



Alcatel-Lucent 5620

SERVICE AWARE MANAGER | RELEASE 8.0 R5

Alcatel-Lucent 5650

CONTROL PLANE ASSURANCE MANAGER | RELEASE 4.0 R5

INSTALLATION AND UPGRADE GUIDE
3HE 05718 AAAE TQZZA Edition 01

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Alcatel-Lucent License Agreement

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- 8.6 All notices shall be sent to the parties at the addresses listed above, or to any such address as may be specified from time to time. Notices shall be deemed to have been received five days after deposit with a post office when sent by registered or certified mail, postage prepaid and receipt requested.
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- 8.10 This Agreement shall be governed by and construed in accordance with the laws of the Province of Ontario. The application of the United Nations Convention on Contracts for the International Sale of Goods is hereby expressly excluded.

Preface

The Preface provides general information about the 5620 Service Aware Manager documentation suite.



Note — You can use the Search function of Acrobat Reader (File→Search) to find a term in a PDF of this document. To refine your search, use appropriate search options (for example, search for whole words only or enable case-sensitive searching). You can also search for a term in multiple PDFs at once. For more information, see the Help for Acrobat Reader.

5620 SAM documentation suite

The 5620 SAM documentation suite describes the 5620 SAM and the associated network management of its supported devices. Contact your Alcatel-Lucent support representative for information about specific network or facility considerations.

Table 1 lists the documents in the 5620 SAM documentation suite.

Table 1 5620 SAM customer documentation suite

Guide	Description
5620 SAM core documentation	
<i>5620 SAM / 5650 CPAM Installation and Upgrade Guide</i>	<p>The <i>5620 SAM / 5650 CPAM Installation and Upgrade Guide</i> contains configuration information and procedures for:</p> <ul style="list-style-type: none">• Installing the 5620 SAM on a Windows or Solaris platform• Installing database, server, and client components in a standalone configuration on a Windows or Solaris platform• Installing database, server, and client components in a redundant configuration on a Solaris platform

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Guide	Description
<i>5620 SAM User Guide</i>	<p>The <i>5620 SAM User Guide</i> uses a task-based format. Each chapter contains:</p> <ul style="list-style-type: none"> • A workflow that describes the steps for configuring and using the functionality • A list of the GUI menus or commands related to the functionality • A list of the procedures related to the functionality • Detailed procedures that list the configurable parameters on the associated forms <p>There are dynamic links between the procedures in the <i>5620 SAM User Guide</i> and the parameter descriptions in the <i>5620 SAM Parameter Guide</i>. See Procedure 2 for more information.</p>
<i>5620 SAM Parameter Guide</i>	<p>The <i>5620 SAM Parameter Guide</i> provides:</p> <ul style="list-style-type: none"> • Parameter descriptions that include value ranges and default values • Parameter options and option descriptions • Parameter and option dependencies • Parameter mappings to the 5620 SAM-O XML equivalent property names <p>There are dynamic links between the procedures in the <i>5620 SAM User Guide</i> and the parameter descriptions in the <i>5620 SAM Parameter Guide</i>. See Procedure 2 for more information.</p>
<i>5620 SAM Statistics Management Guide</i>	<p>The <i>5620 SAM Statistics Management Guide</i> provides information on how to perform the following tasks using the 5620 SAM:</p> <ul style="list-style-type: none"> • Manage statistics collection • View a list of the MIB counters that are available for collection
<i>5620 SAM Scripts and Templates Developer Guide</i>	<p>The <i>5620 SAM Scripts and Templates Developer Guide</i> provides information that allows you to develop, manage, and execute CLI-based or XML-based scripts or templates. The guide is intended for developers, skilled administrators, and operators who are expected to be familiar with the following:</p> <ul style="list-style-type: none"> • CLI scripting, XML, and Velocity engine • Basic scripting or programming • 5620 SAM functionality
<i>5620 SAM Troubleshooting Guide</i>	<p>The <i>5620 SAM Troubleshooting Guide</i> provides task-based procedures and user documentation to:</p> <ul style="list-style-type: none"> • Collect data to help resolve issues in the network and network management domains • Identify the root cause and plan corrective action for: <ul style="list-style-type: none"> • Alarm conditions on a network object or customer service • Problems on customer services with no associated alarms • List problem scenarios, possible solutions, and tools to help check: <ul style="list-style-type: none"> • Network management LANs • PC and Sun platforms, and operating systems • 5620 SAM client GUIs and client OSS applications • 5620 SAM servers • 5620 SAM databases
<i>5620 SAM Maintenance Guide</i>	<p>The <i>5620 SAM Maintenance Guide</i> provides procedures for:</p> <ul style="list-style-type: none"> • Generating baseline information for 5620 SAM applications • Performing daily, weekly, monthly, and as-needed maintenance activities for 5620 SAM-managed networks
<i>5620 SAM Integration Guide</i>	<p>The <i>5620 SAM Integration Guide</i> provides information about the ability of the 5620 SAM to integrate with additional components.</p>
<i>5620 SAM System Architecture Guide</i>	<p>The <i>5620 SAM System Architecture Guide</i> is intended for technology officers and network planners to increase their knowledge of the 5620 SAM software structure and components. It describes the system structure, software components, and interfaces of the 5620 SAM. In addition, 5620 SAM fault tolerance, security, and network management capabilities are discussed from an architectural perspective.</p>

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Guide	Description
<i>5620 SAM Planning Guide</i>	The <i>5620 SAM Planning Guide</i> provides information on 5620 SAM scalability and recommended hardware configurations.
<i>5620 SAM NE Compatibility Guide</i>	The <i>5620 SAM NE Compatibility Guide</i> provides release-specific information about the compatibility of managed device features in 5620 SAM releases.
<i>5620 SAM Release Description</i>	The <i>5620 SAM Release Description</i> provides information on the new features associated with a 5620 SAM software release.
<i>5620 SAM Glossary</i>	The <i>5620 SAM Glossary</i> defines terms and acronyms used in all of the 5620 SAM documentation.
<i>5620 SAM-O OSS Interface Developer Guide</i>	<p>The <i>5620 SAM-O OSS Interface Developer Guide</i> provides information that allows you to:</p> <ul style="list-style-type: none"> • Use the 5620 SAM-O OSS interface to access network management information. • Learn about the information model associated with the managed network. • Develop OSS applications using the packaged methods, classes, data types, and objects necessary to manage 5620 SAM functionality.
5620 SAM LTE documentation	
<i>5620 SAM LTE ePC User Guide</i>	<p>The <i>5620 SAM LTE ePC User Guide</i> describes how to discover, configure, and manage LTE ePC devices using the 5620 SAM. The guide is intended for LTE ePC network planners, administrators, and operators.</p> <p>Alcatel-Lucent recommends that you review the entire <i>5620 SAM LTE User ePC Guide</i> before you attempt to use the 5620 SAM in your LTE network.</p>
<i>5620 SAM LTE RAN User Guide</i>	<p>The <i>5620 SAM LTE RAN User Guide</i> describes how to discover, configure, and manage the eNodeB using the 5620 SAM. The guide is intended for LTE RAN network planners, administrators, and operators.</p> <p>Alcatel-Lucent recommends that you review the entire <i>5620 SAM LTE RAN User Guide</i> before you attempt to use the 5620 SAM in your LTE network.</p>
<i>5620 SAM LTE Parameter Reference</i>	The <i>5620 SAM LTE Parameter Reference</i> provides a list of all LTE ePC and LTE RAN parameters supported in the 5620 SAM.
<i>5620 SAM-O 3GPP OSS Interface Developer Guide</i>	The <i>5620 SAM-O 3GPP OSS Interface Developer Guide</i> describes the components and architecture of the 3GPP OSS interface to the 5620 SAM. It includes procedures and samples to assist OSS application developers to use the 3GPP interface to manage LTE devices.
<i>5620 SAM LTE Alarm Reference</i>	The <i>5620 SAM LTE Alarm Reference</i> provides a list of LTE ePC and LTE RAN alarms that can be reported in the 5620 SAM GUI.

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Procedure 1 To find the 5620 SAM user documentation

The user documentation is available from the following sources:

- the User_Documentation directory on the product DVD-ROM
- Help→5620 SAM User Documentation in the 5620 SAM client GUI main menu



Note — Users of Mozilla browsers may receive an error message when using the User Documentation Index page (index.html) to open the PDF files in the 5620 SAM documentation suite. The offline storage and default cache values used by the browsers are the cause of the error message.

Alcatel-Lucent recommends changing the offline storage (Mozilla Firefox) or cache (Mozilla 1.7) values to 100 Mbytes to eliminate the error message.

Procedure 2 To view *5620 SAM Parameter Guide* parameter descriptions from the *5620 SAM User Guide*

You can click on a parameter name in a *5620 SAM User Guide* procedure to open the matching parameter description in the *5620 SAM Parameter Guide*. Ensure the following conditions are true beforehand:

- the *5620 SAM Parameter Guide* and *5620 SAM User Guide* are located in and opened from the same directory
 - Adobe Reader Release 5.0 or later is installed
- 1 To view a parameter description when the *5620 SAM User Guide* and the *5620 SAM Parameter Guide* are open:
 - i Open the *5620 SAM User Guide* PDF using Adobe Acrobat.
 - ii Open the *5620 SAM Parameter Guide* PDF using Adobe Acrobat.
 - iii Click on a parameter name in a procedure in the *5620 SAM User Guide*. The parameter description is displayed in the *5620 SAM Parameter Guide*.
 - 2 To view parameter descriptions when only the *5620 SAM User Guide* is open:
 - i Open the *5620 SAM User Guide* PDF using Adobe Acrobat.
 - ii Click on a parameter name in a procedure in the *5620 SAM User Guide*. The *5620 SAM User Guide* closes and the *5620 SAM Parameter Guide* opens to display the parameter description.

-
- iii Double-click on the Previous View button in Adobe Acrobat to re-open the *5620 SAM User Guide*. The *5620 SAM User Guide* opens and displays the parameter from step ii.
 - iv Click on the parameter name from step ii. The parameter description is displayed in the *5620 SAM Parameter Guide*.
-

Prerequisites

Readers of the 5620 SAM documentation suite are assumed to be familiar with the following:

- 5620 SAM software structure and components
- 5620 SAM GUI operations and tools
- Typical 5620 SAM management tasks and procedures
- Node and network management concepts

Conventions

Table 2 lists the conventions that are used throughout the documentation.

Table 2 Documentation conventions

Convention	Description	Example
Key name	Press a keyboard key	Delete
Italics	Identifies a variable	<i>hostname</i>
Key+Key	Type the appropriate consecutive keystroke sequence	CTRL+G
Key-Key	Type the appropriate simultaneous keystroke sequence	CTRL-G
*	An asterick is a wildcard character, which means "any character" in a search argument.	log_file*.txt
↵	Press the Return key	↵
—	An em dash indicates there is no information.	—
→	Indicates that a cascading submenu results from selecting a menu item	Policies→Alarm Policies

Procedures with options or substeps

When there are options in a procedure, they are identified by letters. When there are substeps in a procedure, they are identified by Roman numerals.

Example of options in a procedure

At step 1, you can choose option a or b. At step 2, you must do what the step indicates.

- 1 This step offers two options. You must choose one of the following.
 - a This is one option.
 - b This is another option.
- 2 You must perform this step.

Example of substeps in a procedure

At step 1, you must perform a series of substeps within a step. At step 2, you must do what the step indicates.

- 1 This step has a series of substeps that you must perform to complete the step. You must perform the following substeps.
 - i This is the first substep.
 - ii This is the second substep.
 - iii This is the third substep.
- 2 You must perform this step.

Measurement conventions

Measurements in this document are expressed in metric units and follow the *Système international d'unités* (SI) standard for abbreviation of metric units. If imperial measurements are included, they appear in brackets following the metric unit.

Table 3 lists the measurement symbols used in this document.

Table 3 Bits and bytes conventions

Measurement	Symbol
bit	b
byte	byte
kilobits per second	kb/s

Important information

The following conventions are used to indicate important information:



Warning — Warning indicates that the described activity or situation may, or will, cause equipment damage or serious performance problems.



Caution — Caution indicates that the described activity or situation may, or will, cause service interruption.



Note — Notes provide information that is, or may be, of special interest.

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Getting started

1 — Before you begin

1 — Before you begin

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1.1 Overview

This chapter contains general and OS-specific information about the deployment of the Alcatel-Lucent 5620 SAM software components in a network.



Caution 1 — The upgrade or conversion to redundancy of the Alcatel-Lucent 5620 SAM software components in a network requires a thorough understanding of 5620 SAM system administration and OS-specific requirements. The conversion or upgrade must be planned, documented, and tested in advance on a lab system that is representative of the target live network.

Contact Alcatel-Lucent technical support to assess the upgrade requirements for your network implementation of the 5620 SAM. Alcatel-Lucent offers an upgrade service that should be engaged for upgrades and conversions to redundancy.

Caution 2 — Alcatel-Lucent supports 5620 SAM software deployment only under the conditions described in this guide, the *5620 SAM Planning Guide*, and the *5620 SAM Release Notice*.

Guide conventions

A 5620 SAM software DVD-ROM is platform-specific. View the DVD-ROM label to verify that you have the correct DVD-ROM.

This document uses the following terminology:

- **station**—a discrete physical processing entity, such as a Windows PC or a Solaris workstation
- **peer**—means an equivalent component in the same 5620 SAM system. For example, in a redundant deployment, the peer main server of the primary main server is the standby main server, and the peer main server of the standby main server is the primary main server. The term peer is used because the terms primary and standby are relative to the functional role of a component, and these roles can change.

The figures and associated text in this guide display a typical or default parameter value when appropriate. A default value is acceptable in many deployment environments, but must be validated against specific requirements, for example, firewall constraints. See the *5620 SAM Planning Guide* and the current *5620 SAM Release Notice* for more information, or contact Alcatel-Lucent technical support.

An installer panel field that has a colored background is a mandatory field that requires a valid entry before you can proceed to the next panel.

The 5620 SAM installer prompts the user before it creates a file system directory.

5620 SAM client installation, upgrade, and configuration updates

The following 5620 SAM client software installation methods are available:

- using the client installer on the 5620 SAM software DVD-ROM
- using a web browser that connects to a 5620 SAM main server

Each method sets up a basic client environment that includes the 5620 SAM auto-client update utility. The auto-client update utility then downloads the client software from a 5620 SAM main server and installs it.

The 5620 SAM main server must be installed and initialized before you can use a web browser to install the auto-client update utility and client software. You can use the DVD-ROM client installer to install the auto-client update utility, regardless of the main server state, but the main server must be initialized before the auto-client update utility can install the client software.

See chapters 2 and 3 for the appropriate client installation procedure.

The auto-client update utility can also be used for the central management and automatic distribution of client software upgrades and configuration changes.

During startup, the client software checks for available updates on a 5620 SAM main server. If a configuration change is available, the client automatically applies it. If a client software upgrade is available, the client applies the upgrade in response to a user prompt.

Client software upgrades

After a 5620 SAM main server is upgraded, a GUI client that connects to the server automatically detects the release mismatch and attempts an upgrade to the server release level.

During a software upgrade, a 5620 SAM client downloads and installs only the files required for the upgrade. The upgrade process removes previously downloaded local 5620 SAM files that are not required by the updated client software.

Client configuration changes

When the GUI clients that connect to a 5620 SAM server require a configuration change, an administrator updates the global client configuration stored on a main server. Each client detects the update at the start of the next client session and applies the required configuration changes. See the *5620 SAM User Guide* commissioning chapter for information about updating client configurations.

By default, the client configuration after an automatic update matches the server configuration, but this behavior is configurable using client startup options. To retain a customized configuration on a client, you can specify that the client does not apply any configuration changes from the server. If a client configuration change is mandatory and affects the customized configuration, you must allow the update and then manually reapply the custom configuration entries. See the *5620 SAM User Guide* GUI chapter for a description of each 5620 SAM client startup option.

Considerations and restrictions

Consider the following before you attempt to use the automatic 5620 SAM client update function.

- When a client detects an error during an auto-update attempt, for example, when the client is unable to connect to the server, it displays a message about the error.
- An auto-client update proceeds only when there is sufficient disk space on the client station. Otherwise, the client displays a message and exits.
- When a GUI client tries to connect to a server that is at an earlier 5620 SAM release than the download server, the client displays a message to this effect, restarts, and tries to connect to the other server in the cluster.
- A client backs up the existing configuration files before it performs a configuration change.
- You can configure a client to use secure communication for automatic update activity. See the *5620 SAM User Guide* SSL configuration chapter for information about configuring secure client communication.
- The user documentation location is configurable during a 5620 SAM server installation. By default, the clients retrieve the documents from a URL, but you can specify a location such as the client file system.

Routing policy migration

Because of 5620 SAM routing policy management changes in Release 7.0, an upgrade from 5620 SAM Release 6.0 or 6.1 removes the current routing policies from the 5620 SAM database. During device discovery after the upgrade, the 5620 SAM creates one new global routing policy object for each uniquely named local policy object that it discovers.

After a 5620 SAM upgrade from Release 6.0 or 6.1, one or more of the following scenarios applies to each new global routing policy object.

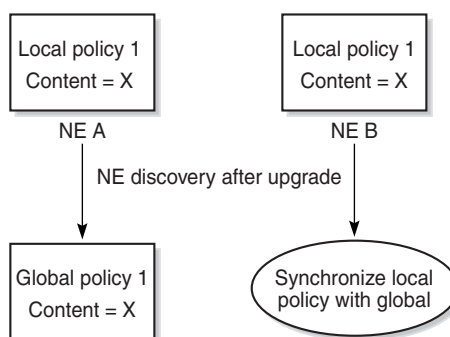
- The global and local policies have the same name and same content.
- The global and local policies have the same name and different content.
- The global and local policies have different names but the same content.
- The global and local policies have different names and different content.



Note — After a 5620 SAM upgrade from Release 6.0 or 6.1, you must perform the routing policy migration described in Procedure [1-1](#) to reconcile the global and local policy differences.

Figure 1-1 shows two local policies that have the same name and content. The first instance of policy 1 that is discovered after the upgrade—the policy on NE A—becomes the global policy. After the upgrade, you can configure the local policy on NE B to remain synchronized with the global policy because the policy content is the same.

Figure 1-1 Same policy name, same content



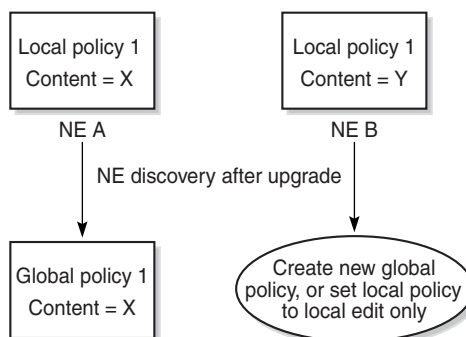
20576

Figure 1-2 shows two local policies that have the same name but different content. The first instance of policy 1 that is discovered after the upgrade—the policy on NE A—becomes the global policy. After the upgrade, the local policy on NE B differs from the global policy that has the same name. To prevent confusion or an accidental overwrite of the policy on NE B by global policy 1, you can create a new global policy using the policy on NE B, if required.



Note — If you leave a local definition unchanged, changes to the global policy do not affect the local definition. The Distribution Mode for a local routing policy definition is set to Local Edit Only during device discovery after an upgrade from Release 6.0 or 6.1.

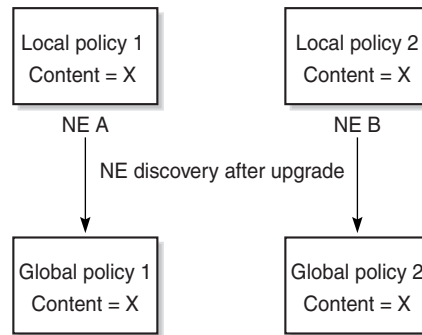
Figure 1-2 Same policy name, different content



20573

Figure 1-3 shows two local policies that have different names but the same content. Each local policy instance becomes a global policy after the upgrade. To simplify policy management, one global policy can be distributed to both NEs and configured to remain synchronized with the global policy. The second policy can be deleted.

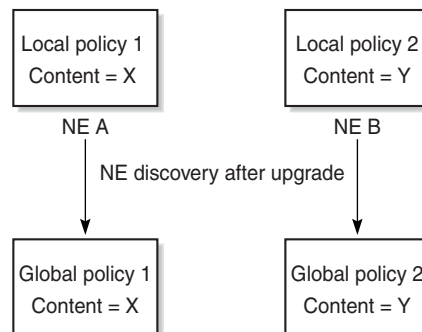
Figure 1-3 Different policy name, same content



20572

Figure 1-4 shows two local policies that have different names and different content. Each local policy instance becomes a global policy after the upgrade.

Figure 1-4 Different policy name, different content



20574

Procedure 1-1 To perform a 5620 SAM routing policy migration

Perform this procedure after a 5620 SAM upgrade from Release 6.0 or 6.1 to ensure that the newly created global routing policies are properly applied to NEs.

- 1 Perform steps 2 to 9 for each of the following routing policy objects by substituting the object for *Object* in each procedure step:
 - Statement
 - Prefix List
 - Community
 - Damping
 - AS Path

- 2 Choose Policies→Routing→*Object* from the 5620 SAM main menu. The Manage Routing Policy - *Objects* form opens.
- 3 Click on the Search button. The new global policies are listed.
- 4 Synchronize each global policy with the appropriate local definition. Perform the following steps for each global policy.
 - i Select the policy and click on the Properties button. The Routing Policy - *Object* (Edit) form opens.
 - ii Click on the Local Definitions tab. The tab displays a list of the local policy definitions that have the same name as the global policy.
 - iii Identify the local definition that you want to be the global policy.
 - iv Click on the Synchronize button. The Synchronize - Routing Policy *Object* form opens.
 - v Select the NE in the Available Nodes panel that has the appropriate local definition and click on the right-facing arrow button. The NE moves to the Selected Node panel.
 - vi Click on the Synchronize button. The 5620 SAM updates the global policy to match the local definition on the specified NE.
 - vii Close the Synchronize - Routing Policy *Object* form.
 - viii Close the Routing Policy - *Object* (Edit) form. The Manage Routing Policy - *Objects* form reappears.
- 5 Audit each global policy to compare it with the local policy definitions. Perform the following steps for each global policy.
 - i Select the global policy and click on the Properties button. The Routing Policy - *Object* (Edit) form opens.
 - ii Click on the Local Definitions tab. The tab displays a list of the local policy definitions that have the same name as the global policy.
 - iii Select all of the local definitions and click on the Policy Audit button. The Policy Audit (Edit) form opens and lists the local policy definitions that are to be compared to the global policy.
 - iv Click on the General tab.
 - v Deselect the Include Non Applicable Attributes parameter.
 - vi Click on the Start Audit button. The policy audit begins. The policy audit is complete when the Stop Audit button is dimmed.
 - vii When the audit is complete, close the Policy Audit (Edit) form. The Routing Policy - *Object* (Edit) form reappears with the Local Definitions tab displayed.

The policy audit raises an alarm against each local definition that does not match the global policy. Each alarmed local definition has a blue highlight.

- 6 Identify the differences between each local definition and the global policy. Perform the following steps for each alarmed local definition that is listed.
 - i Select the local definition and click on the Properties button. The Routing Policy - *Object* - Local Policy (Edit) form opens.
 - ii Click on the Local Audit On button. The Local Audit form opens.
 - iii Click on the OK button. The Local Audit form closes, and the local and global properties forms highlight the policy differences in the following ways:
 - An arrow icon on a tab button indicates a difference between the local and global tab contents.
 - An arrow icon beside a parameter indicates that the parameter has different local and global values.
 - iv Evaluate the policy differences to determine how to manage the local definition.
- 7 For each local policy that differs from the global policy, perform one of the following, based on the evaluation performed in step 6 iv.
 - a If you want the local policy to match the global policy, record the NE ID for use in step 8.
 - b If you do not want the local definition to match the global policy, you can leave the local definition unchanged, or perform the following steps to create a new global policy using the local definition as a template.



Note — If you leave the local definition unchanged, changes to the global policy do not affect the local definition. The Distribution Mode for a local routing policy definition is set to Local Edit Only during device discovery after an upgrade from Release 6.0 or 6.1.

- i Click on the Copy button on the local definition properties form. The Routing Policy - *Object* (Create) form opens.
- ii Specify a unique name for the policy.
- iii Click on the Apply button. The form refreshes with additional buttons.
- iv Click on the Switch Mode button. A dialog box appears.
- v Click on the Yes button. The Configuration Mode changes to Released.
- vi Click on the Distribute button. The Distribute - Routing Policy - *Object* form opens.
- vii Select one or more NEs in the Available Nodes panel that has the appropriate local definition and click on the right-facing arrow button. The NE moves to the Selected Nodes panel.
- viii Click on the Distribute button. The 5620 SAM distributes the new global policy to the specified NEs.
- ix Close the Distribute - Routing Policy - *Object* form.

- x Close the new routing policy properties form. The local definition properties form reappears.
 - xi Close the local definition properties form. The Manage Routing Policy - *Objects* form reappears.
 - xii For each NE to which a new policy is distributed, remove the local definition of the old policy.
- 8 Based on the policy audit results in step 5, set the Distribution Mode of the following local definitions to Sync With Global.
- Each local definition that matches the global policy
 - Each local definition that does not currently match, but that you want to match, the global policy, as recorded in step 7 a
- 9 Close the Manage Routing Policy - *Objects* form.
-

1.2 General 5620 SAM deployment information

The information in this section applies to all platforms. You must comply with the requirements in this section and in the “[5620 SAM deployment on Windows](#)” or “[5620 SAM deployment on Solaris](#)” section, as appropriate, before you attempt a 5620 SAM installation or upgrade.



Caution — Because of 5620 SAM routing policy changes after Release 6.1, you must perform a routing policy migration after an upgrade from 5620 SAM Release 6.0 or 6.1. See “[Routing policy migration](#)” in the “[Overview](#)” section for more information.



Note — It is important to record all information that you specify when you perform procedures in this guide; the information may be required for a subsequent operation. Store the recorded information in a secure location, such as a non-5620 SAM station, for later use.

Platform

The following are general 5620 SAM platform requirements and restrictions. See the appropriate section in this chapter for information about installing or upgrading the 5620 SAM on a specific platform.

- The 5620 SAM installation platform must meet the minimum requirements described in the *5620 SAM Planning Guide* for the 5620 SAM release.
- The system locale must be C or POSIX.
- The 5620 SAM platform must be dedicated to the 5620 SAM application only. 5620 SAM operation may be adversely affected by the activity of another application on the same platform. Alcatel-Lucent does not support the sharing of the 5620 SAM platform with another application.
- The 5620 SAM main server and database components in a 5620 SAM system must be installed on stations that use the same OS at the same patch level.

- Before you install or upgrade a redundant 5620 SAM system, you must enable SSH on each main server, auxiliary server, and database station in the system.
- A 5620 SAM client on a station that runs Windows or Solaris can interact with a 5620 SAM server that runs on any OS in a standalone or redundant configuration.
- A 5620 SAM single-user client or client delegate server cannot be installed on the same station as a 5620 SAM server or database.
- The 5620 SAM OSS and GUI client real-time clocks must always be synchronized with the main server real-time clock. Alcatel-Lucent strongly recommends using NTP or an equivalent time protocol for synchronization.

Table 1-1 lists the platforms that each 5620 SAM component supports.

Table 1-1 Platforms supported by 5620 SAM components

5620 SAM component	Solaris 10 on Sun SPARC station	Solaris 10 on Sun x86 station	Microsoft Windows
Main server (distributed)	✓	✓	✓
Main server with 3GPP interface (distributed)		✓	✓
Database (distributed)	✓	✓	✓
Collocated main server and database	✓	✓	
Collocated database and main server with 3GPP interface		✓	
Auxiliary server	✓	✓	
Client delegate server	✓	✓	
Single-user client	✓	✓	✓

Software

The following are general 5620 SAM software requirements and restrictions.

- You cannot upgrade the 5620 SAM to a release that is chronologically older than the currently installed release. For example, you cannot upgrade from Release 6.0 R8 to 6.1 R4, because Release 6.1 R4 predates Release 6.0 R8.
- The 5620 SAM server and database installers are available in English only.
- The prompts and descriptive text displayed during a client installation are in English; subsequent client upgrades use the language associated with the locale configured for the client on the server.
- An Alcatel-Lucent 5620 SAM license key is required during an 5620 SAM installation or upgrade. Before you install or upgrade a 5620 SAM system, confirm that your license key enables the function that you require and is configured for the number of network objects that you intend to manage.
- You cannot share an existing Oracle installation with the 5620 SAM.
- No other application can use the 5620 SAM Oracle software.
- The Oracle installation files must be in the same directory as the database installer file, for example, the directory on the product DVD-ROM.

- The 5620 SAM supports the upgrade of a 5620 SAM component that is no more than two major releases older than the current release. For example, you can upgrade a 5620 SAM Release 6.0, or 6.1 system to Release 8.0, but you cannot upgrade a Release 5.0 system directly to Release 8.0; you must first perform an intermediate upgrade to at least Release 6.0.
- After an upgrade to an intermediate release, for example, an upgrade from Release 5.0 to Release 6.0 before a final upgrade to Release 8.0, each 5620 SAM main server must be started and allowed to initialize fully before the final upgrade, or the final upgrade fails.
- Ensure that you have sufficient time to complete a 5620 SAM database upgrade. The time required for a database upgrade depends on the platform type, database complexity and tablespace configuration. See the *5620 SAM Planning Guide* for database upgrade time estimates.
- A 5620 SAM software upgrade removes an SSL or HTTPS configuration on a 5620 SAM component. If a component uses SSL or HTTPS before an upgrade, you must enable SSL, and HTTPS, if required, after the upgrade. See the *5620 SAM User Guide* for information about configuring SSL and HTTPS for 5620 SAM components.
- A 5620 SAM software upgrade removes the SSO configuration on a 5620 SAM component. If a component uses SSO before an upgrade, you must reconfigure SSO on the component after the upgrade. See the *5620 SAM Integration Guide* for information about configuring SSO for 5620 SAM components.
- At the beginning of a 5620 SAM server upgrade, the 5620 SAM installation utility backs up specific configuration and log files to a timestamped directory under the installation directory. The utility then deletes directories under the server installation directory. If you have created or customized a file under the server installation directory, you risk losing the file unless you back up the file before the upgrade to a storage location that is unaffected by the upgrade.

Release-specific considerations

The 5620 SAM Release Notice contains important release-specific information. Ensure that you read the Release Notice before you begin a 5620 SAM installation or upgrade.



Note 1 — A 5620 SAM system upgrade from Release 6.0 R1 may remove older NE backups. If the purge mode in the associated backup policy is set to manual, the upgrade disables the manual purge and enables an automatic purge that limits the number of retained NE backups to the default value. See the *5620 SAM User Guide* for more information about configuring NE backup functions.

Note 2 — The 5620 SAM Release 7.0 or later uses an application assurance, or AA, group policy instead of an AA profile policy, and does not support AA profile policies from previous releases. When you upgrade a Release 6.0 or 6.1 5620 SAM system to Release 7.0 or later, the 5620 SAM automatically deletes the existing AA policies.

Note 3 — After an upgrade from a release earlier than 8.0 R5, the 5620 SAM clears the existing EquipmentRemoved and ContainingEquipmentMissing alarms during network resynchronization.

Network

The following are general 5620 SAM network requirements and restrictions.

5620 SAM management network

The following conditions apply to the 5620 SAM management domain:

- Specifying a TCP or UDP port other than the default during an installation or upgrade can affect firewall configuration; ensure that you record changes to default port numbers and make the ports available through firewalls.
- You must use an IP address to identify a database station.
- When you use hostname to identify a 5620 SAM component, you must use local hostname resolution.
- Alcatel-Lucent does not support DNS or NIS name resolution on a main or auxiliary server, and a pre-existing name service must not conflict with 5620 SAM server address resolution. Alcatel-Lucent supports DNS or NIS name resolution on a 5620 SAM GUI or OSS client.
- Network addressing for 5620 SAM components has the following requirements:
 - An IP address that a 5620 SAM client, database, or server uses to communicate with another 5620 SAM component must be an IPv4 address in dotted-decimal format. Support for IPv6 addressing is limited to network discovery and management by 5620 SAM servers on Solaris.
 - You cannot specify “localhost” or an alias IP address.



Caution — Alcatel-Lucent strongly recommends the use of hostname resolution for GUI and OSS client communication with a 5620 SAM main server when there is a NAT firewall between the main server and clients.

When a 5620 SAM main server and clients use IP addresses to traverse a NAT firewall, the firewall must be configured with an address loopback mechanism for each main server and client.

Managed network and external systems

The following conditions apply to the network of 5620 SAM- managed devices and to systems with which the 5620 SAM is integrated:

- Before you upgrade a 5620 SAM system, you must confirm that the new 5620 SAM software release supports the releases of the 5620 SAM-managed devices. If this is not the case, you must perform one of the following before you attempt the upgrade, or service disruption may occur.
 - Upgrade the devices to a release that the new 5620 SAM release supports.
 - Use a 5620 SAM client to unmanage the devices and remove them from the 5620 SAM-managed network.
- Before you upgrade a 5620 SAM system, you must ensure that the new 5620 SAM software is compatible with the software release level of each connected external system, for example, the 5620 NM. Contact Alcatel-Lucent technical support about 5620 SAM and external system compatibility.



Note 1 — If you have a 5620 SAM system that manages one or more OmniSwitch devices as generic NEs, you must unmanage and delete the OmniSwitch generic NEs before you upgrade the 5620 SAM software.

You can manage the devices directly, rather than as generic NEs, when the 5620 SAM upgrade is complete.

Note 2 — Because of changes in 5620 SAM Release 7.0, a 5620 SAM upgrade disables the resynchronization of a MIB entry in some devices if the MIB entry has the former default polling interval of 24 h. The affected devices are the 7210 SAS-E, 7450 ESS, 7701 CPAA, 7705 SAR, 7710 SR, and 7750 SR. A MIB entry that has a non-default polling interval is unaffected by a 5620 SAM upgrade.

Note 3 — If you are upgrading the 5620 SAM from Release 6.0 or 6.1, before the upgrade you must update the SNMP configuration of each 7750 SR that you manage using SNMPv3. Otherwise, the 5620 SAM cannot perform mediation of VPRN objects on the device. See Procedure [2-6](#) or [4-1](#) for more information.

Note 4 — Release 6.0 and earlier 5620 SAM ping policies use an ICMP ping. Release 6.1 and later ping policies use a TCP ping. After a 5620 SAM upgrade from Release 6.0, you may need to reconfigure dependent network functions such as NE CPM filters accordingly.

1.3 5620 SAM LTE-specific requirements

The following installation and upgrade conditions apply to a 5620 SAM deployment that is to be used for 5620 SAM LTE network management.

- The 5620 SAM 3GPP OSS interface is supported only on Sun x86-based platforms.
- A 5620 SAM LTE system that manages one or more eNodeB devices has special disk partitioning requirements. See [“Disk configurations and partitioning”](#) in section 1.5 for more information.
- Before you can use a 5620 SAM LTE system to manage one or more eNodeB devices, the 5620 SAM and eNodeBs must use a common time-synchronization server that runs a protocol such as NTP. 5620 SAM eNodeB PM statistics collection fails when the eNodeB and 5620 SAM real-time clocks are not synchronized.
- Some 5620 SAM LTE RAN functions, for example, performance measurement transfers and network snapshots, require configuration before the 5620 SAM can manage an eNodeB. See the *5620 SAM LTE RAN User Guide* for eNodeB management configuration information.

1.4 5620 SAM deployment on Windows

This section describes the 5620 SAM 8.0 deployment requirements and restrictions that are specific to a Microsoft Windows platform. You must comply with the requirements in the [“General 5620 SAM deployment information”](#) section and in this section before you attempt to perform a procedure in chapter 2.

The following components comprise a 5620 SAM system on Windows:

- one main server
- one database
- one or more single-user clients, or clients that connect through a Solaris-based client delegate server

Network

The following are 5620 SAM network requirements and restrictions for Windows.

- During a server or database installation or upgrade, you must use an IP address to identify the server.
- During a client installation, you can specify a hostname instead of an IP address to identify the server. A client upgrade, however, occurs automatically through a connection to a predefined server in the client configuration. See the *5620 SAM User Guide* for information about updating the client configuration.
- You must configure local hostname resolution on each client and server station before you can specify a hostname during an installation or upgrade.

Platform

The following are 5620 SAM platform requirements and restrictions for Windows.

- Alcatel-Lucent supports the installation or upgrade of a 5620 SAM component on an x86-based station that runs one of the following Windows OSs:
 - Windows 2000 Professional, 32-bit edition
 - Windows 2003, 32-bit edition
 - Windows XP Professional, 32-bit edition
 - Windows Vista Business, 32-bit edition (5620 SAM client only)
 - Windows Vista Ultimate, 32-bit edition (5620 SAM client only)
- Windows XP requires a hotfix before the platform can support a 5620 SAM database installation or upgrade. See [chapter 2](#) for more information.
- Alcatel-Lucent does not support 5620 SAM installation on Windows when Windows is installed in a virtual environment.
- Before you attempt to install or upgrade a component on Windows 2003, you must enable Windows XP compatibility for the installer utility executable file. See the appropriate Microsoft product documentation for more information.
- Alcatel-Lucent supports 5620 SAM system deployment on Windows in a distributed standalone configuration only; the main server and database must be installed on separate stations.
- The 5620 SAM does not support the installation of a 5620 SAM auxiliary server on Windows or the use of an auxiliary server in a Windows 5620 SAM system.

Security

The following are 5620 SAM security requirements and restrictions for Windows.

- The user that installs or upgrades a 5620 SAM server or database requires local administrator account privileges.
- The user that installs a 5620 SAM client requires local user privileges only.
- The user that starts an installed 5620 SAM client must be the user that installed the client software, or a user with sufficient permissions on the client files and directories, such as a local administrator.
- The user that uninstalls the 5620 SAM client software must be the user that installed the client software, or a user with local administrator privileges.

1.5 5620 SAM deployment on Solaris

This section describes the 5620 SAM 8.0 deployment requirements and restrictions that are specific to a Sun Solaris platform. You must comply with the requirements in the [“General 5620 SAM deployment information”](#) section and in this section before you attempt to perform a Solaris-specific procedure in this guide.

The following components comprise a 5620 SAM system on Solaris:

- one main server in a standalone deployment, or two in a redundant deployment
- one database in a standalone deployment, or two in a redundant deployment

- one or more auxiliary servers (optional)
- one or more single-user clients or client delegate servers



Note 1 — A redundant 5620 SAM system upgrade requires a network-management outage and must be performed only during a scheduled maintenance period of sufficient duration for the upgrade.

Note 2 — The 5620 SAM requires Solaris 10. An existing 5620 SAM system on Solaris 9 must be upgraded to Solaris 10. See [“Upgrading from Solaris 9 to Solaris 10”](#) in this section for more information.

Network

The following are 5620 SAM network requirements and restrictions for Solaris.

- If you move a standalone 5620 SAM main server to a different station during a cross-platform migration, Alcatel-Lucent recommends that you remove the trap-target entries for the former server from the SNMP configuration of each NE.
- A 5620 SAM main server listens for GUI and OSS client communication on only one interface unless you specify a hostname for the main server during an installation or upgrade.
- During a main server installation or upgrade, you must use hostnames to identify the main server interfaces under the following conditions:
 - when the OSS and GUI clients communicate with a main server using multiple IP addresses for the main server
 - when the OSS and GUI clients use different addresses to communicate with a main server through one interface on the main server
- When two components use hostnames to communicate, the `/etc/hosts` file on each component station must contain the following local entries:
 - an entry that maps the hostname assigned to the interface on the other component to the IP address used to reach the other component
 - an entry that maps the hostname of the other component station to each IP address used to reach the other component
- Using NAT adds an extra level of complexity to a 5620 SAM network. The `/etc/hosts` file on each component station must contain the correct public and private address entries for reaching other components at the following times:
 - during normal operation
 - after a 5620 SAM component or network component failure
- A 5620 SAM main server can use IPv6 addressing for network discovery and management only, and only if an IPv6 server address is specified during a server installation or upgrade.



Caution — Before you can use a 5620 SAM system to manage one or more eNodeB devices, the 5620 SAM and eNodeBs must use a common time-synchronization server that runs a protocol such as NTP. 5620 SAM eNodeB PM statistics collection fails when the eNodeB and 5620 SAM real-time clocks are not synchronized.

Platform

The following are 5620 SAM platform requirements and restrictions for Solaris. See the *5620 SAM Release Notice* for a list of the required Solaris patches.



Caution 1 — A Solaris x86-based 5620 SAM station requires Solaris OS patch 139556-08 or higher. Contact Sun Microsystems for information about obtaining the required patch software.

Caution 2 — A Sun Fire T1000 or T2000 5620 SAM station requires Solaris OS patch 118833-18 or higher. Contact Sun Microsystems for information about obtaining the required patch software.

- 5620 SAM deployment on Solaris in a live network requires a station that has at least two hard disks. Alcatel-Lucent supports a one-disk layout only for lab trials or for demonstration purposes.
- 5620 SAM component installation is supported for Solaris 10 in 64-bit mode on a Sun SPARC or x86-based station.
- The Solaris forcedirectio partition option in the /etc/vfstab file does not need to be enabled on a disk partition in a 5620 SAM system.
- You can deploy a colocated or distributed 5620 SAM system in a standalone or a redundant configuration.
- In a redundant 5620 SAM deployment, the main server time zones must match.
- When a 5620 SAM database station has multiple CPUs, the 5620 SAM installation utility uses Oracle parallel processing to speed a database upgrade.
- If the 5620 SAM is expected to collect statistics on a large scale, as defined in the *5620 SAM Planning Guide*, Alcatel-Lucent requires the use of a disk array with the 5620 SAM database to increase system performance.
- The Solaris release and patch levels on all main server, auxiliary server, and database components in a 5620 SAM deployment must be identical.
- The 5620 SAM does not support the use of Solaris zones.
- The Solaris TFTP server conflicts with the 5620 SAM TFTP server. The Solaris TFTP server must be disabled on a 5620 SAM server.
- Alcatel-Lucent recommends that you disable the Solaris webconsole service on each station in a 5620 SAM system.
- If you plan to convert a standalone 5620 SAM system to a redundant system and plan to upgrade the system, you must perform the upgrade before the conversion.
- You must relink the Oracle executable files after you apply a Solaris OS patch or after a Solaris OS upgrade. See the *5620 SAM Maintenance Guide* for more information.
- Table 1-16 lists the Solaris packages that the 5620 SAM requires in addition to a Solaris core distribution. The 5620 SAM may also be installed on a Solaris Entire Distribution installation with the OEM Support option. See the appropriate Solaris OS documentation for more information about package installation.
- An auxiliary or client-delegate server requires a dedicated station. Alcatel-Lucent does not support the sharing of an auxiliary or client-delegate server station with another 5620 SAM component.

- An auxiliary server must be accessible to each main server and database in a redundant 5620 SAM deployment. Optimally, all components in a deployment are in the same LAN and have high-quality network interconnection.
- The 5620 SAM supports the use of Solaris IP network multipathing, or IPMP, only when IPMP is deployed in an active-standby configuration. See the appropriate Solaris documentation for information about configuring IPMP.

Security

The following are 5620 SAM security requirements and restrictions for Solaris.

- A 5620 SAM server installation, or a server upgrade from Release 6.0, creates a user account called samadmin that is required for 5620 SAM operation and administration.
 - The samadmin account is created on a main, auxiliary, or client delegate server.
 - The account home directory is the 5620 SAM server installation directory; the samadmin user is the owner of this directory. The samadmin user owns most of the files and directories in the installation directory; the root user owns only a few files and directories.
 - The root user or a root-equivalent user must assign a password to the samadmin user after an installation or upgrade creates the account.
 - Only the samadmin user can start or stop a 5620 SAM server.
 - Only the root and samadmin users can modify the server configuration and run server scripts.
 - Server uninstallation does not remove the samadmin account.
 - Root user privileges are required for some low-level functions.
- The Oracle management user requires full read and write permissions to the 5620 SAM database installation directory and any specifically created partitions, for example, /opt/5620sam.
- The user that installs a 5620 SAM client requires local user account privileges.
- The user that starts a 5620 SAM client must be the user that installs the client software, or another user that has read, write, and execute privileges on the client files and directories.
- A 5620 SAM domain name defines the network-management domain to which a 5620 SAM component belongs and must be unique to a network. A 5620 SAM component can interact only with other 5620 SAM components in the same 5620 SAM domain. During 5620 SAM installation, you must specify the same domain name for all components in a 5620 SAM system.
- Alcatel-Lucent supports the disabling of Solaris services using the Solaris “Secure by default” feature on 5620 SAM stations. The feature disables network listening for Solaris services that do not use SSH.

The following conditions apply to enabling the feature in a 5620 SAM system:

- You must ensure that SSH is functioning properly for remote access before you disable network services such as Telnet
- You must enable the feature only while the 5620 SAM is shut down during a maintenance period of sufficient duration.
- You must re-enable the NTP client service on a station after you enable the feature.
- You must consult the appropriate Solaris documentation for information about enabling the feature and the services that are affected by enabling the feature.

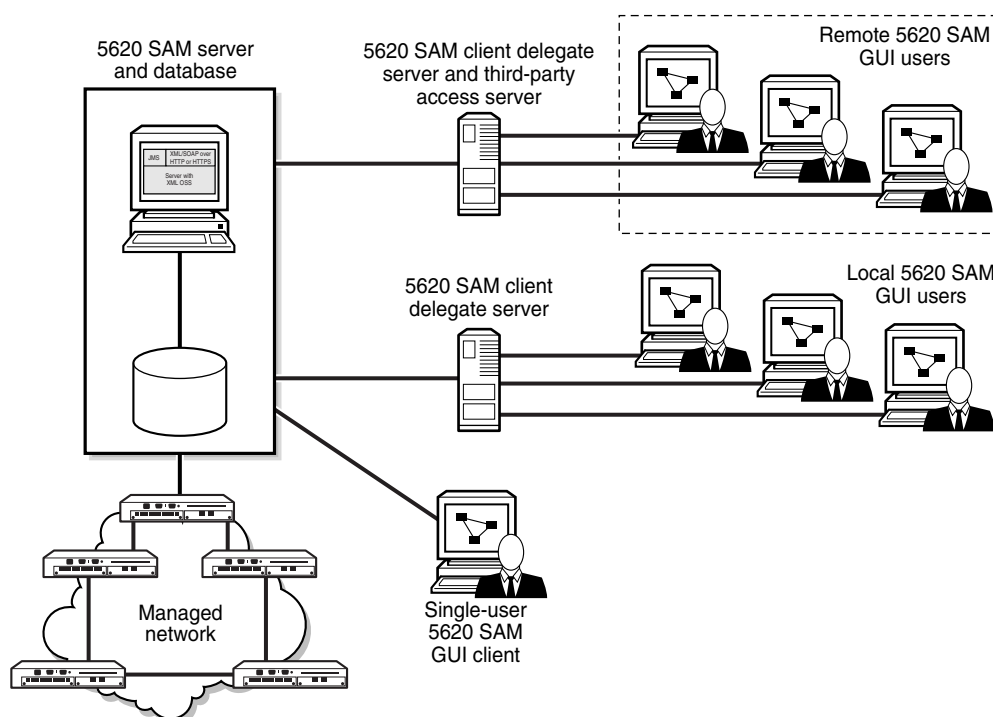
Client delegate servers

The 5620 SAM supports the use of one or more client delegate servers in the management network. A 5620 SAM client delegate server supports simultaneous 5620 SAM client GUI sessions using one client software installation. A client delegate server can host local and remote user sessions, and supports the use of a third-party remote access tool such as a Citrix server.

A 5620 SAM client GUI session that is opened through a client delegate server is functionally the same as a single-user client session. The client delegate server locally stores the files that are unique to each user session, such as the client logs and GUI preference files, using a directory structure that includes the OS username.

Figure 1-5 shows two client delegate servers that are deployed in a 5620 SAM management network. Multiple local users log in to a client delegate server directly. Multiple remote users log in through a client delegate server that hosts a third-party access tool such as a Citrix access gateway. Another local user opens a session on a single-user client station.

Figure 1-5 Client delegate server configuration



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A 5620 SAM main server monitors the registered client delegate servers and displays information about them in the GUI. To register a client delegate server, you specify the client delegate server IP address during main server installation or configuration.

You can use the 5620 SAM client GUI to list the following:

- registered client delegate servers and the availability of each server
- active client delegate server sessions

- active client sessions on a specific client delegate server
- active client sessions for a specific 5620 SAM user

If a client delegate server becomes unreachable, the 5620 SAM raises an alarm and changes the color of the associated session entries in the GUI. The alarm clears when the server is again reachable.

The number of allowed 5620 SAM client sessions on a client delegate server is configurable as a threshold using the 5620 SAM GUI. If a user tries to open a client session that reaches or exceeds the threshold, the session proceeds and the client delegate server raises an alarm. This threshold-crossing function can help to balance the session load across multiple client delegate servers. You require the Update user permission on the Server package to configure the threshold. See the *5620 SAM User Guide* for more information.

You can use the client software on a client delegate server from the local console. Alcatel-Lucent recommends that you install a client delegate server, rather than a single-user client, to facilitate the deployment of additional clients.

The following restrictions apply to client delegate servers.

- Client delegate server installation is supported only on Solaris.
- Alcatel-Lucent supports the installation of one client delegate server on a station.
- Only the root user can perform a client delegate server installation, configuration, upgrade, or uninstallation.
- A user that opens a session on a client delegate server must belong to the client delegate server user group named sam; this user group is created during client delegate server installation, if the user group does not exist.
- You cannot change a 5620 SAM single-user client to a client delegate server.
- A client delegate server connects to only one release of 5620 SAM main server; multiple main servers to which the client connects must be the same release.

Upgrading from Solaris 9 to Solaris 10

You must upgrade an existing 5620 SAM system on Solaris 9 to Solaris 10 before you can upgrade the 5620 SAM software. The workflow to upgrade Solaris depends on the 5620 SAM release from which you are upgrading.

Upgrading from 5620 SAM Release 6.0

The following is the Solaris 10 upgrade workflow for 5620 SAM Release 6.0.

- 1 Upgrade Solaris on each database, main or auxiliary server, and client.
- 2 Relink the Oracle executable files on the database station. See the *5620 SAM Maintenance Guide* for more information.
- 3 Upgrade the 5620 SAM software.

Upgrading from 5620 SAM Release 6.1

The following is the Solaris 10 upgrade workflow for 5620 SAM Release 6.1.

- 1 Upgrade Solaris on each database, main or auxiliary server, and client.
- 2 Relink the Oracle executable files on the database station. See the *5620 SAM Maintenance Guide* for more information.
- 3 Perform the following on each 5620 SAM main server and auxiliary server to create the samadmin user account:



Note 1 — After you upgrade a 5620 SAM Release 6.1 server to Solaris 10, only the samadmin user can start the server.

Note 2 — You must use the 5620 SAM Release 6.1 DVD-ROM, not the new software DVD-ROM, to create the samadmin user account.

- Start the server installer as the root user.
 - Choose the Main Server Configuration or Auxiliary Server Configuration option, as required.
 - Respond to the installer prompts; accept the parameter values on each panel.
- 4 Upgrade the 5620 SAM software.

Disk configurations and partitioning

This section describes the hard-disk configuration guidelines and restrictions for 5620 SAM software components on Solaris stations. The partition sizes are based on the use of 73-Gbyte or 146-Gbyte hard disks. You may need to adjust the partition sizes to accommodate disks of a different capacity.

If a 5620 SAM system is expected to collect statistics on a large scale, Alcatel-Lucent requires that you include a disk array in the database disk layout. See the *5620 SAM Planning Guide* for scaling guidelines related to statistics collection. Contact Alcatel-Lucent technical support for information about using a disk array with the 5620 SAM.



Caution 1 — The Solaris forcedirectio partition option is not required on 5620 SAM disk partitions. Alcatel-Lucent strongly recommends that you disable this option on each 5620 SAM disk partition. See Procedure 1-2 for information about disabling the forcedirectio option.

Caution 2 — Each disk partition described in this section must be a mounted partition and not a symbolic link. The 5620 SAM does not support the use of symbolic links to represent partitions.



Note — For each database disk layout in this section, the Oracle management user home directory specified by the ORACLE_HOME environment variable is /opt/5620sam/oracle10r2.

Using RAID with the 5620 SAM

Alcatel-Lucent supports the use of RAID 0, or disk striping, only on Sun workstations. The disk I/O performance of RAID 0 is required only for a 5620 SAM database that has a high transaction rate, as defined in the *5620 SAM Planning Guide*. Alcatel-Lucent does not recommend using software-based RAID 0.

Alcatel-Lucent supports the use of RAID 1, or disk mirroring, only on Sun workstations. When extra system resilience is required, Alcatel-Lucent recommends the use of 5620 SAM platform redundancy rather than RAID 1, because RAID 1 may affect system performance. If RAID 1 is used, RAID 1 must be hardware-based and have the number of disks recommended in the *5620 SAM Planning Guide*.



Note — Alcatel-Lucent is not responsible for the installation, administration, or recovery of RAID on a 5620 SAM platform.

Partitioning guidelines

Table 1-2 describes where to find disk partitioning information for 5620 SAM components in different deployment types.

Table 1-2 Disk partitioning guidelines by deployment type

Deployment type	Components	Number of disks	See in this section
Collocated	Main server and database	1	One-disk collocated main server and database partitioning
		2	Two-disk collocated main server and database partitioning
		4	Four-disk collocated main server and database partitioning
		>4	Using more than four disks for a database or collocated system
Distributed	Main server	1	One-disk main server partitioning
		2	Two-disk main server partitioning
	Database	1	One-disk database partitioning
		2	Two-disk database partitioning
		4	Four-disk database partitioning
		>4	Using more than four disks for a database or collocated system
—	Statistics-collection auxiliary server	1	One-disk statistics-collection auxiliary server partitioning
		2	Two-disk statistics-collection auxiliary server partitioning
		4	Four-disk statistics-collection auxiliary server partitioning
	Call-trace auxiliary server	4	Call-trace auxiliary server partitioning
	Client or client delegate server	1	Client or client delegate server partitioning

One-disk collocated main server and database partitioning

Table 1-3 lists the recommended partition configuration for a single disk on a Solaris station that hosts the 5620 SAM main server and database applications. The recommendations apply when only one disk is available for use by the 5620 SAM main server and database, or when two disks are available but one disk is used as a physical mirror of the other disk.



Caution — Alcatel-Lucent does not support the use of a one-disk layout for a collocated 5620 SAM system deployment in a live network. A one-disk layout is supported only for lab trials or for demonstration purposes.



Note 1 — You can install the 5620 SAM on a single 73-Gbyte disk, but the disk space may be insufficient to accommodate an upgrade, depending on the database size. Alcatel-Lucent recommends using multiple disks for increased performance and to provide additional space for 5620 SAM system components.

Note 2 — The /opt/5620sam partition requires an additional 10 Gbytes above the recommended minimum for each 1000 eNodeB devices in the managed network.

Table 1-3 One-disk collocated partitioning scheme

Partition	Content	Size (Gbytes)	
		73-Gbyte disk	146-Gbyte disk
/	root, including /usr	10	15
—	swap	8	8
/var	var	3	3
/opt/5620sam (see Note 2 above table)	5620 SAM main server and database software	10	20
/opt/5620sam/dbbackup	Database backups	9	33
/opt/5620sam/samdb/tablespace	Database tablespaces and database redo logs	20	40
/opt/5620sam/samdb/archivelog	Database archive logs	8	16

Two-disk collocated main server and database partitioning

Table 1-4 lists the recommended partition configuration for two disks on a Solaris station that hosts the 5620 SAM main server and database applications. The recommendations apply when only two disks are available for use by the 5620 SAM main server and database, or when two pairs of disks are available but one disk pair is used as a physical mirror of the other disk pair.



Note 1 — Alcatel-Lucent recommends 146-Gbyte hard disks for a 5620 SAM installation. Existing 73-Gbyte disks are sufficient for a 5620 SAM upgrade, but Alcatel-Lucent recommends that you upgrade to 146-Gbyte disks to accommodate system expansion.

Note 2 — The /opt/5620sam partition requires an additional 10 Gbytes above the recommended minimum for each 1000 eNodeB devices in the managed network.

Table 1-4 Two-disk collocated partitioning scheme

Partition	Content	Size (Gbytes)	
		73-Gbyte disk	146-Gbyte disk
Disk 1			
/	root, including /usr	10	15
—	swap	8	8
/var	var	7 (3 minimum)	7 (3 minimum)
/opt/5620sam (see Note 2 above table)	5620 SAM main server and database software	15 (10 minimum)	41
/opt/5620sam/dbbackup	Database backups	24	60
/opt/5620sam/samdb/redolog	Database redo logs	8	8
Disk 2			
/opt/5620sam/samdb/archivelog	Database archive logs	15	40
/opt/5620sam/samdb/tablespace	Database tablespaces	40	80
/opt/5620sam/samdb/tablespace/statstbs01 /opt/5620sam/dbbackup/staging	Accounting statistics tablespace (optional)	10	10
	Accounting statistics staging directory (optional)	—	5
At operator discretion	Customer data (can be partitioned according to customer requirements)	Remainder	Remainder

Four-disk collocated main server and database partitioning

Table 1-5 lists the recommended partition configuration for four disks on a Solaris station that hosts the 5620 SAM main server and database applications. The recommendations apply when only four disks are available for use by the 5620 SAM main server and database, or when two sets of four disks are available but one disk set is used as a physical mirror of the other disk set.



Note 1 — Alcatel-Lucent recommends 146-Gbyte hard disks for a 5620 SAM installation. Existing 73-Gbyte disks are sufficient for a 5620 SAM upgrade, but Alcatel-Lucent recommends that you upgrade to 146-Gbyte disks to accommodate system expansion.

Note 2 — The /opt/5620sam partition requires an additional 10 Gbytes above the recommended minimum for each 1000 eNodeB devices in the managed network.

Table 1-5 Four-disk collocated partitioning scheme

Partition	Content	Size (Gbytes)	
		73-Gbyte disk	146-Gbyte disk
Disk 1			
/	root, including /usr	10	15
—	swap	8	8
/var	var	7 (3 minimum)	7 (3 minimum)
/opt/5620sam (see Note 2 above table)	5620 SAM main server and database software	29 (15 minimum)	45
/opt/5620sam/samdb/redolog	Database redo logs	8	8
/opt/5620sam/server/xml_output	Output of OSSl file-export operations	—	10
At operator discretion	Customer data (can be partitioned according to customer requirements)	Remainder	Remainder
Disk 2			
/opt/5620sam/samdb/tablespace	Database tablespaces	40 minimum	80 minimum
At operator discretion	Customer data (can be partitioned according to customer requirements)	Remainder	Remainder
Disk 3			
/opt/5620sam/dbbackup	Database backups	60	60 minimum
/opt/5620sam/dbbackup/staging	Accounting statistics staging directory (optional)	5	5
At operator discretion	Customer data (can be partitioned according to customer requirements)	Remainder	Remainder
Disk 4			
/opt/5620sam/samdb/archivelog	Database archive logs	30	60

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Partition	Content	Size (Gbytes)	
		73-Gbyte disk	146-Gbyte disk
/opt/5620sam/samdb/tablespace/statstbs01	Accounting statistics tablespace (optional)	10	35
At operator discretion	Customer data (can be partitioned according to customer requirements)	Remainder	Remainder

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Using more than four disks for a database or collocated system

When more than four disks are available for a 5620 SAM database, or for a collocated main server and database, you can reduce disk contention by locating specific database partitions on unused disks. Alcatel-Lucent recommends locating the following partitions on unused disks:

- /opt/5620sam/samdb/redolog
- /opt/5620sam/samdb/tablespace/statstbs01



Caution 1 — If you plan to locate only one partition on an unused disk, this partition must be the redolog partition.

Caution 2 — You must not alter the specified redolog partition size.



Note — The /opt/5620sam partition that contains the 5620 SAM main server software requires an additional 10 Gbytes above the recommended minimum for each 1000 eNodeB devices in the managed network.

One-disk main server partitioning

Table 1-6 lists the recommended partition configuration for a single disk on a Solaris station that hosts the 5620 SAM main server application under typical operating conditions.



Note 1 — Alcatel-Lucent recommends 146-Gbyte hard disks for a 5620 SAM installation. Existing 73-Gbyte disks are sufficient for a 5620 SAM upgrade, but Alcatel-Lucent recommends that you upgrade to 146-Gbyte disks to accommodate system expansion.

Note 2 — Alcatel-Lucent strongly recommends using at least a two-disk layout for a 5620 SAM main server because a single-disk configuration greatly limits the 5620 SAM system performance, managed-network size, and data storage capacity. Alcatel-Lucent discourages the use of a single-disk configuration in a 5620 SAM server deployment.

Note 3 — The /opt/5620sam partition requires an additional 10 Gbytes above the recommended minimum for each 1000 eNodeB devices in the managed network.

Table 1-6 One-disk main server partitioning scheme

Partition	Content	Size (Gbytes)	
		73-Gbyte disk	146-Gbyte disk
/	root, including /usr	10	15
—	swap	8	8
/var	var	7 (3 minimum)	7 (3 minimum)
/opt/5620sam (see Note 3 above table)	5620 SAM main server software	35 (25 minimum)	35 (25 minimum)
/opt/5620sam/server/xml_output	Output of OSSl file-export operations	10	10
At operator discretion	Customer data (can be partitioned according to customer requirements)	Remainder	Remainder

Two-disk main server partitioning

Table 1-7 lists the recommended partition configuration for two disks on a Solaris station that hosts the 5620 SAM main server application under typical operating conditions.



Note 1 — Alcatel-Lucent recommends 146-Gbyte hard disks for a 5620 SAM installation. Existing 73-Gbyte disks are sufficient for a 5620 SAM upgrade, but Alcatel-Lucent recommends that you upgrade to 146-Gbyte disks to accommodate system expansion.

Note 2 — The /opt/5620sam partition requires an additional 10 Gbytes above the recommended minimum for each 1000 eNodeB devices in the managed network.

Table 1-7 Two-disk main server partitioning scheme

Partition	Content	Size (Gbytes)	
		73-Gbyte disk	146-Gbyte disk
Disk 1			
/	root, including /usr	10	15
—	swap	8	8
/var	var	7 (3 minimum)	7 (3 minimum)
Disk 2			
/opt/5620sam (see Note 2 above table)	5620 SAM main server software	35 (25 minimum)	35 (25 minimum)
/opt/5620sam/server/xml_output	Output of OSSI file-export operations	10	10
At operator discretion	Customer data (can be partitioned according to customer requirements)	Remainder	Remainder

One-disk database partitioning

Table 1-8 lists the recommended partition configuration for a single disk on a Solaris station that hosts the 5620 SAM database application. The recommendations apply when only one disk is available for use by the 5620 SAM database, or when two disks are available but one disk is used as a physical mirror of the other disk.



Caution — Alcatel-Lucent does not support the use of a one-disk layout for a 5620 SAM database deployment in a live network. A one-disk layout is supported only for lab trials or for demonstration purposes.



Note — Alcatel-Lucent recommends 146-Gbyte hard disks for a 5620 SAM installation. Existing 73-Gbyte disks are sufficient for a 5620 SAM upgrade, but Alcatel-Lucent recommends that you upgrade to 146-Gbyte disks to accommodate system expansion.

Table 1-8 One-disk database partitioning scheme

Partition	Content	Size (Gbytes)	
		73-Gbyte disk	146-Gbyte disk
/	root, including /usr	10	15
—	swap	4	8
/var	var	3	7 (3 minimum)
/opt/5620sam	5620 SAM database software	5	20
/opt/5620sam/dbbackup	Database backups	12	33
/opt/5620sam/samdb/tablespace	Database tablespaces and redo logs	26	40
/opt/5620sam/samdb/archivelog	Database archive logs	8	16

Two-disk database partitioning

Table 1-9 lists the recommended partition configuration for two disks on a Solaris station that hosts the 5620 SAM database application. The recommendations apply when only two disks are available for use by the 5620 SAM database, or when two pairs of disks are available but one disk pair is used as a physical mirror of the other disk pair.

The recommendations in Table 1-9 apply regardless of the number of available disks on the station. The available disk space on a 5620 SAM database station using two disks typically exceeds the 5620 SAM application requirements. Because the partitioning recommendations do not consume all of the available disk space on a station, the remaining disk space is available for partitioning according to operator discretion.



Note — Alcatel-Lucent recommends 146-Gbyte hard disks for a 5620 SAM installation. Existing 73-Gbyte disks are sufficient for a 5620 SAM upgrade, but Alcatel-Lucent recommends that you upgrade to 146-Gbyte disks to accommodate system expansion.

Table 1-9 Two-disk database partitioning scheme

Partition	Content	Size (Gbytes)	
		73-Gbyte disk	146-Gbyte disk
Disk 1			
/	root, including /usr	10	15
—	swap	4	8
/var	var	7 (3 minimum)	7 (3 minimum)
/opt/5620sam	5620 SAM database software	18 (10 minimum)	41
/opt/5620sam/dbbackup	Database backups	25	60
/opt/5620sam/samdb/redolog	Database redo logs	8	8
At operator discretion	Customer data (can be partitioned according to customer requirements)	Remainder	Remainder
Disk 2			
/opt/5620sam/samdb/archivelog	Database archive logs	15	40
/opt/5620sam/samdb/tablespace	Database tablespaces	40	80
/opt/5620sam/samdb/tablespace/statstbs01 /opt/5620sam/dbbackup/staging	Accounting statistics tablespace (optional)	10	10
	Accounting statistics staging directory (optional)	—	5
At operator discretion	Customer data (can be partitioned according to customer requirements)	Remainder	Remainder

Four-disk database partitioning

Table 1-10 lists the recommended partition configuration for four disks on a Solaris station that hosts the 5620 SAM database application. The recommendations apply when four disks are available for use by the 5620 SAM database, or when two sets of four disks are available but one disk set is used as a physical mirror of the other disk set.

The recommendations in Table 1-10 apply regardless of the number of available disks on the station. The available disk space on a 5620 SAM database station using four disks typically exceeds the 5620 SAM application requirements. Because the partitioning recommendations do not consume all of the available disk space on a station, the remaining disk space is available for partitioning according to operator discretion.



Note — Alcatel-Lucent recommends 146-Gbyte hard disks for a 5620 SAM installation. Existing 73-Gbyte disks are sufficient for a 5620 SAM upgrade, but Alcatel-Lucent recommends that you upgrade to 146-Gbyte disks to accommodate system expansion.

Table 1-10 Four-disk database partitioning scheme

Partition	Content	Size (Gbytes)	
		73-Gbyte disk	146-Gbyte disk
Disk 1			
/	root, including /usr	10	15
—	swap	8	8
/var	var	7 (3 minimum)	7 (3 minimum)
/opt/5620sam	5620 SAM database software	29 (15 minimum)	45
/opt/5620sam/samdb/redolog	Database redo logs	8	8
At operator discretion	Customer data (can be partitioned according to customer requirements)	Remainder	Remainder
Disk 2			
/opt/5620sam/samdb/tablespace	Database tablespaces	40 minimum	80 minimum
At operator discretion	Customer data (can be partitioned according to customer requirements)	Remainder	Remainder
Disk 3			
/opt/5620sam/dbbackup	Database backups	60	60 minimum
/opt/5620sam/dbbackup/staging	Accounting statistics staging directory (optional)	5	5
At operator discretion	Customer data (can be partitioned according to customer requirements)	Remainder	Remainder
Disk 4			

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Partition	Content	Size (Gbytes)	
		73-Gbyte disk	146-Gbyte disk
/opt/5620sam/samdb/archivelog	Database archive logs	30	60
/opt/5620sam/samdb/tablespace/statstbs01	Accounting statistics tablespace (optional)	10	35
At operator discretion	Customer data (can be partitioned according to customer requirements)	Remainder	Remainder

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One-disk statistics-collection auxiliary server partitioning

Table 1-11 lists the recommended partition configuration for a single disk on a Solaris station that hosts the 5620 SAM auxiliary server application for statistics collection under typical operating conditions.



Note 1 — Alcatel-Lucent recommends 146-Gbyte hard disks for a 5620 SAM installation. Existing 73-Gbyte disks are sufficient for a 5620 SAM upgrade, but Alcatel-Lucent recommends that you upgrade to 146-Gbyte disks to accommodate system expansion.

Note 2 — Alcatel-Lucent strongly recommends using at least a two-disk layout for a 5620 SAM auxiliary server because a single-disk configuration greatly limits the 5620 SAM system performance, managed-network size, and data storage capacity. Alcatel-Lucent discourages the use of a single-disk configuration in a 5620 SAM server deployment.

Table 1-11 One-disk auxiliary server partitioning scheme

Partition	Content	Size (Gbytes)	
		73-Gbyte disk	146-Gbyte disk
/	root, including /usr	10	15
—	swap	8	8
/var	var	7 (3 minimum)	7 (3 minimum)
/opt/5620sam	5620 SAM auxiliary server software	35 (25 minimum)	35 (25 minimum)
/opt/5620sam/auxserver/xml_output	Collected statistics	10	10
At operator discretion	Customer data (can be partitioned according to customer requirements)	Remainder	Remainder

Two-disk statistics-collection auxiliary server partitioning

Table 1-12 lists the recommended partition configuration for two disks on a Solaris station that hosts the 5620 SAM auxiliary server application for statistics collection under typical operating conditions.



Note — Alcatel-Lucent recommends 146-Gbyte hard disks for a 5620 SAM installation. Existing 73-Gbyte disks are sufficient for a 5620 SAM upgrade, but Alcatel-Lucent recommends that you upgrade to 146-Gbyte disks to accommodate system expansion.

Table 1-12 Two-disk auxiliary server partitioning scheme

Partition	Content	Size (Gbytes)	
		73-Gbyte disk	146-Gbyte disk
Disk 1			
/	root, including /usr	10	15
—	swap	8	8
/var	var	7 (3 minimum)	7 (3 minimum)
Disk 2			
/opt/5620sam (see Note 2 above table)	5620 SAM auxiliary server software	35 (25 minimum)	35 (25 minimum)
/opt/5620sam/auxserver/xml_output	Collected statistics	10	10
At operator discretion	Customer data (can be partitioned according to customer requirements)	Remainder	Remainder

Four-disk statistics-collection auxiliary server partitioning

Table 1-13 lists the recommended partition configuration for a 5620 SAM auxiliary server that uses four disks and performs statistics collection at a high rate.



Note — The two disks that contain the /opt/5620sam/auxserver/xml_output partition must be in a RAID 0 configuration.

Table 1-13 Four-disk auxiliary server partitioning scheme

Partition	Content	Size (Gbytes)	
		73-Gbyte disk	146-Gbyte disk
Disks 1 and 2			
/	root, including /usr	10	15
—	swap	8	8
/var	var	7 (3 minimum)	7 (3 minimum)
/opt/5620sam	5620 SAM auxiliary server software	35 (25 minimum)	35 (25 minimum)
At operator discretion	Customer data (can be partitioned according to customer requirements)	Remainder	Remainder
Disks 3 and 4 in RAID configuration			
/opt/5620sam/auxserver/xml_output	Collected statistics	All	All

Call-trace auxiliary server partitioning

Table 1-14 lists the recommended partition configuration for a 5620 SAM auxiliary server that performs call-trace functions. A call-trace auxiliary server requires at least four disks.



Note — To accommodate a greater volume of call-trace data, or for increased call-trace performance, you can use extra disks in a RAID configuration with disks 3 and 4. See the *5620 SAM Planning Guide* for information about call-trace storage and throughput requirements.

Table 1-14 Call-trace auxiliary server partitioning scheme

Partition	Content	Size (Gbytes)	
		73-Gbyte disk	146-Gbyte disk
Disks 1 and 2			
/	root, including /usr	10	15
—	swap	8	8
/var	var	7 (3 minimum)	7 (3 minimum)
/opt/5620sam	5620 SAM auxiliary server software	35 (25 minimum)	35 (25 minimum)
At operator discretion	Customer data (can be partitioned according to customer requirements)	Remainder	Remainder
Disk 3			
/opt/5620sam/calltrace	Call-trace output	All	All
Disk 4			
/opt/5620sam/debugtrace	Call-trace debug output	All	All

Client or client delegate server partitioning

Table 1-15 lists the recommended partition configuration for disks on a Solaris station that hosts the 5620 SAM client application.

The recommendations in Table 1-15 apply regardless of the number of available disks on the station because the available disk space on a 5620 SAM client station typically exceeds the 5620 SAM application requirements. Because the partitioning recommendations do not consume all of the available disk space on a station, the remaining disk space is available for partitioning according to operator discretion.

Table 1-15 Client or client delegate server partitioning scheme

Partition	Content	Size (Gbytes)	
		73-Gbyte disk	146-Gbyte disk
/	root, including /usr	10	10
—	swap	4	4
/var	var	7 (3 minimum)	7 (3 minimum)
/opt/5620sam	5620 SAM client software	5	5
At operator discretion	Customer data (can be partitioned according to customer requirements)	Remainder	Remainder

Procedure 1-2 To disable the forcedirectio partition option

Perform this procedure to determine whether the forcedirectio option is enabled on a disk partition, and to disable the option on the partition, if required.



Caution — The Solaris forcedirectio partition option is not required on 5620 SAM disk partitions. Alcatel-Lucent strongly recommends that you disable this option on 5620 SAM disk partitions.

Determine whether forcedirectio option is enabled

- 1 Log in to the Solaris station as a user with root privileges.
- 2 Open a console window.
- 3 Enter the following at the CLI prompt:

```
# mount -v .
```

The output of the command for a single partition entry is similar to the following:

```
/dev/dsk/c0t0d0s5 on /opt/5620sam/samdb/tablespace type ufs
read/write/setuid/intr/forcedirectio/largefiles/onerror=panic/de
v=2200005 on Wed Apr 22 03:14:15 2009
```

- 4 Perform one of the following.
 - a If the entry contains the term `forcedirectio`, as shown in the example, the `forcedirectio` option is enabled on the partition. Go to step 5.
 - b If the `forcedirectio` option is not enabled on any disk partition, go to step 11.

Disable `forcedirectio` option

- 5 Enter the following at the CLI prompt to make a backup copy of the `/etc/vfstab` file:

```
# cp /etc/vfstab /etc/vfstab.backup ↵
```

- 6 Open the `/etc/vfstab` file using a plain-text editor. This file contains an entry for each disk partition. The following is an example of an entry that has the `forcedirectio` option enabled:

```
/dev/dsk/c0t0d0s5      /dev/rdisk/c0t0d0s5
/opt/5620sam/samdb/tablespace ufs      2      yes      forcedirectio
```

- 7 For each 5620 SAM partition that has the `forcedirectio` option enabled, replace the term `forcedirectio` in the partition entry with a dash. The entry now reads as shown in the following example:

```
/dev/dsk/c0t0d0s5      /dev/rdisk/c0t0d0s5
/opt/5620sam/samdb/tablespace ufs      2      yes      -
```

- 8 Save the `/etc/vfstab` file.
- 9 Close the `/etc/vfstab` file.
- 10 Perform the following steps for each partition on which the `forcedirectio` option is newly disabled:

- i Enter the following at the CLI prompt to unmount the partition:

```
# umount partition ↵
```

where *partition* is the partition name, for example, `/opt/5620sam/samdb/tablespace`

- ii Enter the following at the CLI prompt to mount the partition:

```
# mount partition ↵
```

where *partition* is the partition name, for example, `/opt/5620sam/samdb/tablespace`

- 11 Close the console window.
-

Required Solaris packages

If you perform only a core Solaris installation instead of the Entire Distribution + OEM Support installation, you must install specific Solaris packages in addition to the core distribution. If one or more required packages are missing, the installation cannot continue until the packages are installed.

Table 1-16 lists the additional Solaris packages required on a station before a 5620 SAM component installation or upgrade.



Note — A station that hosts a collocated 5620 SAM main server and database requires all of the packages listed in Table 1-16.

Table 1-16 Additional Solaris packages required by 5620 SAM components

Package name	Description
Required on 5620 SAM database station	
SUNWadmfr	System and Network Administration Framework Configuration
SUNWadmfw	System and Network Administration Framework
SUNWarc	Archive Libraries
SUNWbash	GNU Bourne-Again shell (bash)
SUNWbtool	CSS tools bundled with SunOS
SUNWctpls	Portable Layout services for Complex Test
SUNWeurf	European codeset fonts
SUNWgzip	The GNU Zip (gzip) compression utility
SUNWhea	SunOS Header Files
SUNWi15cs	X11 ISO8859-15 Codeset Support
SUNWi1cs	X11 ISO8859-1 Codeset Support
SUNWi1of	ISO-8859-1 (Latin-1) Optional Fonts
SUNWi15rf	X11 fonts for ISO8859-15 character set (required fonts)
SUNWj5rt	JDK 5.0 Runtime Env. (1.5.0_07)
SUNWlibm	Forte Developer Bundled libm
SUNWlibmr	Math Library Lint Files (Root)
SUNWlibms	Math Library Lint Files (Usr)
SUNWmfrun	Motif Run Time Kit
SUNWntpr	NTP (/)
SUNWntpu	NTP (/usr)
SUNWpool	Resource Pools
SUNWpoolr	Resource Pools (Root)
SUNWsshcu	SSH Common (Usr)
SUNWsshdr	SSH Server (Root)
SUNWsshdu	SSH Server (Usr)
SUNWsshr	SSH Client and utilities (Root)
SUNWsshu	SSH Client and utilities (Usr)
SUNWsprot	Solaris Bundled tools
SUNWtoo	Truss and other troubleshooting tools

(1 of 2)

Package name	Description
SUNWuiu8	Iconv modules for UTF-8 Locale
SUNWxcu4	XCU4 Utilities
SUNWxcu4t	XCU4 make and sccs utilities
SUNWxwftnt	X Window System platform required fonts
SUNWxwice	X Window System Inter-Client Exchange (ICE)
SUNWxwopt	X Window System Optional Clients
SUNWxwplr	X Window System platform software configuration
SUNWxwplt	X Window System platform software
SUNWxwrtl	X Window System & Graphics Runtime Library
Required on 5620 SAM server, standalone client, or client delegate station	
SUNWadmfr	System and Network Administration Framework Configuration
SUNWadmfw	System and Network Administration Framework
SUNWbash	GNU Bourne-Again shell (bash)
SUNWctpls	Portable Layout services for Complex Test
SUNWgzip	The GNU Zip (gzip) compression utility
SUNWmfrun	Motif RunTime Kit
SUNWntpr	NTP (/)
SUNWntpu	NTP (/usr)
SUNWscpr	utilities for user interface and source build compatibility with SunOS 4.x
SUNWscpu	utilities for user interface and source build compatibility with SunOS 4.x
SUNWsshcu	SSH Common (Usr)
SUNWsshdr	SSH Server (Root)
SUNWsshdu	SSH Server (Usr)
SUNWsshr	SSH Client and utilities (Root)
SUNWsshu	SSH Client and utilities (Usr)
SUNWuiu8	Iconv modules for UTF-8 Locale
SUNWxcu4	XCU4 Utilities
SUNWxwftnt	X Windows System platform required fonts
SUNWxwice	X Windows System Inter-Client Exchange (ICE)
SUNWxwopt	X Window System Optional Clients
SUNWxwplr	X Window System platform software configuration
SUNWxwplt	X Windows System platform software
SUNWxwrtl	X Windows System & Graphics Runtime Library

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5620 SAM for Windows

2 — 5620 SAM installation, upgrade, and uninstallation on Windows

2 — 5620 SAM installation, upgrade, and uninstallation on Windows

- 2.1 5620 SAM installation, upgrade, and uninstallation on Windows
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2.1 5620 SAM installation, upgrade, and uninstallation on Windows overview

This chapter describes how to perform an installation, upgrade, or uninstallation of a 5620 SAM network management system on a Windows platform. The following components comprise a 5620 SAM system on Windows:

- one main server
- one database
- one or more clients

Before you attempt to perform a procedure in this chapter, ensure that you understand and comply with the relevant requirements, considerations, and precautions described in chapter 1 of this document.



Caution — Alcatel-Lucent supports 5620 SAM software configuration only under the conditions described in chapter 1.

2.2 5620 SAM installation, upgrade, and uninstallation on Windows procedures list

Table 2-1 lists the procedures required to perform 5620 SAM software installation, upgrade, and uninstallation activities on a Windows platform.

Table 2-1 5620 SAM installation, upgrade, and uninstallation on Windows procedures list

Procedure	Purpose
To install a 5620 SAM database on Windows	Install the 5620 SAM database software on a Windows station.
To install a 5620 SAM main server on Windows	Install the 5620 SAM main server software on a Windows station.
To install a 5620 SAM single-user client on Windows using a web browser	Install the 5620 SAM client software on a Windows station using a web browser.
To install a 5620 SAM single-user client on Windows using the software DVD-ROM	Install the 5620 SAM client software on a Windows station from the 5620 SAM software DVD-ROM.
To add a client delegate server to an existing 5620 SAM system on Windows	Add a new 5620 SAM client delegate server to an existing 5620 SAM system installed on Windows.
To perform the pre-upgrade tasks	Prepare a 5620 SAM system on Windows for a software upgrade by ensuring the correct conditions are in place, backing up the database and configuration files, and gathering the required system information.
To upgrade a 5620 SAM database on Windows	Upgrade the 5620 SAM database software on a Windows station.
To upgrade a 5620 SAM main server on Windows	Upgrade the 5620 SAM main server software on a Windows station.

(1 of 2)

Procedure	Purpose
To upgrade a 5620 SAM single-user client on Windows	Upgrade the 5620 SAM client software on a Windows station.
To uninstall the 5620 SAM single-user client software on Windows using a web browser	Remove the 5620 SAM client software from a Windows station using a web browser.
To uninstall the 5620 SAM single-user client software on Windows using Add/Remove Programs	Remove the 5620 SAM client software from a Windows station using the Add/Remove Programs applet.
To uninstall the 5620 SAM main server software on Windows	Remove the 5620 SAM main server software from a Windows station.
To uninstall the 5620 SAM database software on Windows	Remove the 5620 SAM database software from a Windows station.

(2 of 2)

2.3 Workflow for 5620 SAM installation on Windows

The following is the sequence of high-level actions required to install a 5620 SAM system on a Windows platform.

- 1 Install the database. See Procedure [2-1](#) for more information.
- 2 Install the main server. See Procedure [2-2](#) for more information.
- 3 Install a client.
 - a Perform Procedure [2-3](#) or [2-4](#) to install a single-user client on a Windows station.
 - b Perform Procedure [3-2](#) or [3-3](#) to install a single-user client on a Solaris station.
 - c Perform Procedure [3-4](#) to install a client delegate server.

2.4 5620 SAM installation on Windows procedures

This section describes how to install the software components of a 5620 SAM system on Windows.

Procedure [2-1](#) describes how to install the 5620 SAM database software.

Procedure [2-2](#) describes how to install the 5620 SAM main server software.

Procedures [2-3](#) and [2-4](#) describe how to install the 5620 SAM client software.

Procedure 2-1 To install a 5620 SAM database on Windows

Perform this procedure to install the 5620 SAM database software on a Windows station. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



Note — You require local administrator user privileges to install a 5620 SAM database on Windows.

- 1 Perform the following steps to determine whether the Microsoft Windows KB951312 hotfix is installed on the database station.

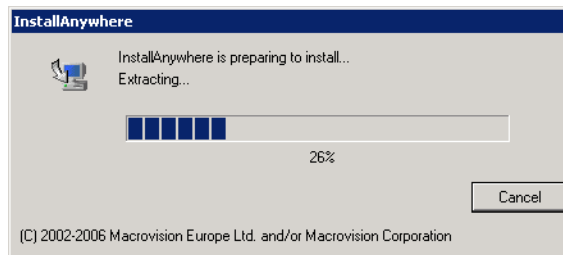


Note — A 5620 SAM database installation fails if the hotfix is not installed.

- i Click on Start→Settings→Control Panel. The Control Panel window opens.
 - ii Double-click on Add or Remove Programs. The Add or Remove Programs window opens.
 - iii Select the Show update check box below the title bar to display the updates that are installed on the PC.
 - iv Scroll through the list to find a “Hotfix for Windows XP(KB951312)” entry.
- 2 If the entry is listed, go to step 4.
- 3 Perform the following steps to install the hotfix.
 - i Follow the instructions at the following URL to download the hotfix file:
<http://support.microsoft.com/kb/951312/en-us>
 - ii Double-click on the downloaded hotfix file. The hotfix installer opens.
 - iii Follow the instructions that the installer displays.
- 4 Close the Add or Remove Programs window.
- 5 Close the Control Panel window.
- 6 Navigate to the Windows directory on the 5620 SAM software DVD-ROM.
- 7 Double-click on the DBConfig_SAM_8_0_*revision*.exe file
where *revision* is the revision identifier, such as R1, R3, or another descriptor

The installer prepares by extracting files, as shown in Figure 2-1.

Figure 2-1 Installer preparation



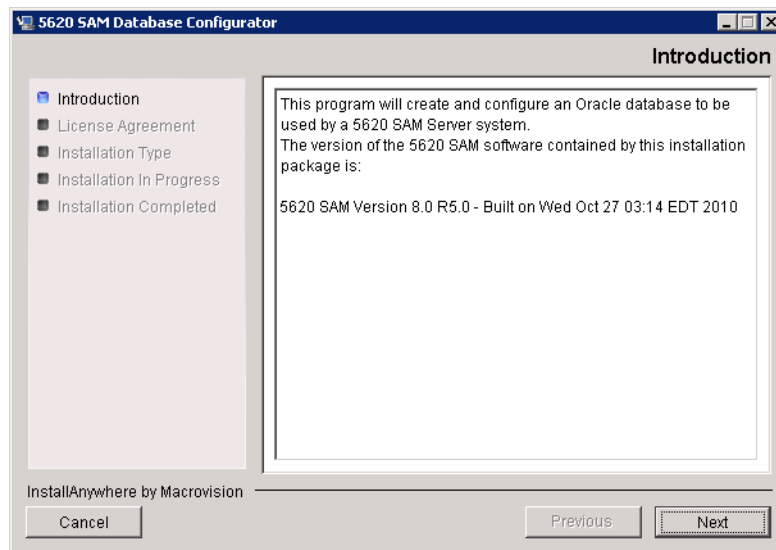
When the counter reaches 100%, the splash screen shown in Figure 2-2 opens.

Figure 2-2 5620 SAM installer



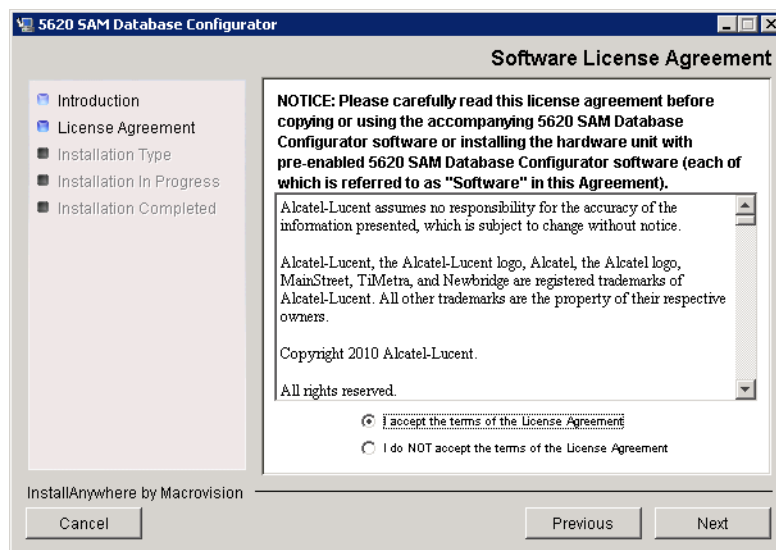
- 8 The 5620 SAM database installer opens, as shown in Figure 2-3. The left pane indicates installation progress. The right pane displays release information about the software. Click on the Next button.

Figure 2-3 Introduction



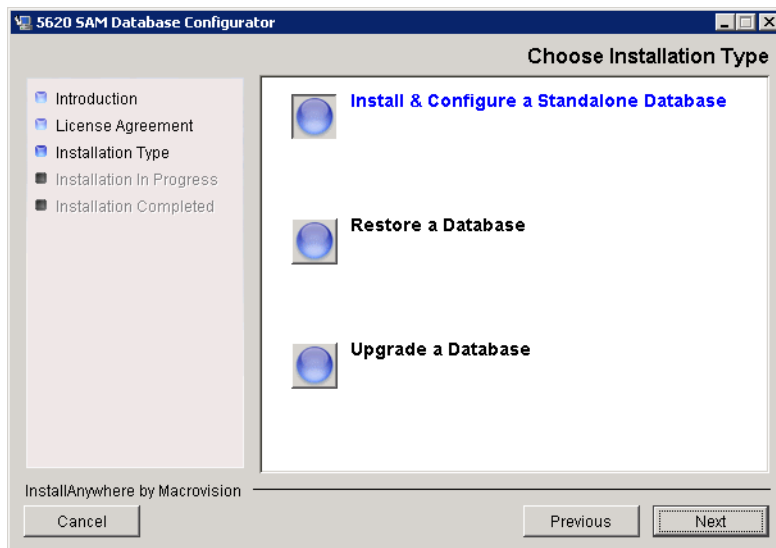
- 9 Review and accept the terms of the license agreement shown in Figure 2-4. Click on the Next button.

Figure 2-4 Software License Agreement



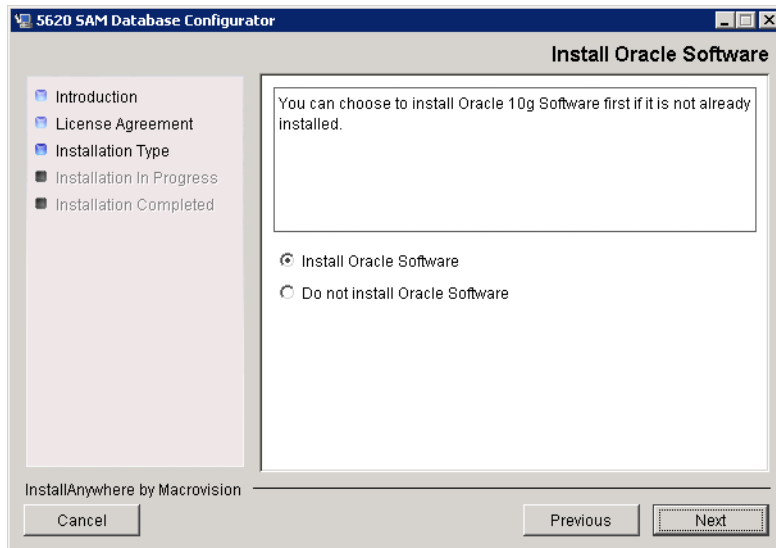
- 10 Select **Install and Configure a Standalone Database**, as shown in Figure 2-5. Click on the **Next** button.

Figure 2-5 Choose Installation Type



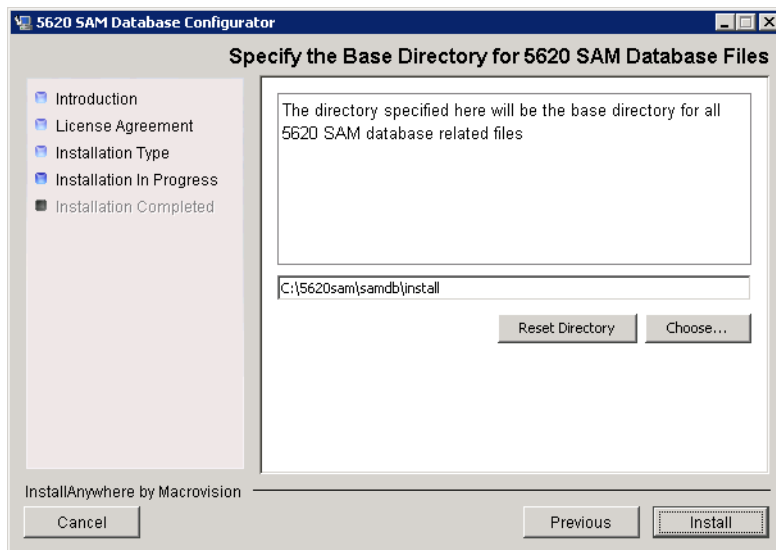
- 11 Select **Install Oracle Software**, as shown in Figure 2-6. Click on the **Next** button.

Figure 2-6 Install Oracle Software



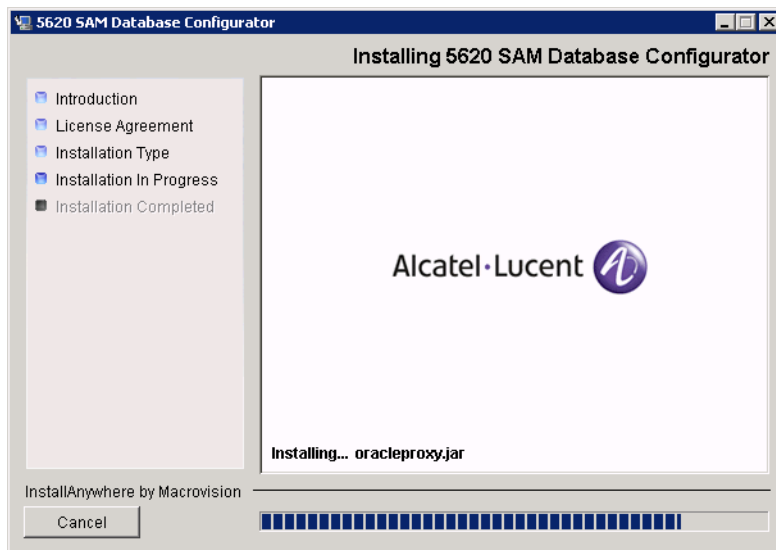
- 12 Specify a base directory in which to install the 5620 SAM database software (typically C:\5620sam\samdb\install), as shown in Figure 2-7. Click on the Install button to begin the database software installation.

Figure 2-7 Specify the Base Directory for 5620 SAM Database Files



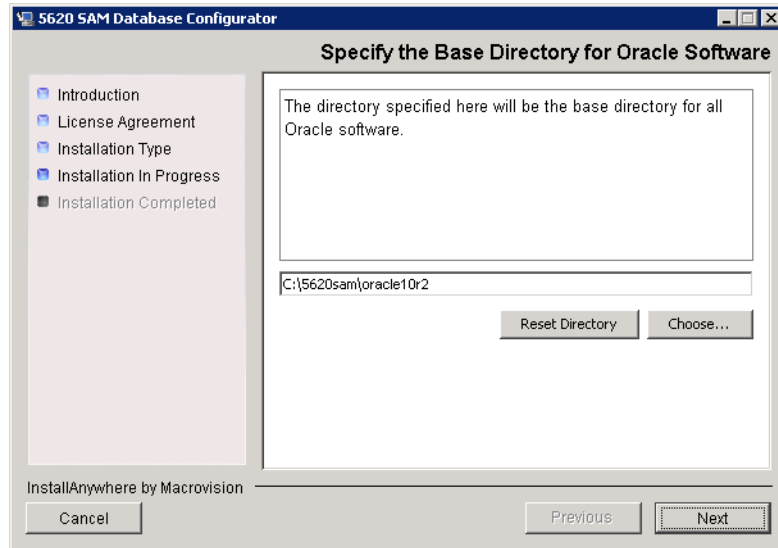
The installer prepares to install the database, as shown in Figure 2-8.

Figure 2-8 Installing 5620 SAM Database Configurator



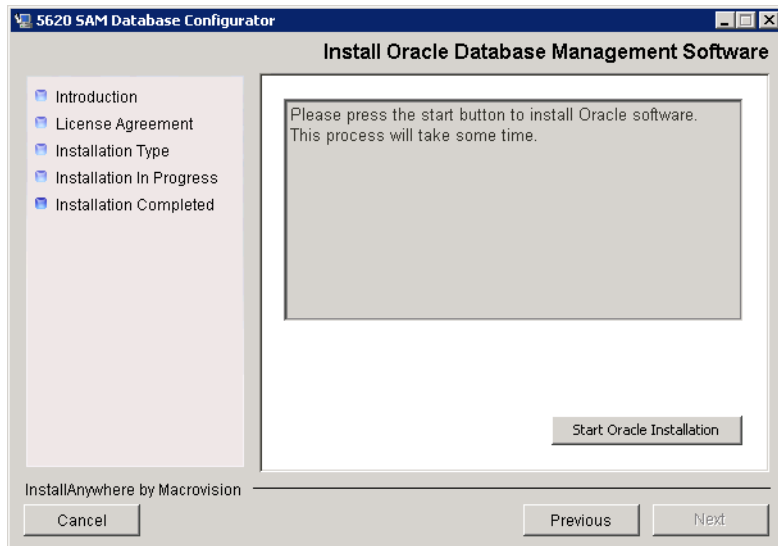
- 13 Specify a base directory in which to install the Oracle software (typically C:\5620sam\oracle10r2), as shown in Figure 2-9. The directory must be empty if it exists. Click on the Next button.

Figure 2-9 Specify the Base Directory for Oracle Software



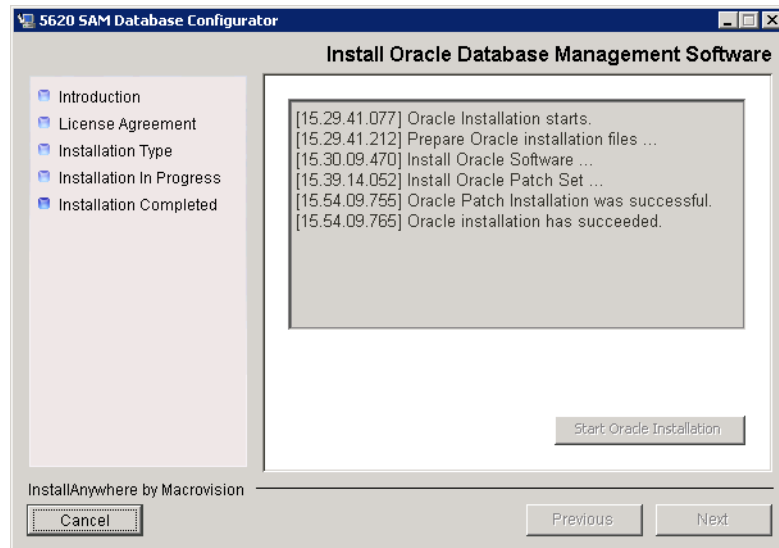
- 14 You are prompted to install Oracle software, as shown in Figure 2-10. This operation can take one hour or more. Click on the Start Oracle Installation button to begin the Oracle software installation.

Figure 2-10 Install Oracle Database Management Software



- 15 As shown in Figure 2-11, Oracle installation details are displayed as the installation progresses. When the installation is complete, click on the Next button.

Figure 2-11 Install Oracle Database Management Software



16 Configure the following parameters shown in Figure 2-12, then click on the Next button:

- NAT (network address translation) Used
- Public IP (accessible to server)
- Private IP
- Database Name (typically samdb)
- Instance Name (typically samdb)
- User Name (typically samuser)
- User Password



Note — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected.

Figure 2-12 General Database Configuration Info

The screenshot shows the '5620 SAM Database Configurator' window. On the left is a navigation pane with the following items: Introduction, License Agreement, Installation Type, Installation In Progress, and Installation Completed. The 'General Database Configuration Info' tab is selected. The main area contains instructions: 'Enter the network interface information that the database requires to communicate with the servers. If NAT (network address translation) is to be used, specify the database's private IP address.' Below this is a checkbox for 'NAT (network address translation) Used'. The 'Public IP (accessible to server)' dropdown menu is set to '192.168.200.133'. The following fields are filled: 'Database Name' is 'samdb', 'Instance Name' is 'samdb', 'User Name' is 'samuser', 'User Password' is masked with asterisks, and 'Confirm User Password' is also masked with asterisks. At the bottom left, it says 'InstallAnywhere by Macrovision' with a 'Cancel' button. At the bottom right, there are 'Previous' and 'Next' buttons.

- 17 Configure the following parameters shown in Figure 2-13, then click on the Next button:
- Database Listener Port (typically 1523)
 - Database Proxy Port (typically 9002)

Figure 2-13 General Database Configuration Info (cont.)

5620 SAM Database Configurator

General Database Configuration Info (cont.)

Database Listener Port: 1523

Database Proxy Port: 9002

InstallAnywhere by Macrovision

Cancel Previous Next

- 18 Enter and confirm the Oracle SYS password, as shown in Figure 2-14, then click on the Next button.

Figure 2-14 Oracle SYS Password

5620 SAM Database Configurator

Oracle SYS Password

IMPORTANT: the password needs to be known to the 5620 SAM administrator for future reference.

SYS Password: *****

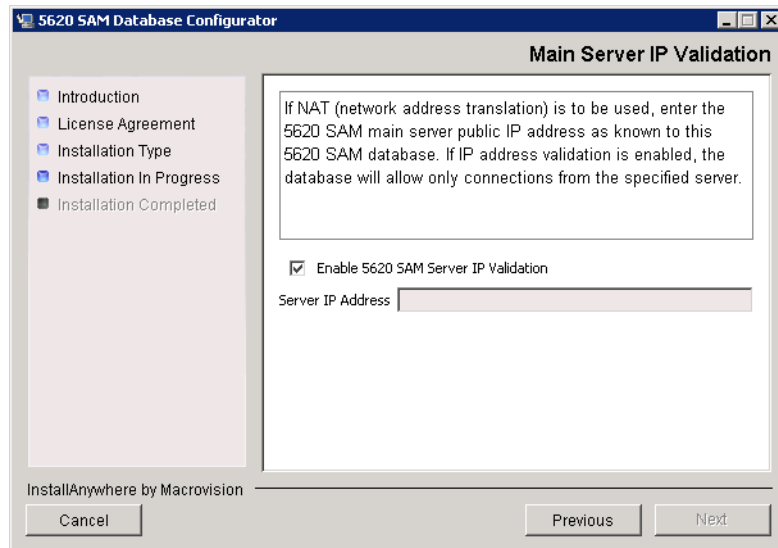
Confirm SYS Password: *****

InstallAnywhere by Macrovision

Cancel Previous Next

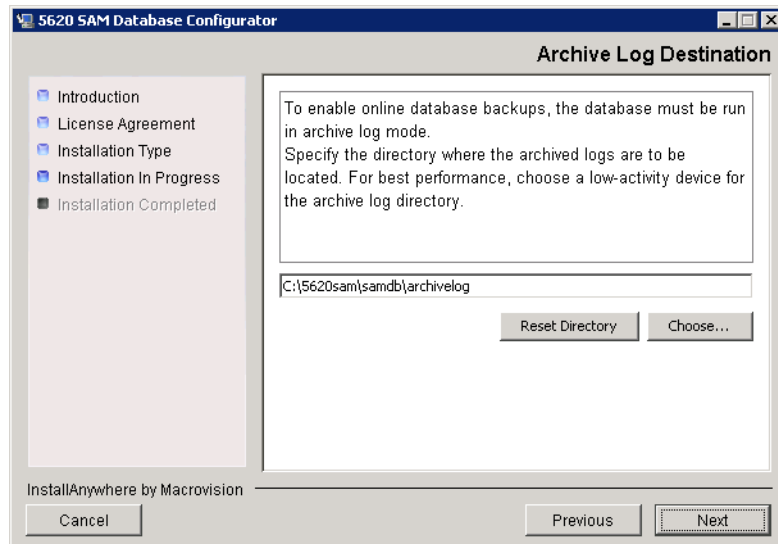
- 19 If the “Enable 5620 SAM Server IP Validation” parameter is selected, as shown in Figure 2-15, only the main server at the specified IP address can connect to the database. If required, select this parameter and enter the IP address of the 5620 SAM main server. Click on the Next button.

Figure 2-15 Main Server IP Validation



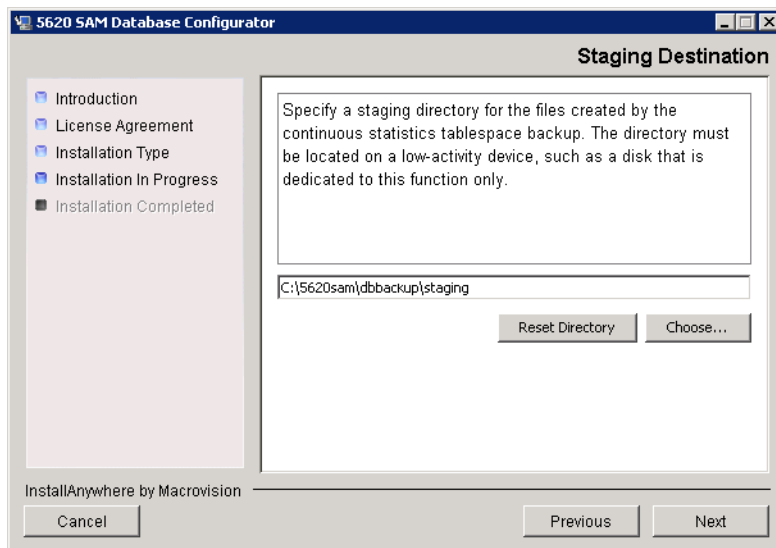
- 20 Specify a directory as the archive log destination (typically C:\5620sam\samdb\archivelog), as shown in Figure 2-16. Click on the Next button.

Figure 2-16 Archive Log Destination



- 21 Specify a directory for the continuous statistics tablespace backup, as shown in Figure 2-17. Click on the Next button.

Figure 2-17 Staging Destination

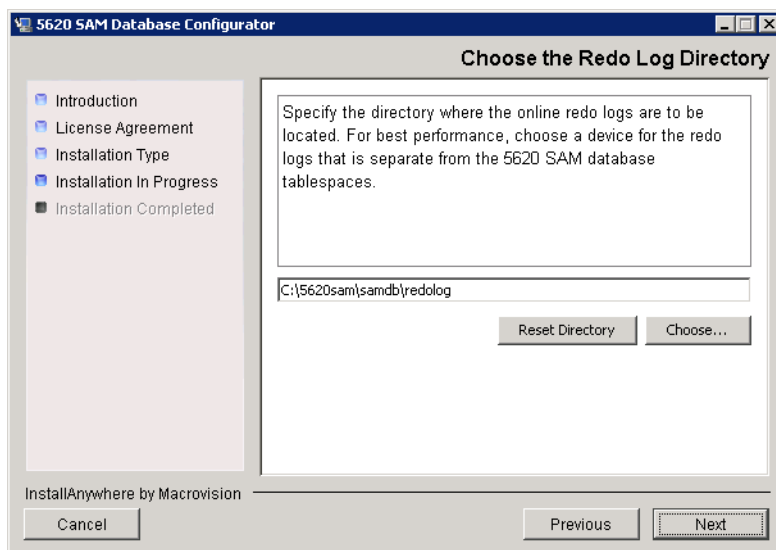


- 22 Specify a directory for the Redo logs (typically C:\5620sam\samdb\redolog), as shown in Figure 2-18. Click on the Next button.



Note — In a one-disk configuration, the redo log directory must be the same directory that you specify as the tablespace directory later in the procedure.

Figure 2-18 Choose the Redo Log Directory



- 23 Configure the “Accounting Statistics Database Retention Period” parameter shown in Figure 2-19. Click on the Next button.

Figure 2-19 Accounting Statistics Database Retention Period

The screenshot shows the "5620 SAM Database Configurator" window. On the left is a navigation pane with a tree view containing: Introduction, License Agreement, Installation Type, Installation In Progress, and Installation Completed. The main area is titled "Accounting Statistics Database Retention Period". It contains a text box with the instruction: "Enter the accounting statistics retention period (in days). The retention period is the maximum number of days that records are kept in the database. Using a longer retention period will require more disk space." Below this is a text input field labeled "Accounting Statistic Data Retention Period" with the value "1" entered. At the bottom are "Cancel", "Previous", and "Next" buttons. The footer text reads "InstallAnywhere by Macrovision".

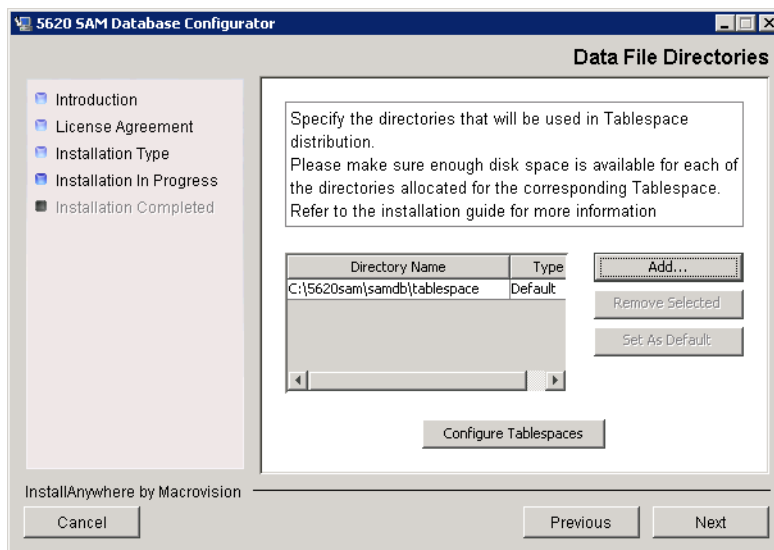
- 24 Choose one of the data layout options shown in Figure 2-20. Click on the Next button. Contact Alcatel-Lucent technical support for information about data layout options.

Figure 2-20 Data Layout Option

The screenshot shows the "5620 SAM Database Configurator" window. On the left is a navigation pane with a tree view containing: Introduction, License Agreement, Installation Type, Installation In Progress, and Installation Completed. The main area is titled "Data Layout Option". It contains a text box with the instruction: "Please specify a layout option for the database tables. To meet the performance requirements of a large network, you must use multiple tablespaces." Below this are two radio button options: "Multiple Tablespace mapping of Stats and Alarm tablespaces" (which is selected) and "Multiple Tablespace mapping of all tablespaces". At the bottom are "Cancel", "Previous", and "Next" buttons. The footer text reads "InstallAnywhere by Macrovision".

- 25 Specify the tablespace directories.
 - i Click on the Add button shown in Figure 2-21. A file browser form opens.
 - ii Use the file browser form to choose a tablespace directory.
 - iii Repeat steps 25 i and ii to specify an additional tablespace directory, if required.

Figure 2-21 Data File Directories



26 Associate tablespaces with the directories specified in step 25.

- i Click on the Configure Tablespaces button. The tablespace configuration form opens, as shown in Figure 2-22.



Note — The lists of drives and tablespaces on the tablespace configuration form may differ from the lists shown in the figure below.

- ii Follow the instructions at the top of the form to associate tablespaces with directories, as required.
- iii Click on the OK button. The tablespace configuration form closes and the Data File Directories panel in Figure 2-21 reappears.

Figure 2-22 Configure Tablespaces

Select one drive and one or more Tablespaces from the left side. Add those associations to the right side using the 'Add associations from the left' button.
You can select at the same time on both TS tables at the left: Oracle Tablespaces and 5620 SAM Tablespaces

Directory Name	Type
C:\5620sam\samdb\tablspace	Default

Oracle Tablespaces

Tablespace Name
INDX
SYSALX
SYSTEM
TEMP
UNDOTBS1

5620 SAM Tablespaces

Tablespace Name
ALARMS
ALARM_HISTORY
CURRENT_DATA_STRUCT_1
CURRENT_DATA_STRUCT_2
CURRENT_DATA_STRUCT_3
CURRENT_DATA_STRUCT_4
SAM_RELATIONS_1
SAM_RELATIONS_2

Name	Drive
ALARMS	C:\5620sam\samdb\tablspace
ALARM_HISTORY	C:\5620sam\samdb\tablspace
CURRENT_DATA_STRUCT_1	C:\5620sam\samdb\tablspace
CURRENT_DATA_STRUCT_2	C:\5620sam\samdb\tablspace
CURRENT_DATA_STRUCT_3	C:\5620sam\samdb\tablspace
CURRENT_DATA_STRUCT_4	C:\5620sam\samdb\tablspace
INDX	C:\5620sam\samdb\tablspace
SAM_RELATIONS_1	C:\5620sam\samdb\tablspace
SAM_RELATIONS_2	C:\5620sam\samdb\tablspace
SAM_SYSTEM_1	C:\5620sam\samdb\tablspace
SAM_SYSTEM_2	C:\5620sam\samdb\tablspace
SAM_SYSTEM_3	C:\5620sam\samdb\tablspace
SAM_SYSTEM_4	C:\5620sam\samdb\tablspace
STATS_CURRENT	C:\5620sam\samdb\tablspace
STATS_HISTORY	C:\5620sam\samdb\tablspace
STATS_POLICY	C:\5620sam\samdb\tablspace
SYSALX	C:\5620sam\samdb\tablspace
SYSTEM	C:\5620sam\samdb\tablspace
TEMP	C:\5620sam\samdb\tablspace
TIMS_SYSTEM	C:\5620sam\samdb\tablspace
TIMS_SYS_INDX	C:\5620sam\samdb\tablspace
UNDOTBS1	C:\5620sam\samdb\tablspace
USERS	C:\5620sam\samdb\tablspace

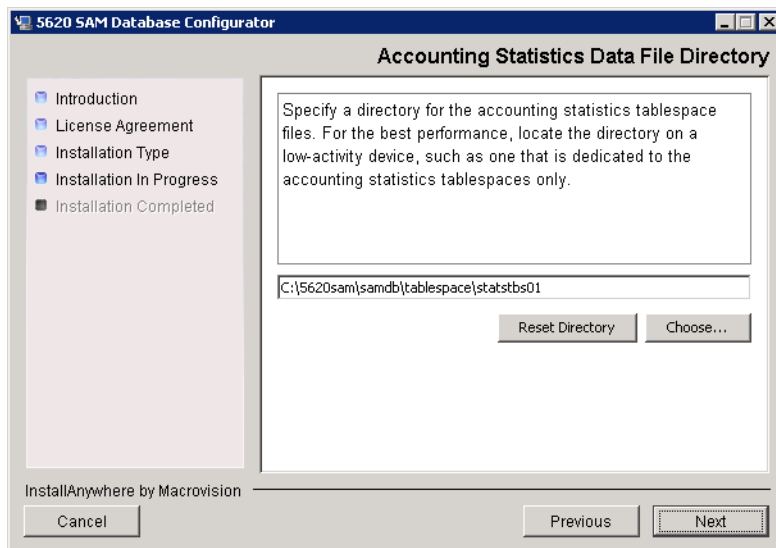
Add associations from the left
Remove Selected Associations
Set Default Associations
Select All

OK Cancel

- 27 Click on the Next button.

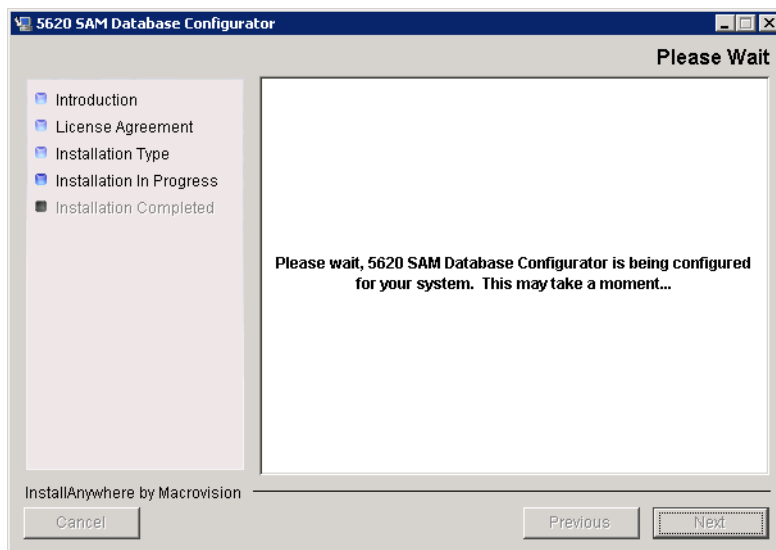
- 28 Specify a directory for the accounting statistics tablespace files, as shown in Figure 2-23. Click on the Next button.

Figure 2-23 Accounting Statistics Data File Directory



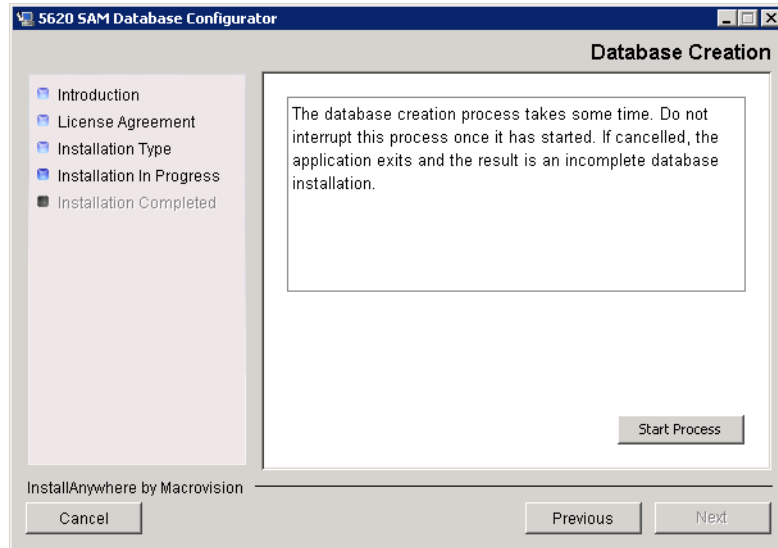
As shown in Figure 2-24, the installer prepares to install the database software.

Figure 2-24 Please Wait



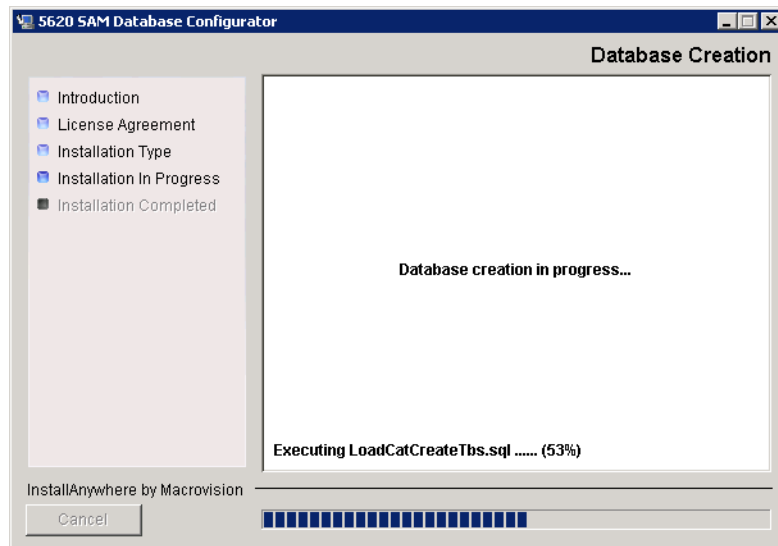
- 29 You are prompted to begin database creation, as shown in Figure 2-25. Database creation can take one hour or more, depending on the tablespace configuration. Click on the Start Process button to begin database creation.

Figure 2-25 Database Creation



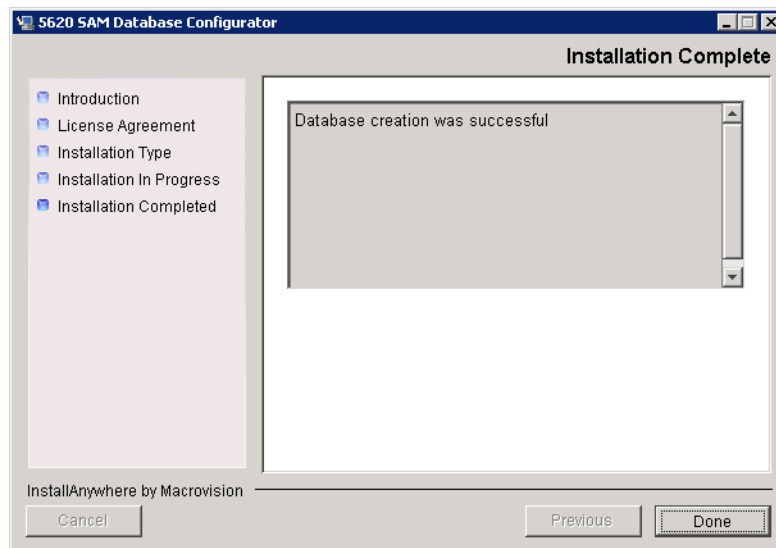
The next panel displays database creation progress, as shown in Figure 2-26.

Figure 2-26 Database Creation



- 30 When database installation is complete, as shown in Figure 2-27, click on the Done button to close the database installer.

Figure 2-27 Installation Complete



- 31 Reboot the 5620 SAM database station.

The 5620 SAM database starts automatically during Windows initialization.

Procedure 2-2 To install a 5620 SAM main server on Windows

Perform this procedure to install the 5620 SAM main server software on a Windows station. The 5620 SAM main server software must be installed on a station other than the one on which the 5620 SAM database software is installed. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.

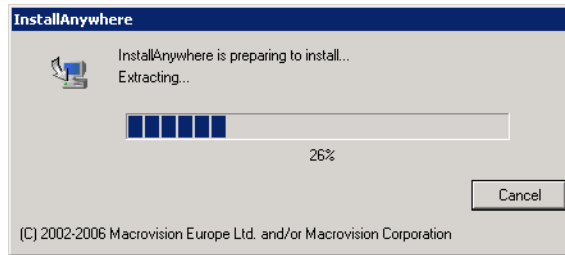


Note — You require local administrator user privileges to install a 5620 SAM main server on Windows.

- 1 Navigate to the Windows directory on the 5620 SAM software DVD-ROM.
- 2 Double-click on the `ServerInstall_SAM_8_0_revision.exe` file
where *revision* is the revision identifier, such as R1, R3, or another descriptor

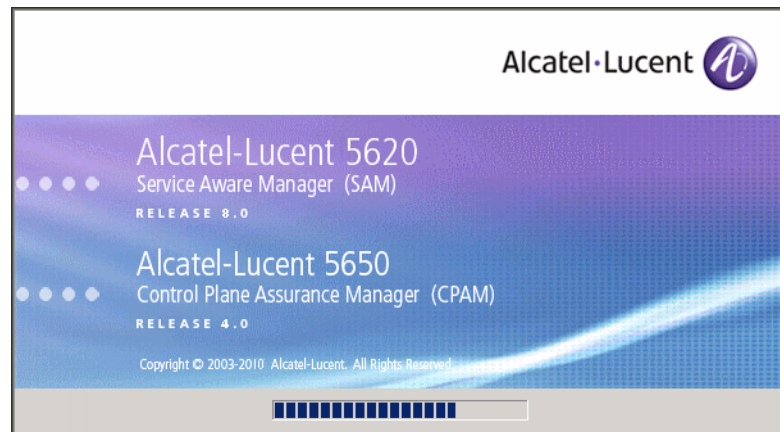
The installer prepares by extracting files, as shown in Figure 2-28.

Figure 2-28 Installer preparation



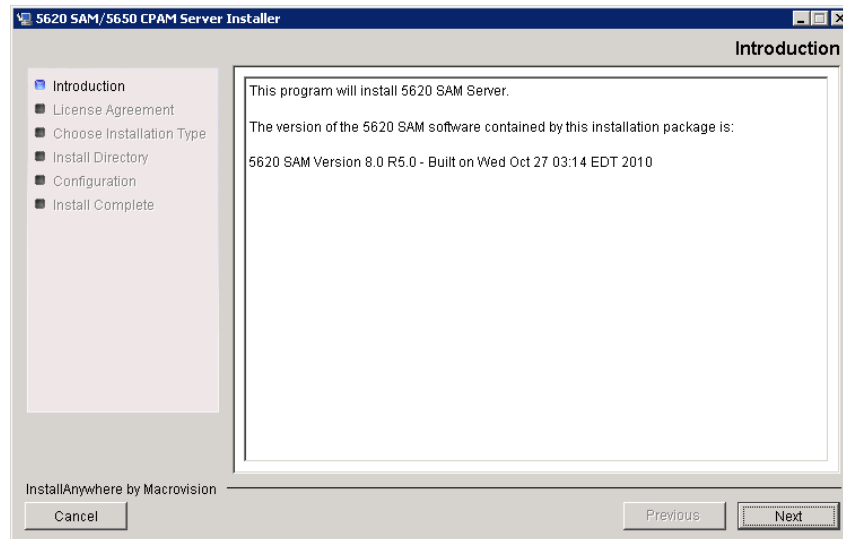
When the counter reaches 100%, the splash screen shown in Figure 2-29 opens.

Figure 2-29 5620 SAM installer



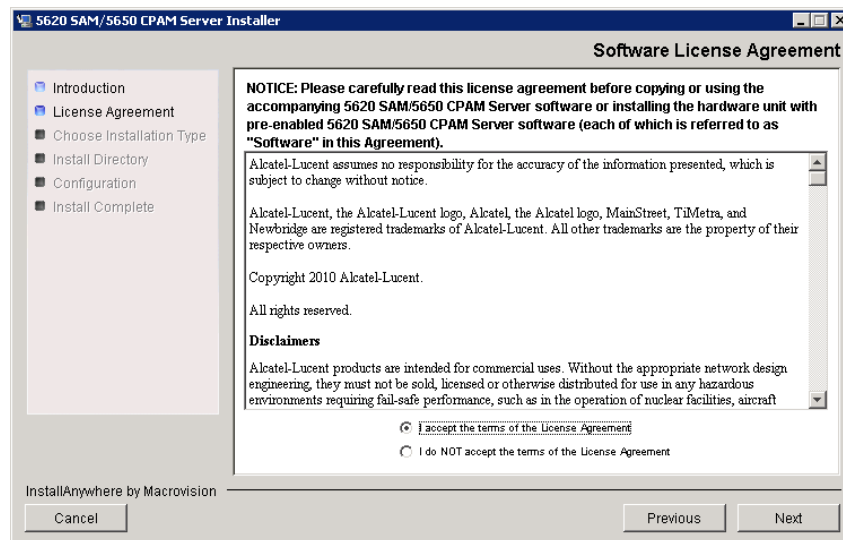
- 3 The 5620 SAM main server installer opens, as shown in Figure 2-30. The left pane indicates installation progress. The right pane displays release information about the software. Click on the Next button.

Figure 2-30 Introduction



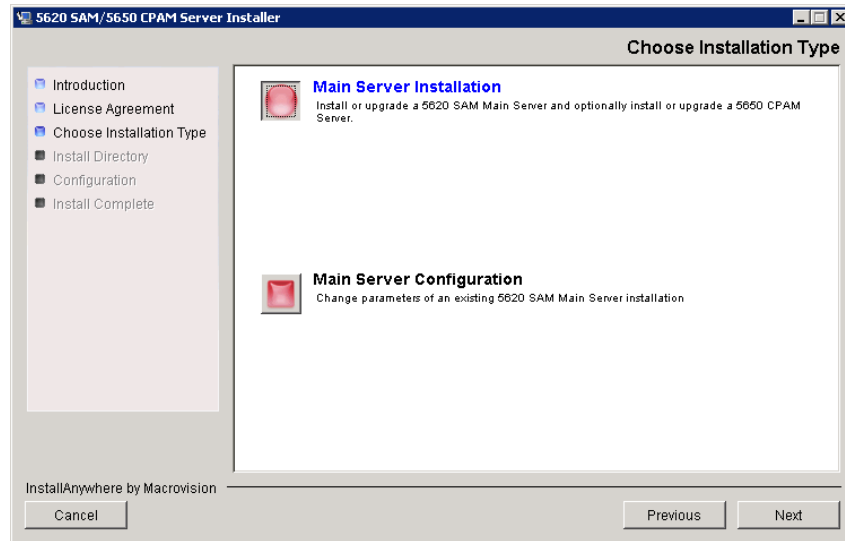
- 4 Review and accept the terms of the license agreement shown in Figure 2-31. Click on the Next button.

Figure 2-31 Software License Agreement



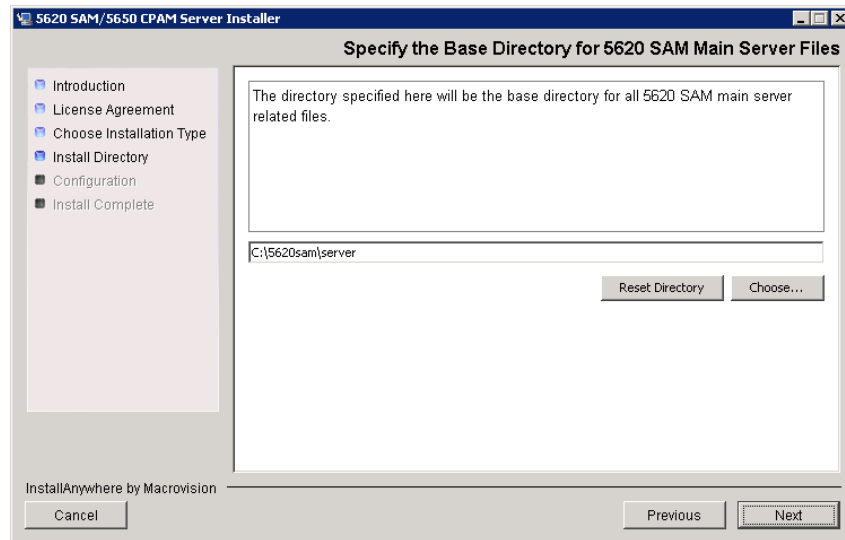
- 5 Select Main Server Installation, as shown in Figure 2-32. Click on the Next button.

Figure 2-32 Choose Installation Type



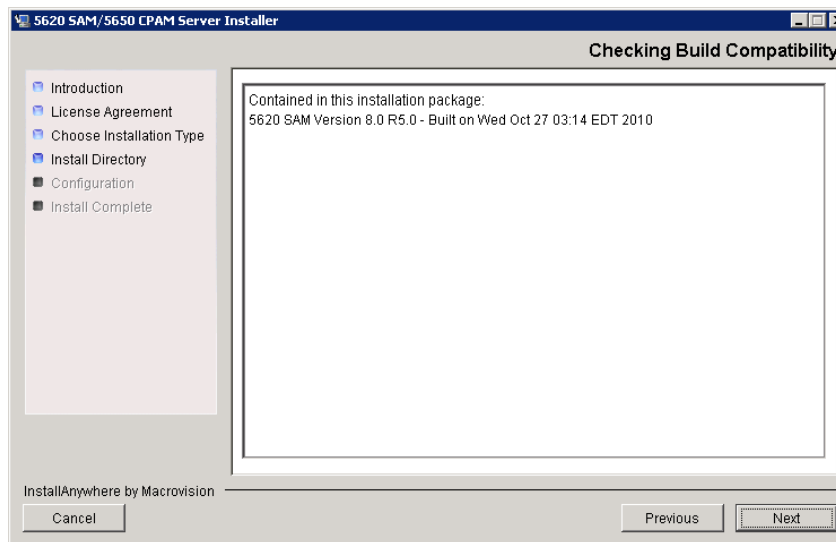
- 6 Specify a base directory in which to install the 5620 SAM main server software (typically C:\5620sam\server), as shown in Figure 2-33. Click on the Next button.

Figure 2-33 Specify the Base Directory for 5620 SAM Main Server Files



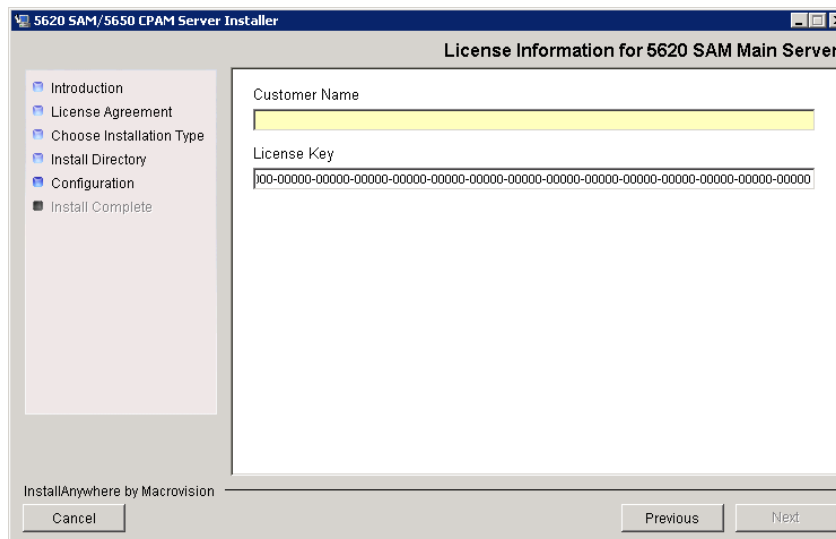
- 7 As shown in Figure 2-34, the installer indicates which release of 5620 SAM software is to be installed. Verify the information. Click on the Next button.

Figure 2-34 Checking Build Compatibility



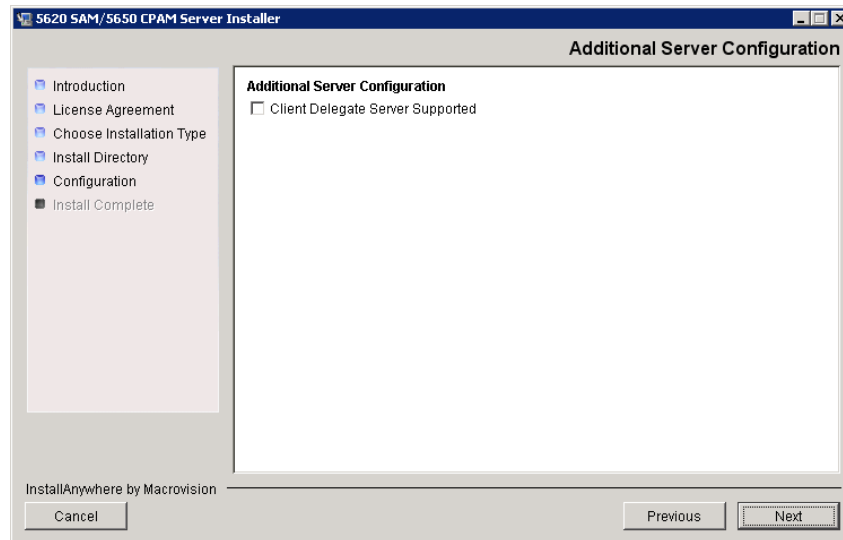
- 8 Enter the License Key information exactly as received from Alcatel-Lucent. Include the dashes in the key, as shown in Figure 2-35. Click on the Next button.

Figure 2-35 License Information for 5620 SAM Main Server



- 9 Configure the Client Delegate Server Supported parameter shown in Figure 2-36, then click on the Next button.

Figure 2-36 Additional Server Configuration



10 Configure the following parameters, shown in Figure 2-37, using the recorded values from the database installation, then click on the Next button.

- Database Server IP Address
- Database Server Port (typically 1523)
- Database Instance Name (typically samdb)
- Database User Name (typically samuser)
- Database User Password
- Database Proxy Port (typically 9002)



Note — The Database Server Port value is the Database Listener Port value specified during database installation in step 17 of Procedure 2-1.

Figure 2-37 Database Configuration

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window with the 'Database Configuration' tab selected. On the left is a navigation pane with the following items: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (highlighted), and Install Complete. The main area contains a text box with the instruction: 'If NAT (network address translation) is to be used, enter the 5620 SAM database's public IP address as known to the 5620 SAM server.' Below this are six input fields: 'Database Server IP Address' (highlighted in yellow), 'Database Server Port' (1523), 'Database Instance Name' (samdb), 'Database User Name' (samuser), 'Database User Password' (masked with asterisks), and 'Database Proxy Port' (9002). At the bottom, there is a 'Cancel' button, and 'Previous' and 'Next' buttons on the right. The footer text reads 'InstallAnywhere by Macrovision'.

11 Configure the following parameters shown in Figure 2-38, then click on the Next button:

- Online Database Backup Interval (Hours) (typically 24)
- Online Backup Destination (typically C:\5620sam\dbbackup)
- Number Of Backup Sets (typically 3)



Note — The Online Backup Destination is a path on the file system of the database station specified in step 10.

Figure 2-38 Online Database Backup

5620 SAM/5650 CPAM Server Installer

Online Database Backup

Introduction
License Agreement
Choose Installation Type
Install Directory
Configuration
Install Complete

The database backup directory resides on the database workstation.
Please ensure that the specified directory exists on the database workstation and it is writable.

Online Backup Interval (Hours) 24

Online Backup Destination C:\5620sam\dbbackup

Number Of Backup Sets 3

InstallAnywhere by Macrovision

Cancel Previous Next

12 Configure the following parameters shown in Figure 2-39, then click on the Next button.

- Server Domain Name (typically 5620sam)
This is an identifier that uniquely identifies the 5620 SAM servers in a 5620 SAM cluster
- NAT (network address translation) Used
- Private IP (accessible only by this main server)
- Public IP (accessible to clients)
- EJB JNDI Server port (typically 1099)
- EJB JMS Server port (typically 8093)
- Enable 5670 RAM



Note — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 2-39.

Figure 2-39 Main Server Configuration for Clients

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window with the 'Main Server Configuration for Clients' tab selected. The left sidebar contains a list of steps: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (highlighted), and Install Complete. The main area contains the following configuration fields:

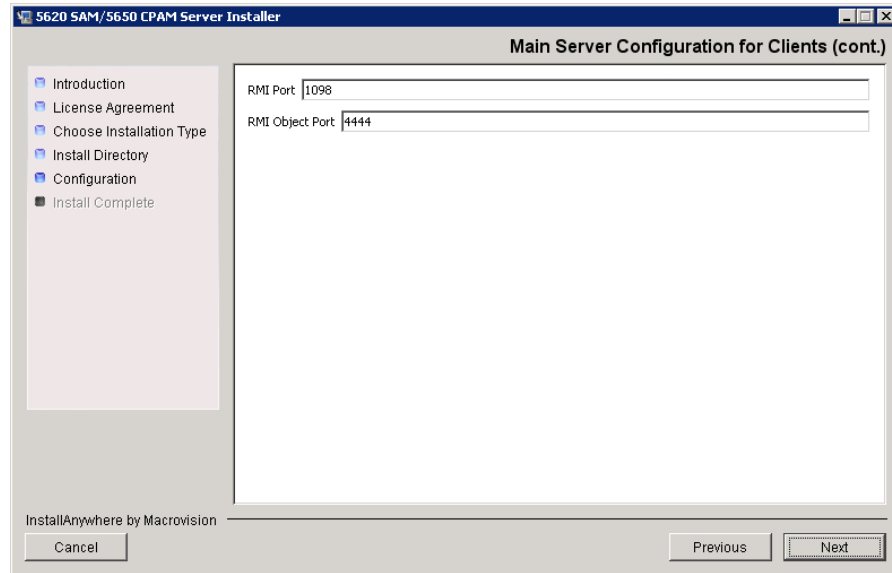
- A text box with the instruction: 'Enter the network interface information that the GUI and OSS clients require to communicate with this 5620 SAM main server.'
- 'Server Domain Name' text box containing '5620sam'.
- A checked checkbox for 'NAT (network address translation) Used'.
- 'Private IP (accessible only by this server)' dropdown menu showing '192.168.200.111'.
- 'Public IP (accessible to clients)' empty text box.
- 'EJB JNDI Server port' text box containing '1099'.
- 'EJB JMS Server port' text box containing '8093'.
- An unchecked checkbox for 'Enable 5670 RAM'.

At the bottom, there is a status bar with 'InstallAnywhere by Macrovision' and three buttons: 'Cancel', 'Previous', and 'Next'.

- 13 Configure the following parameters shown in Figure 2-40, then click on the Next button:

- RMI Port (typically 1098)
- RMI Object Port (typically 4444)

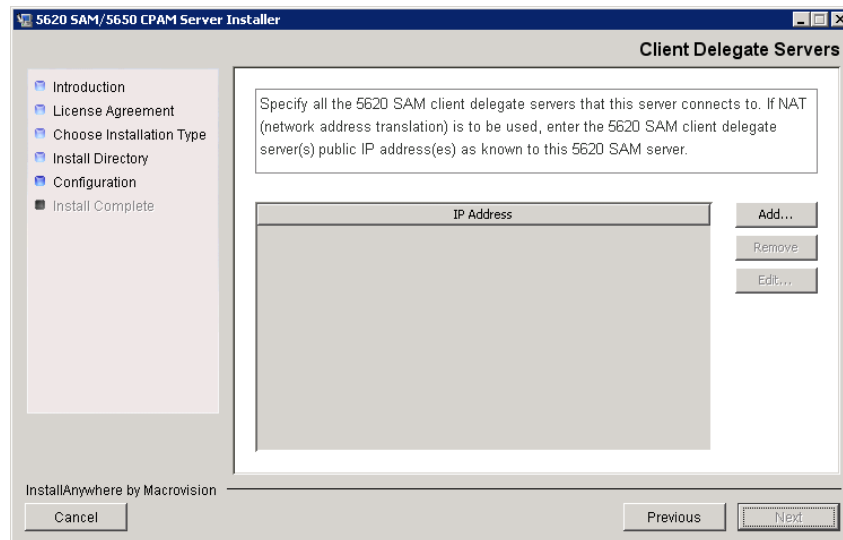
Figure 2-40 Main Server Configuration for Clients (cont.)



- 14 The panel in Figure 2-41 is displayed if you select “Client Delegate Server Supported” in step 9. Otherwise, go to step 16.

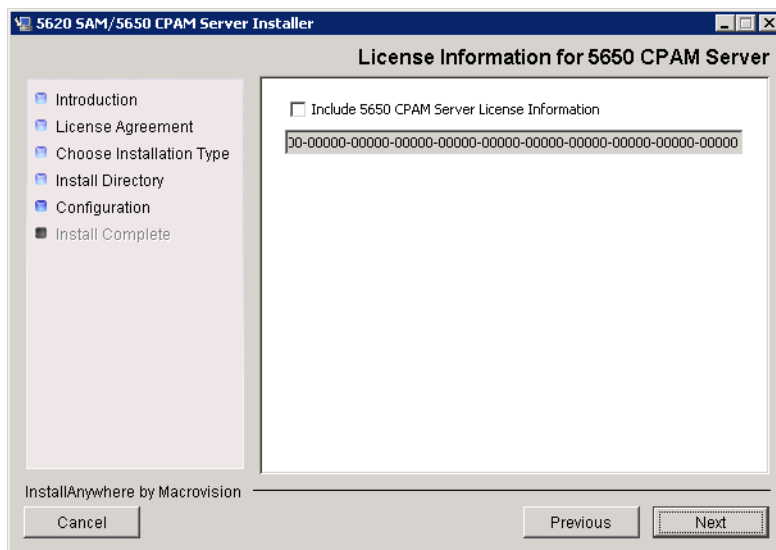
Click on the Add button to specify the client delegate server IP addresses, as required. If NAT is used between the 5620 SAM main and client delegate servers, specify the public IP address. Click on the Next button.

Figure 2-41 Client Delegate Servers



- 15 Specify whether the 5620 SAM configuration includes a 5650 CPAM server, as shown in Figure 2-42. If it does, enter the 5650 CPAM license key provided by Alcatel-Lucent. Include the dashes in the key. Click on the Next button.

Figure 2-42 License Information for 5650 CPAM Server



16 Perform one of the following to specify where the 5620 SAM user documentation is to be stored.

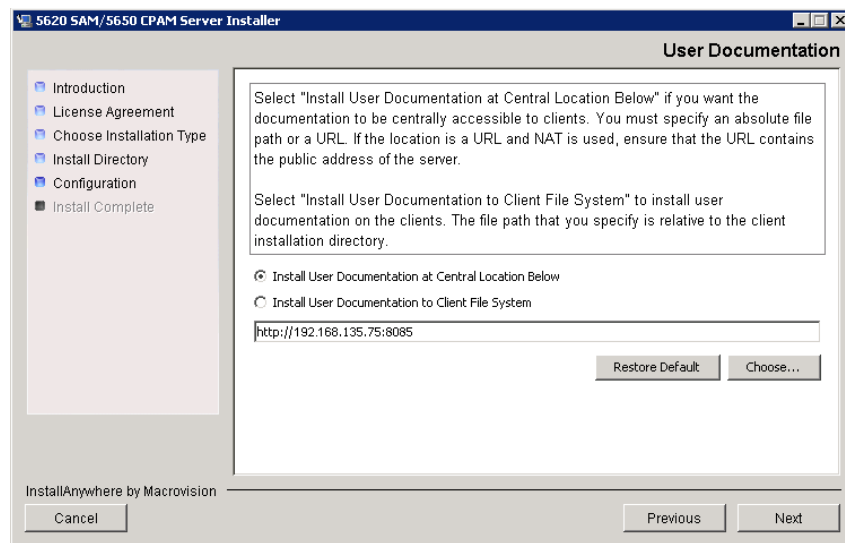
- a To store the documentation in a central location that is available to all clients, perform the following steps.
 - i Select the “Install User Documentation at Central Location Below” parameter, as shown in Figure 2-43.
 - ii To accept the default user documentation location, go to step 17.



Note — If NAT is to be used between the 5620 SAM main server and clients, you must update the default location using the public IP address of the main server, or the documentation is not accessible to clients.

- iii Specify a location for the 5620 SAM user documentation in the field below the parameters.
- iv Copy the contents of the User_Documentation directory on the 5620 SAM installation DVD-ROM to the location specified in step iii.
- v Click on the Next button. A dialog box appears.
- vi Click on the OK button.

Figure 2-43 User Documentation



- b To store a copy of the documentation on the client file system, perform the following steps.

- i Select the “Install User Documentation to Client File System” parameter shown in Figure 2-43.
- ii Specify a file path relative to the 5620 SAM client installation directory. The path must not contain a leading backslash.

For example, if the installation directory is C:\5620sam\client and you specify Documents as the location, the documentation is installed in the following directory:

C:\5620sam\client\Documents



Note — The 5620 SAM client uninstaller cannot remove the documentation unless it is installed below the nms directory in the 5620 SAM client installation directory, for example, C:\5620sam\client\nms\Documents.

- 17 Click on the Next button.
- 18 Configure the following parameters shown in Figure 2-44, then click on the Next button:
 - NAT (network address translation) Used
Select this parameter only if NAT is to be used between the 5620 SAM server and the managed network.
 - SNMP Trap Receiving IPv4 Address
 - SNMP Trap Receiving Port (typically 162)
 - Trap Log Id (typically 98)

Figure 2-44 SNMP Configuration

5620 SAM/5650 CPAM Server Installer

SNMP Configuration

Introduction
License Agreement
Choose Installation Type
Install Directory
Configuration
Install Complete

If NAT (network address translation) is to be used, enter the 5620 SAM main server's public IP address as known to the devices within the managed network.

☐ NAT (network address translation) Used

SNMP Trap Receiving IPv4 Address: 192.168.200.111

SNMP Trap Receiving Port: 162

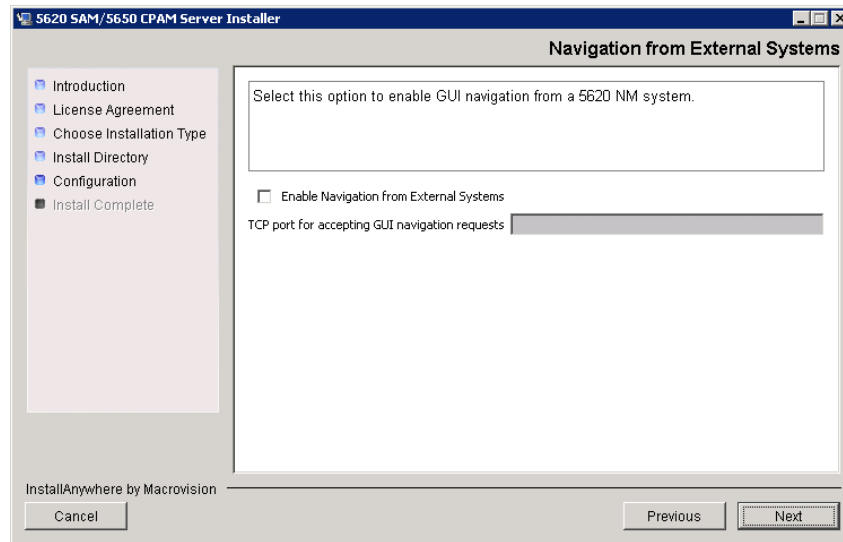
Trap Log Id: 98

InstallAnywhere by Macrovision

Cancel Previous Next

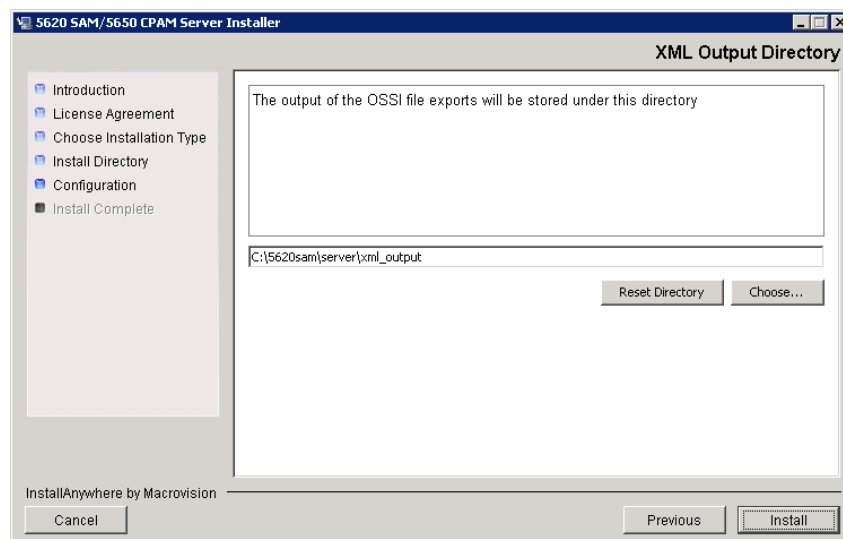
- 19 If you require 5620 SAM client navigation from a 5620 NM system, select the “Enable Navigation from External Systems” parameter shown in Figure 2-45 and specify the TCP port that the client is to use for accepting navigation requests. Click on the Next button.

Figure 2-45 Navigation from External Systems



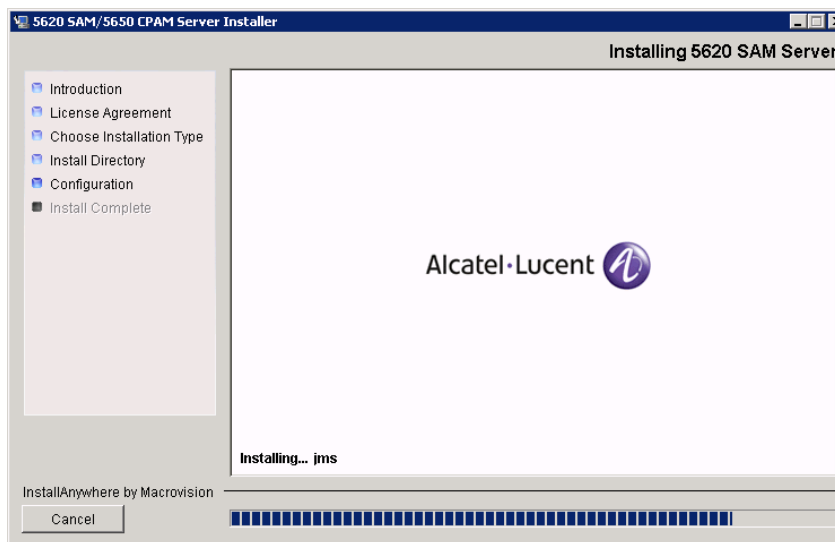
- 20 Specify a directory for OSS XML output (typically C:\5620sam\server\xml_output), as shown in Figure 2-46. Click on the Install button to begin the main server installation.

Figure 2-46 XML Output Directory



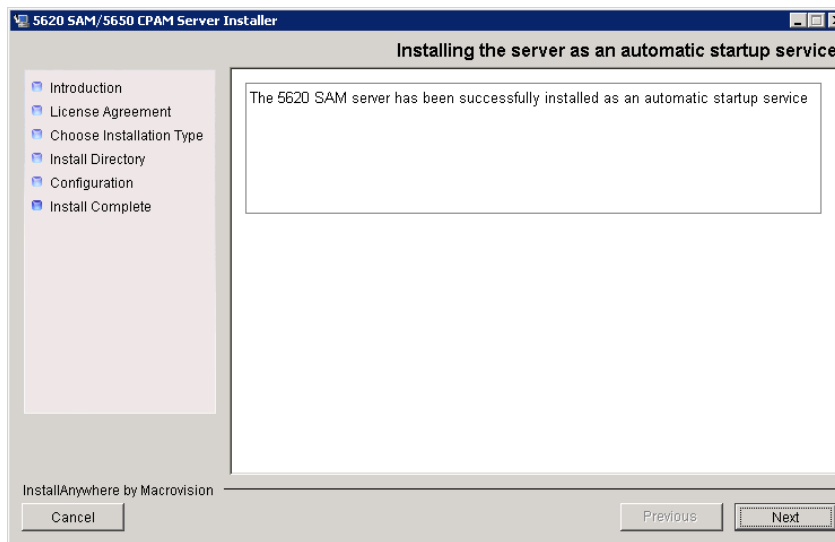
The next panel displays installation progress, as shown in Figure 2-47.

Figure 2-47 Installing 5620 SAM Server



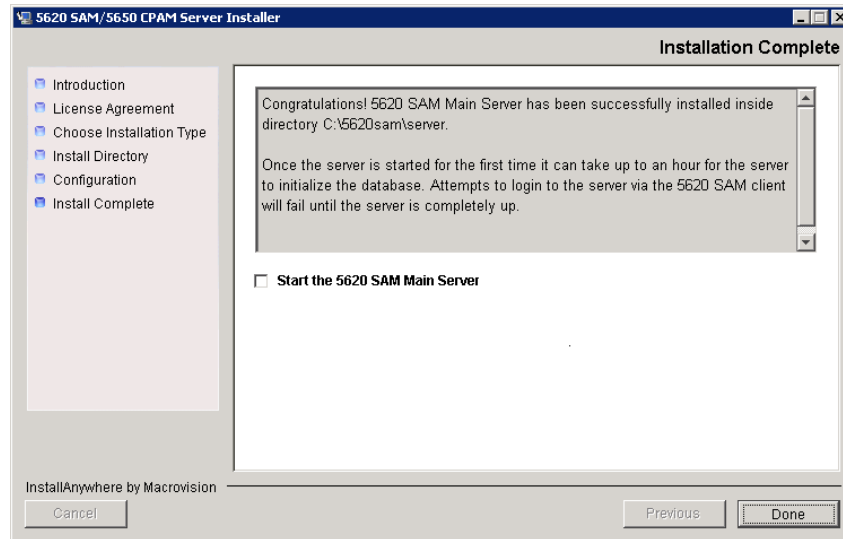
- 21 As shown in Figure 2-48, the 5620 SAM main server is installed as a Windows service. Click on the Next button.

Figure 2-48 Installing the server as an automatic startup service



- 22 When the main server installation is complete, as shown in Figure 2-49, configure the “Start the 5620 SAM Main Server” parameter to specify whether you want the main server to start immediately after the installation.

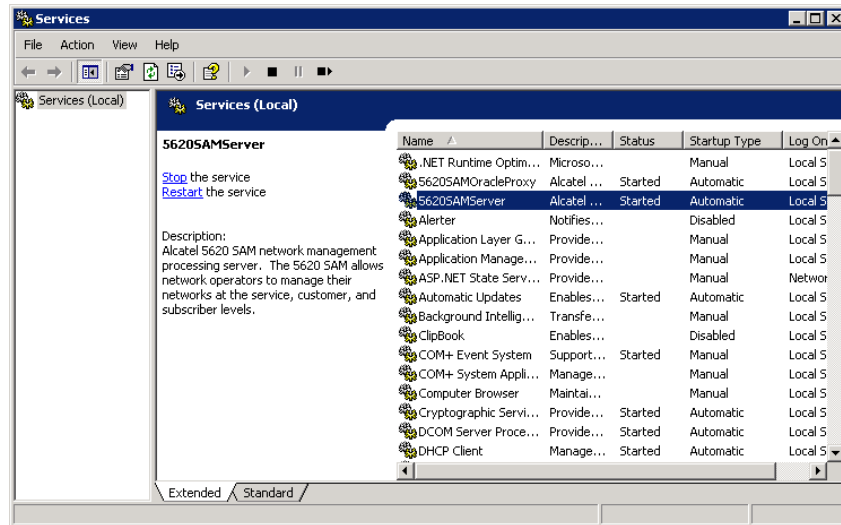
Figure 2-49 Installation Complete



- 23 Click on the Done button to close the main server installer. If you specified that the main server is to start after installation, the main server starts. Initial main server startup can take twenty minutes or more.
- 24 If you specified not to start the server immediately after the installation, perform the following steps later to start the 5620 SAM main server manually.
 - i Log in to the main server station as a user with local administrator privileges.
 - ii Click on Start→Settings→Control Panel→Administrative Tools→Services. The Services window opens.

- iii Select the 5620SAMServer entry, as shown in Figure 2-50, and click on Start the service. The 5620 SAM main server starts. Initial main server startup can take twenty minutes or more.

Figure 2-50 Services - 5620SAMServer service



Procedure 2-3 To install a 5620 SAM single-user client on Windows using a web browser

Perform this procedure to install the 5620 SAM single-user client software on a Windows station using a web browser.

You can also install a 5620 SAM single-user client or client delegate server on Solaris for use with a 5620 SAM system on Windows. See chapter 3 for information about installing a 5620 SAM single-user client or client delegate server on a Solaris station.



Note 1 — You require local user privileges to install the 5620 SAM single-user client software on Windows.

Note 2 — The 5620 SAM main server to which the single-user client connects must be running before you perform this procedure.

- 1 The client installer requires Java version 6.0 or later. Perform one of the following to ensure that the correct Java version is installed.
 - a If an earlier version of Java is installed on the client station, ensure that the client station has Internet access so that the installer can download and install the later version.
 - b If Java is not installed on the client station, visit <http://java.com> to download and install Java.

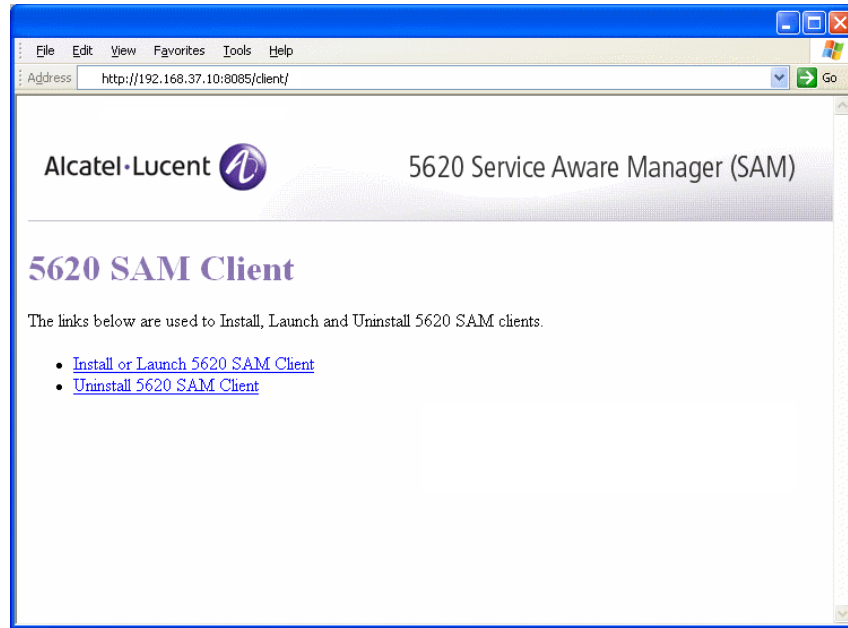
- 2 Use a web browser on the client station to open the following page on the 5620 SAM main server:

<http://server:8085/client>

where *server* is the IP address or hostname of the 5620 SAM main server

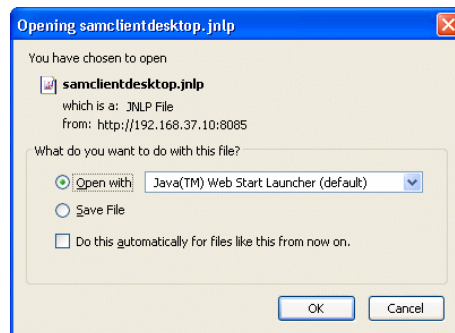
The page shown in Figure 2-51 is displayed.

Figure 2-51 5620 SAM client page



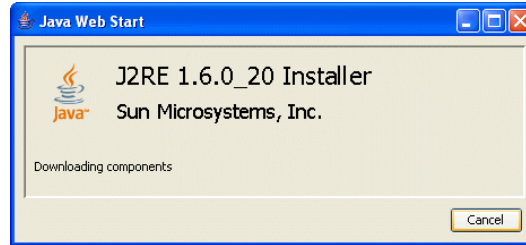
- 3 Click on the “Install or Launch 5620 SAM Client” link. The form shown in Figure 2-52 is displayed.

Figure 2-52 Opening samclientdesktop.jnlp



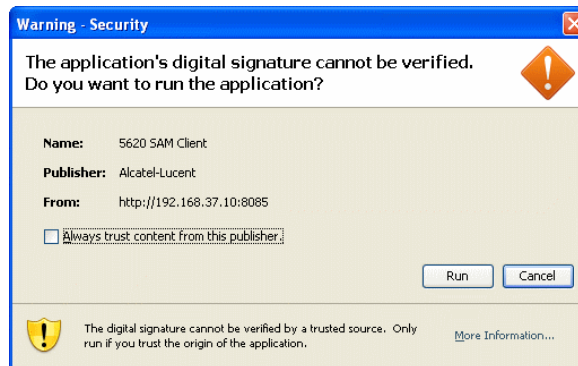
- 4 Ensure that “Open with” is selected, then click on the OK button. A Java installer opens, as shown in Figure 2-53, and begins to download components.

Figure 2-53 Java Web Start



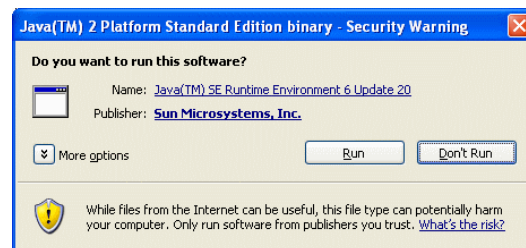
- 5 If a security warning like the one shown in Figure 2-54 is displayed, click on the Run button.

Figure 2-54 Warning - Security



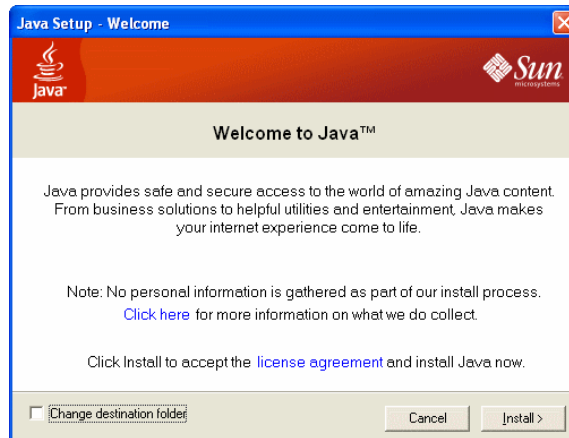
- 6 If a security warning like the one shown in Figure 2-55 is displayed, click on the Run button.

Figure 2-55 Java - Security Warning



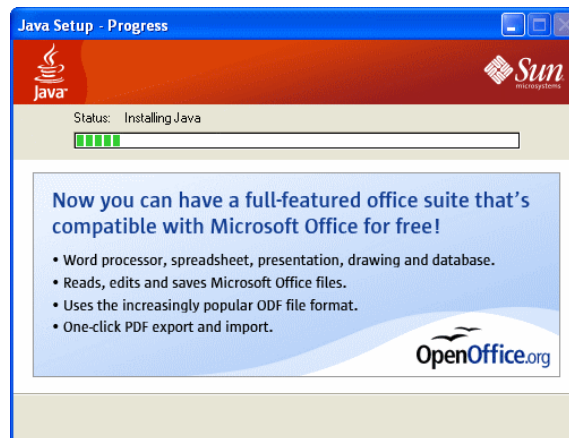
- 7 If the Java setup utility shown in Figure 2-56 opens, the installed Java version requires an update. Click on the Install button. Otherwise, go to step 9.

Figure 2-56 Java Setup - Welcome



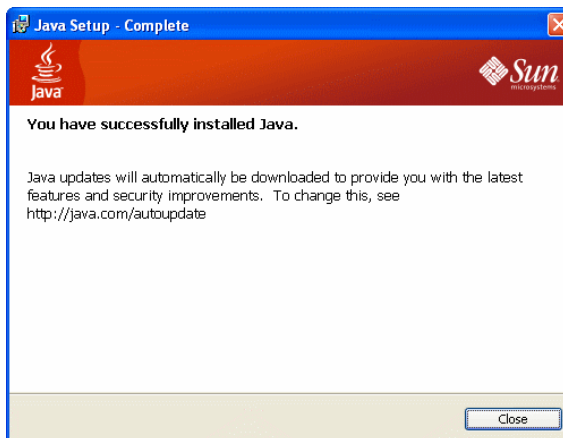
The setup utility displays installation progress, as shown in Figure 2-57.

Figure 2-57 Java Setup Progress



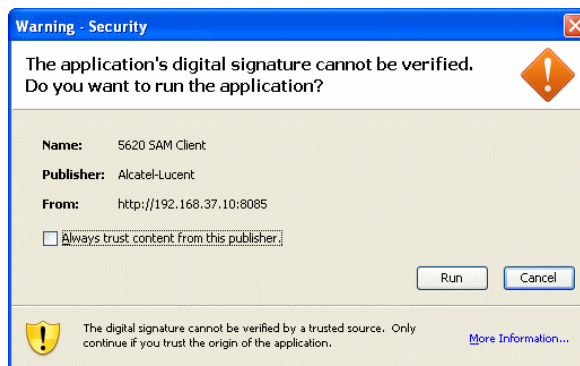
- 8 When the panel shown in Figure 2-57 is displayed, the Java setup is complete. Click on the Close button.

Figure 2-58 Java Setup - Complete



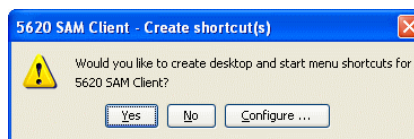
- 9 If a security warning like the one shown in Figure 2-59 is displayed, click on the Run button.

Figure 2-59 Warning - Security



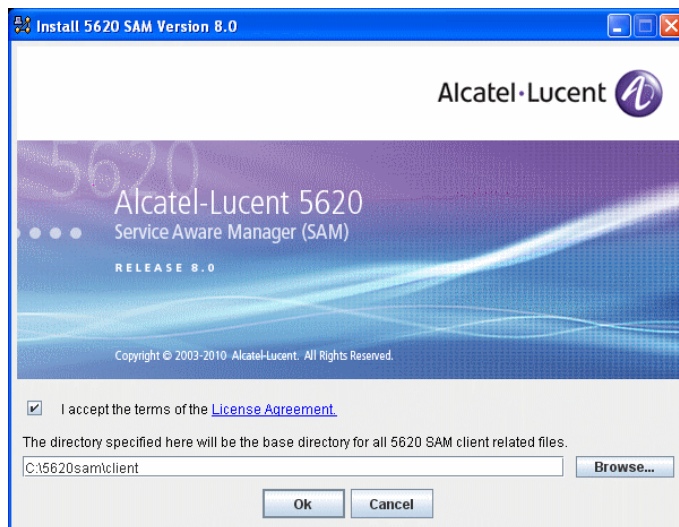
- 10 The 5620 SAM client installer opens, as shown in Figure 2-60. Click on the Yes or No button, as required, to indicate whether you want the installer to create shortcuts for the 5620 SAM client application.

Figure 2-60 5620 SAM Client - Create shortcut(s)



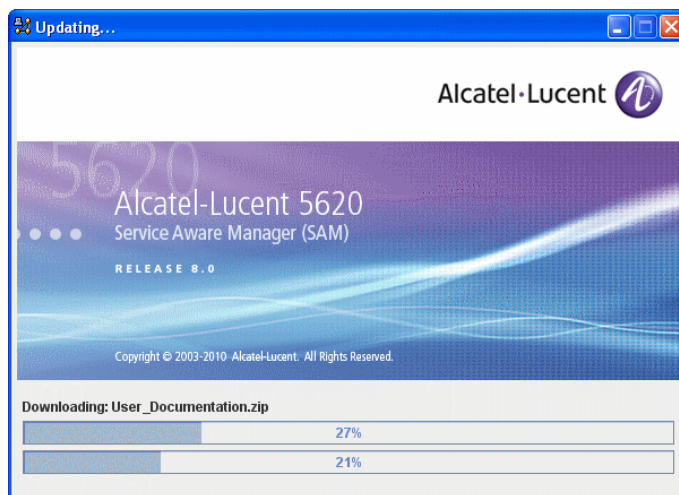
- 11 Perform the following steps when the panel shown in Figure 2-61 is displayed.
 - i Select the check box to accept the terms of the license agreement.
 - ii If required, specify a client installation location other than the default by typing the path or by using the Browse button.
 - iii Click on the OK button. The 5620 SAM client installation begins.

Figure 2-61 Install 5620 SAM Version 8.0



The panel shown in Figure 2-72 is displayed. The panel shows installation progress using separate bars to indicate the overall and current task progress.

Figure 2-62 Installation progress



When the installation is complete, the client installer closes and the newly installed 5620 SAM client GUI opens.

- 12 Log in to the 5620 SAM client GUI.



Note — The default 5620 SAM client login credentials are the following:

- Login Name—admin
- Password—5620Sam!

Procedure 2-4 To install a 5620 SAM single-user client on Windows using the software DVD-ROM

Perform this procedure to install the 5620 SAM single-user client software on a Windows station from the 5620 SAM software DVD-ROM. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.

You can also install a 5620 SAM single-user client or client delegate server on Solaris for use with a 5620 SAM system on Windows. See chapter 3 for information about installing a 5620 SAM single-user client or client delegate server on a Solaris station.



Note 1 — You require local user privileges to install the 5620 SAM single-user client software on Windows.

Note 2 — The 5620 SAM main server to which the single-user client connects must be running before the auto-client update utility can install the client software in step 10.

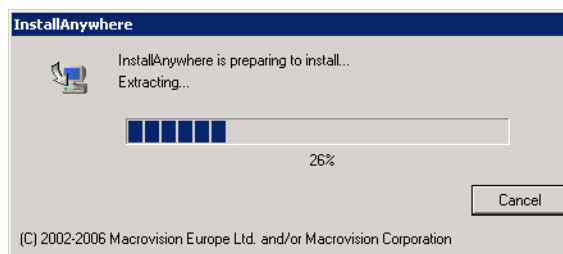
Install auto-client update utility

- 1 Navigate to the Windows directory on the 5620 SAM software DVD-ROM.
- 2 Double-click on the ClientInstall_SAM_8_0_*revision*.exe file

where *revision* is the revision identifier, such as R1, R3, or another descriptor

The installer prepares by extracting files, as shown in Figure 2-63.

Figure 2-63 Installer preparation



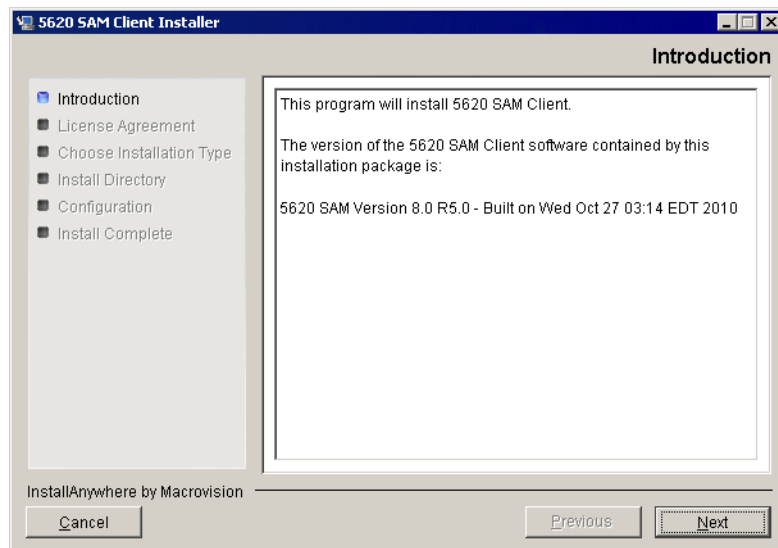
When the counter reaches 100%, the splash screen shown in Figure 2-64 opens.

Figure 2-64 5620 SAM installer



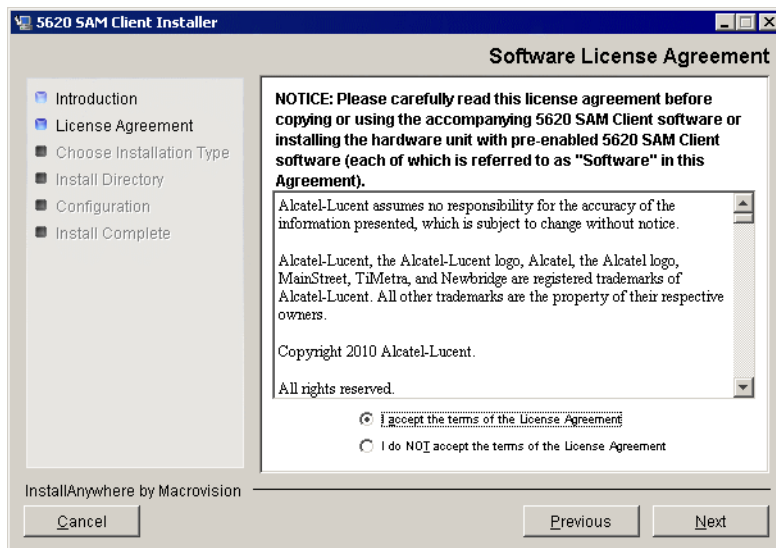
- 3 The 5620 SAM client installer opens, as shown in Figure 2-65. The left pane indicates installation progress. The right pane displays release information about the software. Click on the Next button.

Figure 2-65 Introduction



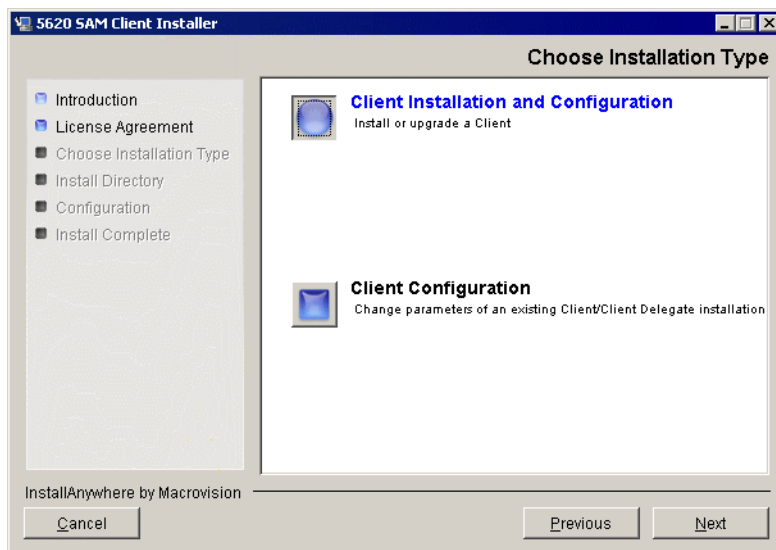
- 4 Review and accept the terms of the license agreement shown in Figure 2-66. Click on the Next button.

Figure 2-66 Software License Agreement



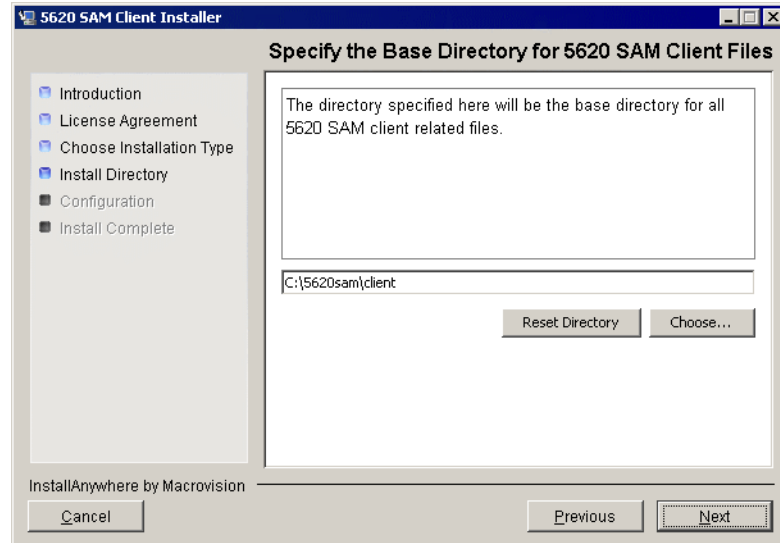
- 5 Select Client Installation and Configuration, as shown in Figure 2-67. Click on the Next button.

Figure 2-67 Choose Installation Type



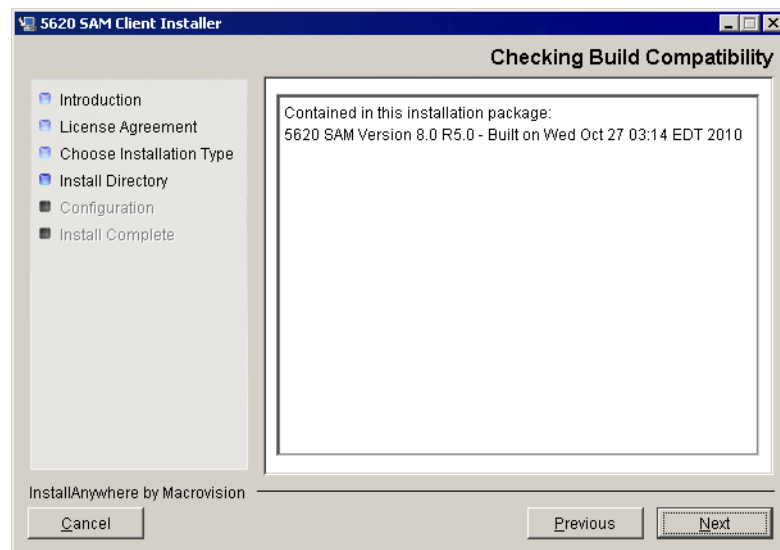
- 6 Specify a base directory in which to install the 5620 SAM client software (typically C:\5620sam\client) as shown in Figure 2-68. Click on the Next button.

Figure 2-68 Specify the Base Directory for 5620 SAM Client Files



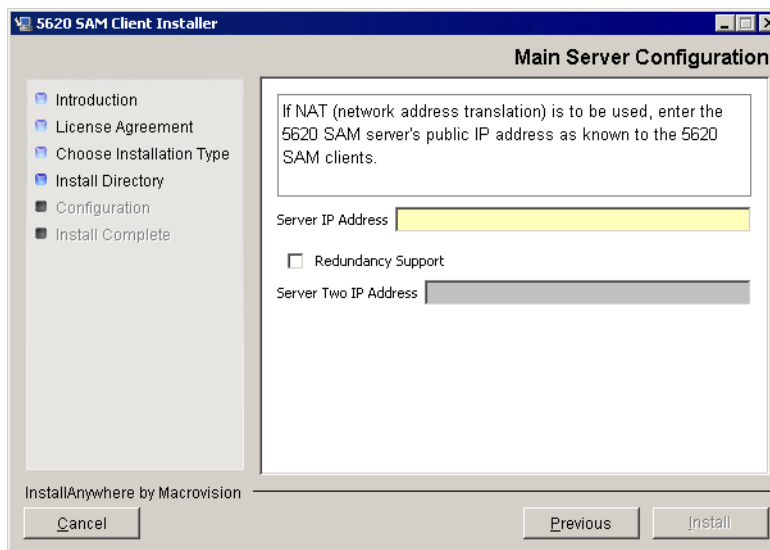
- 7 As shown in Figure 2-69, the installer indicates which release of 5620 SAM software is to be installed. Verify the information. Click on the Next button.

Figure 2-69 Checking Build Compatibility



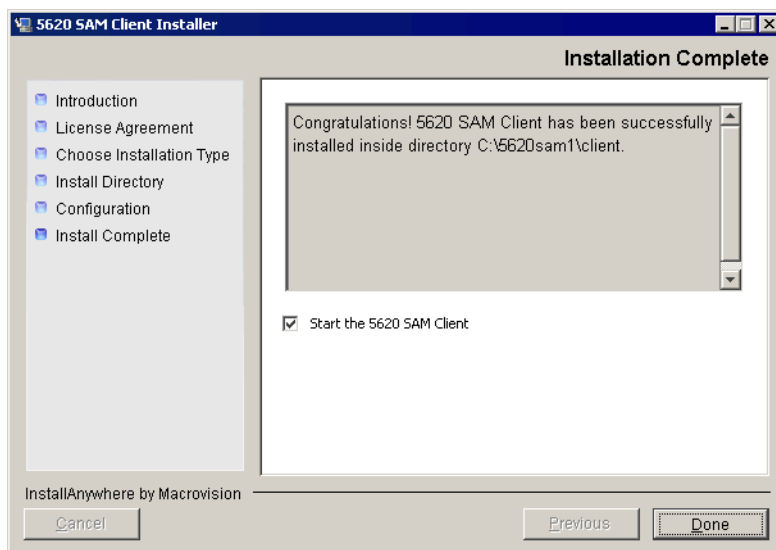
- 8 Perform one of the following:
 - a Configure the 5620 SAM client for use with a standalone 5620 SAM main server and database.
 - i Ensure that the “Redundancy Support” parameter is disabled, as shown in Figure 2-70.
 - ii Configure the “Server IP Address” parameter using the IP address that the client uses to address the 5620 SAM main server.
 - b Configure the 5620 SAM client for use with a redundant 5620 SAM main server and database.
 - i Select the “Redundancy Support” parameter shown in Figure 2-70.
 - ii Configure the “Server IP Address” parameter using the IP address that the client uses to reach the primary 5620 SAM main server.
 - iii Configure the “Server Two IP Address” parameter using the IP address that the client uses to reach the standby 5620 SAM main server, then click on the Install button to begin the auto-client update utility installation.

Figure 2-70 Main Server Configuration



- 9 When the installation is complete, as shown in Figure 2-71, configure the “Start the 5620 SAM client” parameter to specify whether the client is to start immediately after the installer closes. Click on the Done button to close the client installer.

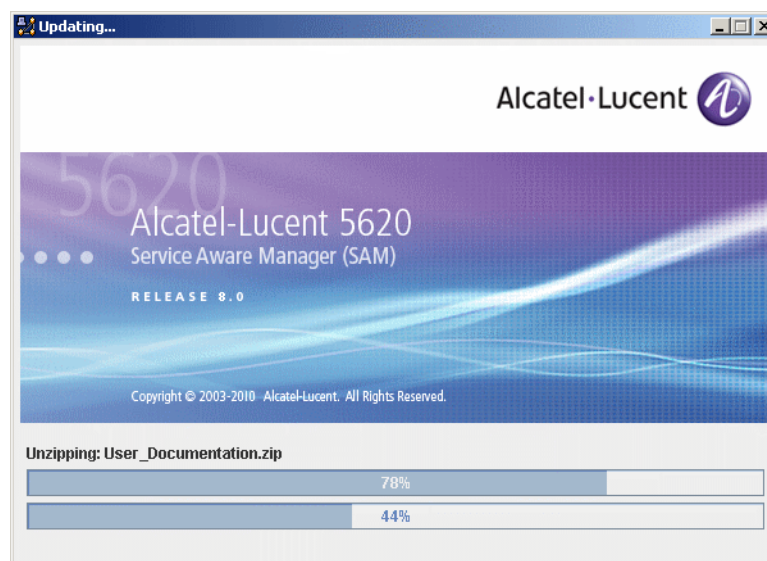
Figure 2-71 Installation Complete



Install 5620 SAM client software using auto-client update utility

- 10 If you did not select the “Start the 5620 SAM client” parameter in step 9, start the 5620 SAM auto-client update utility by double-clicking on the 5620 SAM Client App desktop icon. The utility opens, detects the available client software on the 5620 SAM main server, and displays the panel shown in Figure 2-72. The panel uses separate bars to indicate the overall and current task progress.

Figure 2-72 Installation progress



When the installation is complete, the auto-client update utility closes and the newly installed 5620 SAM client opens.

- 11 Log in to the 5620 SAM client GUI to ensure that the single-user client and main server are communicating properly.



Note — The default 5620 SAM client login credentials are the following:

- Login Name—admin
- Password—5620Sam!

Procedure 2-5 To add a client delegate server to an existing 5620 SAM system on Windows

Perform this procedure to add a new 5620 SAM client delegate server to an existing 5620 SAM system on Windows. You must use the 5620 SAM server configuration utility to add the new client delegate server to the main server configuration. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



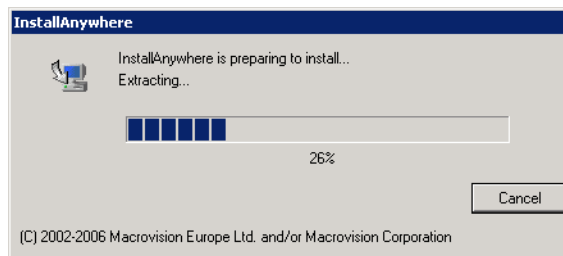
Note — You require local administrator user privileges on the 5620 SAM main server station to perform this procedure.

- 1 Perform Procedure 3-4 to install the 5620 SAM client delegate server software on the station that is to be the new client delegate server station.
- 2 Log in to the main server station as a user with local administrator privileges.
- 3 Navigate to the Windows directory on the 5620 SAM software DVD-ROM.
- 4 Double-click on the `ServerInstall_SAM_8_0_revision.exe` file

where *revision* is the revision identifier, such as R1, R3, or another descriptor

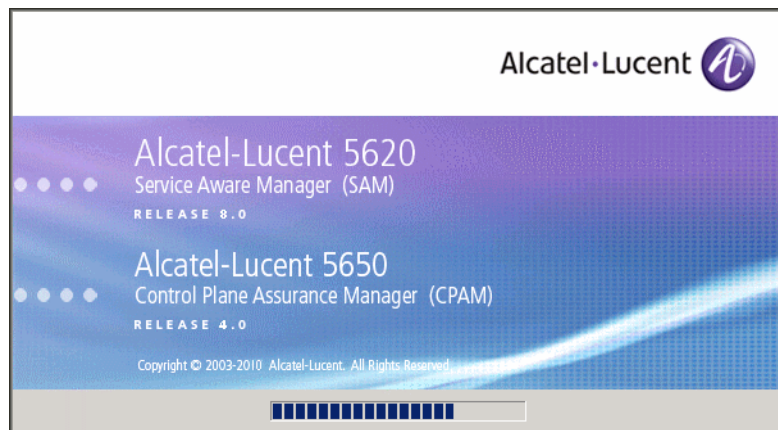
The installer prepares by extracting files, as shown in Figure 2-28.

Figure 2-73 Installer preparation



When the counter reaches 100%, the splash screen shown in Figure 2-29 opens.

Figure 2-74 5620 SAM installer



- 5 Perform the following steps to add the new client delegate server to the main server configuration.
 - i Click on the Next button in the Introduction panel.
 - ii Accept the terms of the license agreement in the Software License Agreement panel.
 - iii Click on the Next button.
 - iv Choose Main Server Configuration in the Choose Installation Type panel.
 - v Click on the Next button.
 - vi Click on the Next button on each successive panel until the Additional Server Configuration panel is displayed.
 - vii Select the Client Delegate Server Supported parameter.
 - viii Click on the Next button until the Client Delegate Servers panel is displayed.
 - ix Click on the Add button.
 - x Configure the IP Address parameter.



Note — If NAT is used between the 5620 SAM main and client delegate servers, you must specify the public IP address of the client delegate server.

- xi Click on the OK button to save the information and close the form.
 - xii Click on the Next button in each successive panel until the Installation Complete panel is displayed.
 - xiii Click on the Done button to close the main server configuration utility.
- 6 Open a console window on the main server station.

- 7 Enter the following at the CLI prompt:

```
path\nms\bin\nmsserver.bat read_config -l
```

where *path* is the 5620 SAM main server installation location, typically C:\5620sam\server

The main server reads the updated configuration and accepts client sessions from the new client delegate server.

- 8 Close the console window.
-

2.5 Workflow for 5620 SAM upgrade on Windows

The following is the sequence of high-level actions required to upgrade a 5620 SAM system on a Windows platform.

- 1 Perform the pre-upgrade tasks. See Procedure [2-6](#) for more information.
- 2 Upgrade the 5620 SAM database. See Procedure [2-7](#) for more information.
- 3 Upgrade the 5620 SAM main server. See Procedure [2-8](#) for more information.
- 4 Perform one of the following to upgrade or install the 5620 SAM client software on a Solaris station, if required.
 - a Perform Procedure [3-2](#) or [3-3](#) to install a single-user client.
 - b Perform Procedure [3-4](#) to install a client delegate server.
 - c Perform Procedure [4-3](#) to upgrade a single-user client.
 - d Perform Procedure [4-4](#) to upgrade a client delegate server.
- 5 Perform one of the following to upgrade or install the 5620 SAM client software on a Windows station, if required.
 - a Perform Procedure [2-3](#) or [2-4](#) to install a single-user client.
 - b Perform Procedure [2-9](#) to upgrade a single-user client.
- 6 If you are upgrading from 5620 SAM Release 6.0 or 6.1, you must first perform a routing policy migration. See "[Routing policy migration](#)" in Chapter [1](#) for more information.

2.6 5620 SAM upgrade on Windows procedures

This section describes how to upgrade the software components of a 5620 SAM system on Windows.

Before you begin a 5620 SAM system upgrade, you must collect the required information and ensure that the proper conditions are in place. Procedure [2-6](#) describes how to perform the required tasks to prepare for a 5620 SAM system upgrade.

Procedure 2-7 describes how to upgrade the 5620 SAM database software.
Procedure 2-8 describes how to upgrade the 5620 SAM main server software.
Procedure 2-9 describes how to upgrade the 5620 SAM client software.

Procedure 2-6 To perform the pre-upgrade tasks

Perform this procedure to prepare a 5620 SAM system on Windows for a 5620 SAM software upgrade.

Back up database

- 1 Alcatel-Lucent strongly recommends that you perform a database backup using one of the following methods before you upgrade a 5620 SAM database.



Caution — When you back up a 5620 SAM database, you must specify a backup directory that does not include the 5620 SAM database installation directory, or data loss may occur. The default 5620 SAM database installation directory is C:\5620sam\samdb.

- a Use the 5620 SAM client GUI. See the *5620 SAM User Guide* for information about how to perform a database backup using the client GUI.
- b Use a CLI script. Perform the following steps.
 - i Log in to the database station as a user with local administrator privileges.
 - ii Open a console window.
 - iii Enter the following at the CLI prompt to begin the database backup:

`path\SAMbackup.bat backup_directory ↵`

where

path is the location of the 5620 SAM database backup script file, typically C:\5620sam\samdb\install\config\samdb

backup_directory is the directory that is to contain the database backup

The 5620 SAM backs up the database.

- iv Close the console window.

Verify managed-device and 5620 SAM policy compatibility

- 2 Confirm that the new 5620 SAM software release supports the software release of each 5620 SAM-managed device. Perform one of the following for each unsupported device before you attempt the upgrade, or a service disruption may occur. See the *5620 SAM NE Compatibility Guide* for information about managed-device release and 5620 SAM release compatibility.
 - a Upgrade the device to a software release that the new 5620 SAM software supports. See the appropriate device documentation for information about device software upgrades.
 - b Remove the device from the 5620 SAM managed network. See the *5620 SAM User Guide* for information about performing the following steps.
 - i Use a 5620 SAM client to unmanage the device.
 - ii When the device is unmanaged, use the 5620 SAM client to remove the device from the 5620 SAM network.



Note — If you have a 5620 SAM system that manages one or more OmniSwitch devices as generic NEs, you must unmanage and delete the OmniSwitch generic NEs before you upgrade the 5620 SAM software.

You can manage the devices directly, rather than as generic NEs, when the 5620 SAM upgrade is complete.

- 3 If you are upgrading from 5620 SAM Release 7.0 R4 or later, perform the following steps to ensure the compatibility of the egress queue group template policies.
 - i Choose Policies→QoS→SROS QoS→Queue Group→Egress Template from the 5620 SAM main menu. The Manage Egress Queue Group Template Policies form opens.
 - ii Click on the Search button.
 - iii View the list. If no policy has the following Displayed Name value, go to step 4:

policer-output-queues
 - iv Select the policy named policer-output-queues and click on the Properties button. The Egress Queue Group Template Policy (Edit) form opens.
 - v Click on the Copy button. The Egress Queue Group Template Policy (Create) form opens.
 - vi Change the Displayed Name value to something other than policer-output-queues.
 - vii Distribute the policy to devices, as required.
 - viii Delete the policy named policer-output-queues.
- 4 If you are upgrading from 5620 SAM Release 6.0, you must update the SNMP configuration of each 7750 SR that you manage using SNMPv3. Otherwise, the 5620 SAM cannot perform mediation of VPRN objects on the device.

Perform the following steps on each 7750 SR that you manage using SNMP v3:

i Open a CLI session on the managed device.

ii Enter the following command at the prompt:

```
configure system security snmp ↵
```

iii Enter the following command at the prompt:

```
access group "snmpv3_groupname" security-model usm  
security-level privacy context vprn prefix read "vprn-view"  
write "vprn-view" notify "iso" ↵
```

where

snmpv3_groupname is the name that is being assigned to the SNMP group

iv Enter the following command at the prompt:

```
exit all ↵
```

Verify external-system compatibility

- 5 Ensure that the new 5620 SAM software is compatible with the software release level of each external system, such as the 5750 SSC, that connects to the 5620 SAM system. Contact Alcatel-Lucent technical support for information about 5620 SAM compatibility with an external system.

Gather required information

- 6 Obtain the following information from the main server station and record it for use during the upgrade:
 - hostname
 - IP addresses:
 - main server IP address used by the 5620 SAM database to reach the main server (public IP address, if NAT is used)
 - main server IP address used by 5620 SAM GUI and OSS clients to reach the main server (public IP address, if NAT is used)
 - private main server IP address (if NAT is used)
 - local administrator user credentials
- 7 If the 5620 SAM system includes one or more client delegate servers, perform the following steps. Otherwise, go to step 10.
 - i Open a 5620 SAM client.
 - ii Choose Administration→System Information from the 5620 SAM main menu. The System Information window is displayed.
 - iii Click on the Client Delegate Servers tab button.

- 8 Perform the following steps for each client delegate server listed on the form.
 - i Select the client delegate server in the list and click on the Properties button. The properties form for the client delegate server opens.
 - ii Record the IP Address value for use during the upgrade.
 - iii Close the client delegate server properties form.
- 9 Close the System Information form, if it is open.
- 10 Obtain the following information from the database station and record it for use during the upgrade:
 - IP addresses:
 - database IP address used by the main server to reach the database (public IP addresses, if NAT is used)
 - private database IP address (if NAT is used)
 - local administrator user credentials
 - Oracle database user ID (default value at installation is samuser)
 - Oracle database user password
 - Oracle SYS password
 - Oracle base installation directory name (default value at installation is C:\5620sam\oracle10r2)
 - 5620 SAM database installation directory name (default value at installation is C:\5620sam\samdb)

Close client sessions

- 11 Close the 5620 SAM client session on each station that connects to the 5620 SAM main server.
 - i Open a 5620 SAM client session using an account with security management privileges, such as admin.
 - ii Click on Administration→Security→5620 SAM User Security in the 5620 SAM main menu. The 5620 SAM User Security - Security Management (Edit) form opens with the General tab displayed.
 - iii Click on the Sessions tab button.
 - iv Click on the Search button. The form displays a list of the active 5620 SAM client sessions.
 - v Using the IP addresses in the Client IP column, identify the GUI or OSS clients that are currently logged in.



Note — One of the listed sessions is the session that you are using to list the client sessions.

- vi Close each listed 5620 SAM client application session, except for the one you are using, by choosing File→Exit from the 5620 SAM main menu.

- vii Click on the Search button again to refresh the list of open client sessions.
 - viii Confirm that only one client session remains open.
- 12 Close the 5620 SAM client by choosing File→Exit from the 5620 SAM main menu.

Close 5620 SAM LogViewer

- 13 If you are upgrading a Release 6.1 R1 or later 5620 SAM system, close the 5620 SAM LogViewer application if it is open.



Caution — If the 5620 SAM LogViewer is running during a 5620 SAM upgrade, the upgrade fails.

Open port for client and main server communication

- 14 Confirm that the firewalls between the 5620 SAM main server and client allow traffic to the HTTP or HTTPS port used for performing automatic client updates. Otherwise, you cannot perform a client installation. By default, the auto-update utility uses HTTP. See the *5620 SAM User Guide* for information about configuring 5620 SAM clients and servers to communicate using HTTP or HTTPS.

Back up configuration files

- 15 Make a backup copy of each file that you have created or customized in or under the *path\nms* and *path\jre* directories on each server station

where *path* is the 5620 SAM server installation location, typically C:\5620sam\server



Note — At the beginning of a 5620 SAM server upgrade, the 5620 SAM installation utility backs up specific configuration and log files to a timestamped directory under the installation directory. The utility then deletes directories under the server installation directory. If you have created or customized a file under the installation directory, you risk losing the file unless you back up the file before the upgrade to a storage location that is unaffected by the upgrade.

Store the files in a secure location that is unaffected by 5620 SAM upgrade activity.

- 16 Make a copy of any custom XML configuration files in the *path*\nms\jboss directory on the main server station

where *path* is the 5620 SAM main server installation location, typically C:\5620sam\server



Note — The upgrade process re-installs and potentially modifies the format of the XML files in the jboss directory. You can use the copy of the pre-upgrade XML files as a reference for restoring your custom configuration, but you cannot use the files as part of the upgraded main server configuration. Copying the files to the new jboss directory after the upgrade does not restore the configuration specified in the XML files.

Store the files in a secure location that is unaffected by 5620 SAM upgrade activity, such as a non-5620 SAM station.

- 17 If the 5620 SAM main server is configured to use SSL or HTTPS to communicate with other systems, make note of the main-server interfaces that use the protocols. The interfaces may include the following:

- the EJB interface used for the single-user 5620 SAM GUI clients and client delegate servers
- the JMS interface used for the single-user 5620 SAM GUI clients, OSS clients, and client delegate servers
- the HTTP interface used for the single-user 5620 SAM GUI clients and client delegate servers
- the HTTP interface used for the 5620 SAM OSS clients



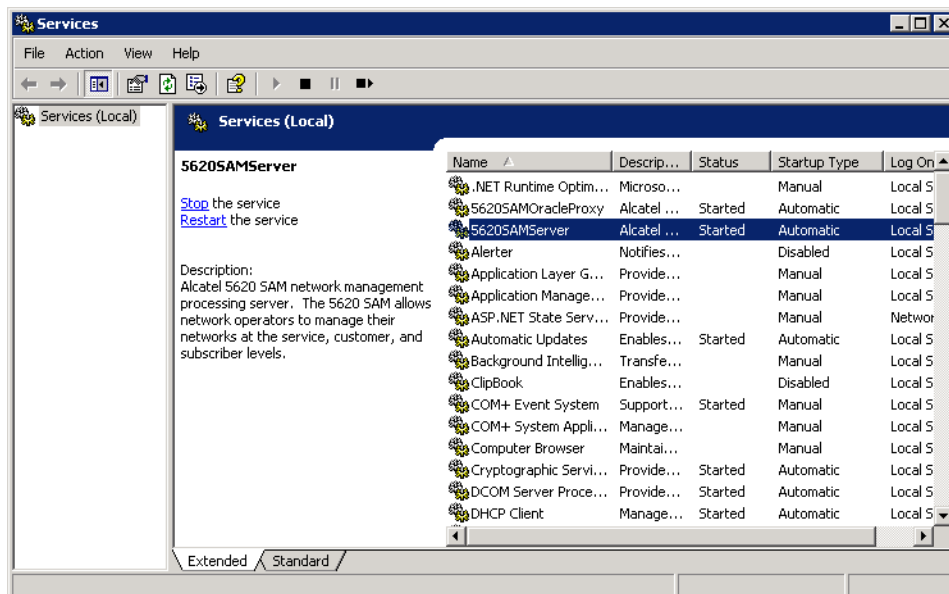
Note — A 5620 SAM software upgrade removes an SSL or HTTPS configuration on a 5620 SAM component. If a component uses SSL or HTTPS before an upgrade, you must enable SSL, and HTTPS, if required, after the upgrade. See the *5620 SAM User Guide* for information about configuring SSL and HTTPS for 5620 SAM components.

Stop main server

- 18 Stop the 5620 SAM main server application.
- i Log in to the 5620 SAM main server station as a local administrator.
 - ii Click on Start→Settings→Control Panel→Administrative Tools→Services. The Services window opens.

- iii Select the 5620SAMServer entry, as shown in Figure 2-75. Click on the Stop the service link on the left.
- iv Close the Services window.

Figure 2-75 Services - 5620 SAMServer service



- 19 Perform the following steps to verify that the 5620 SAM main server is stopped.

- i Open a console window.
- ii Enter the following at the CLI prompt to change to the main server binary directory:

```
cd path\nms\bin ↵
```

where *path* is the 5620 SAM main server installation location, typically C:\5620sam\server

- iii Enter the following at the CLI prompt:

```
nmsserver.bat appserver_status ↵
```

The command displays a status message.

- iv The 5620 SAM main server is stopped when the command displays the following status message:

```
Application Server is stopped
```

If the command displays a different message, wait 5 m and repeat step 19 iii. Do not proceed to the next step until the main server is stopped.

- v Close the console window.

Procedure 2-7 To upgrade a 5620 SAM database on Windows

Perform this procedure to upgrade the 5620 SAM database software on a Windows station. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



Note — You require local administrator user privileges to upgrade a 5620 SAM database on Windows.

- 1 Perform the following steps to determine whether the Microsoft Windows KB951312 hotfix is installed on the database station.

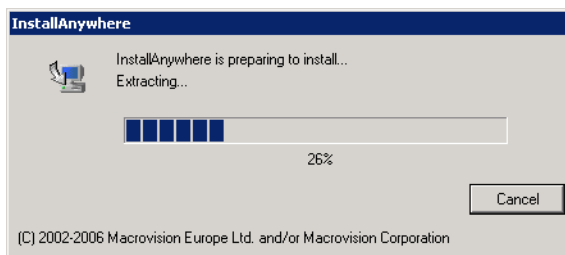


Note — A 5620 SAM database upgrade fails if the hotfix is not installed.

- i Click on Start→Settings→Control Panel. The Control Panel window opens.
 - ii Double-click on Add or Remove Programs. The Add or Remove Programs window opens.
 - iii Select the Show update check box below the title bar to display the updates that are installed on the PC.
 - iv Scroll through the list to locate a “Hotfix for Windows XP(KB951312)” entry.
- 2 If the entry is listed, go to step 4.
- 3 Perform the following steps to install the hotfix.
 - i Follow the instructions at the following URL to download the hotfix file:
[<http://support.microsoft.com/kb/951312/en-us>](http://support.microsoft.com/kb/951312/en-us)
 - ii Double-click on the downloaded hotfix file. The hotfix installer opens.
 - iii Follow the instructions that the installer displays.
- 4 Close the Add or Remove Programs window.
- 5 Close the Control Panel window.
- 6 Navigate to the Windows directory on the new 5620 SAM software DVD-ROM.
- 7 Double-click on the DBConfig_SAM_8_0_*revision*.exe file
where *revision* is the revision identifier, such as R1, R3, or another descriptor

The database installer prepares by extracting files, as shown in Figure 2-76.

Figure 2-76 Installer preparation



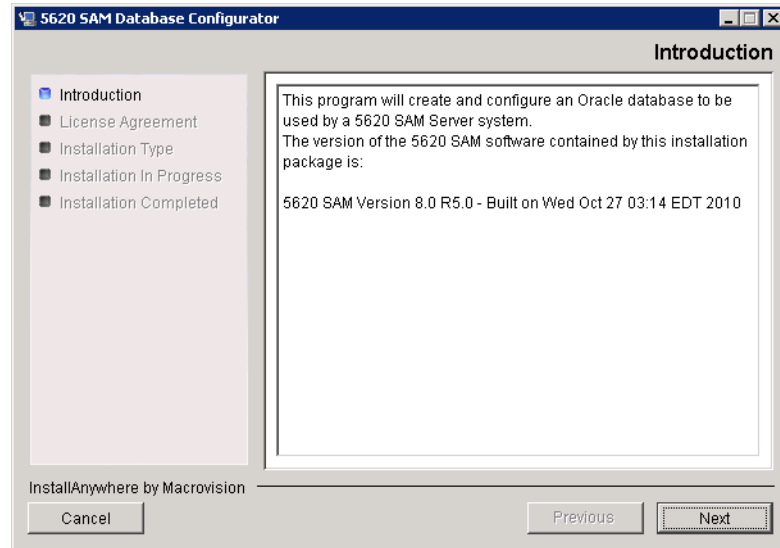
When the counter reaches 100%, the splash screen shown in Figure 2-77 opens.

Figure 2-77 5620 SAM installer



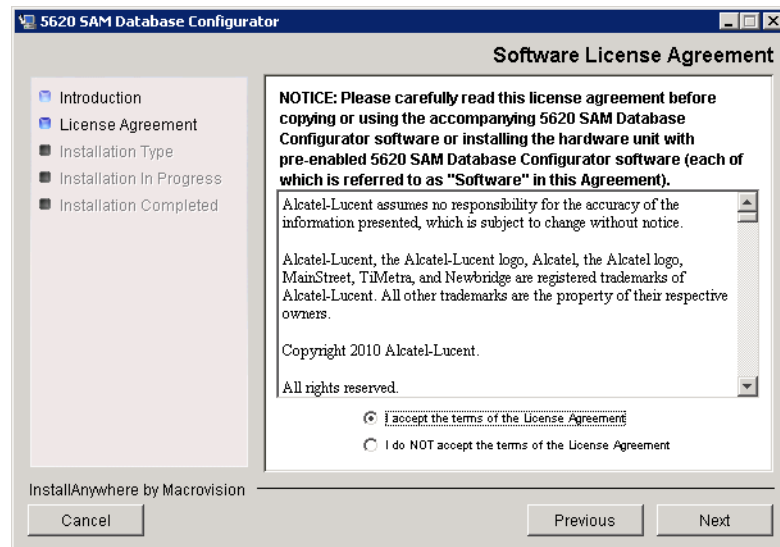
- 8 The 5620 SAM database installer opens, as shown in Figure 2-78. The left pane indicates upgrade progress. The right pane displays release information about the software. Click on the Next button.

Figure 2-78 Introduction



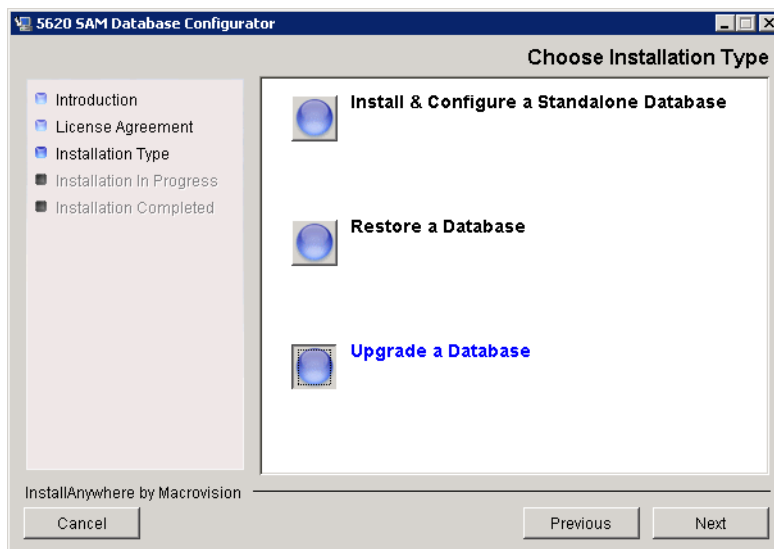
- 9 Review and accept the terms of the license agreement shown in Figure 2-79. Click on the Next button.

Figure 2-79 Software License Agreement



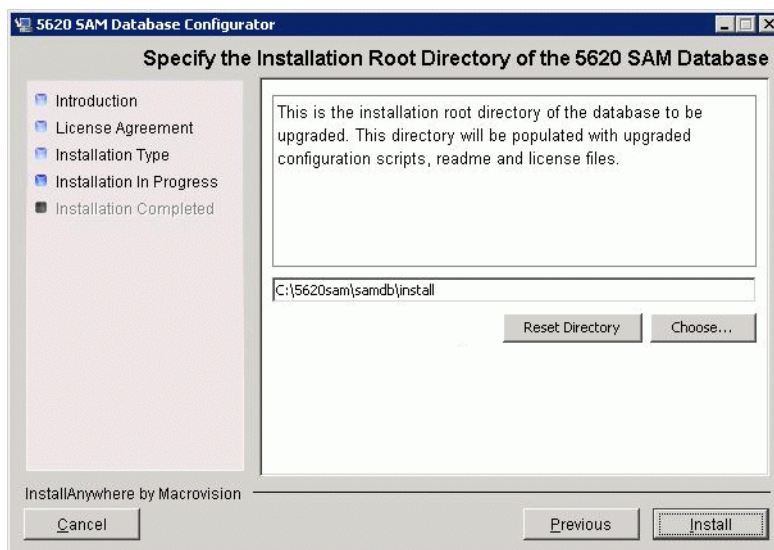
- 10 Select Upgrade a Database, as shown in Figure 2-80. Click on the Next button.

Figure 2-80 Choose Installation Type



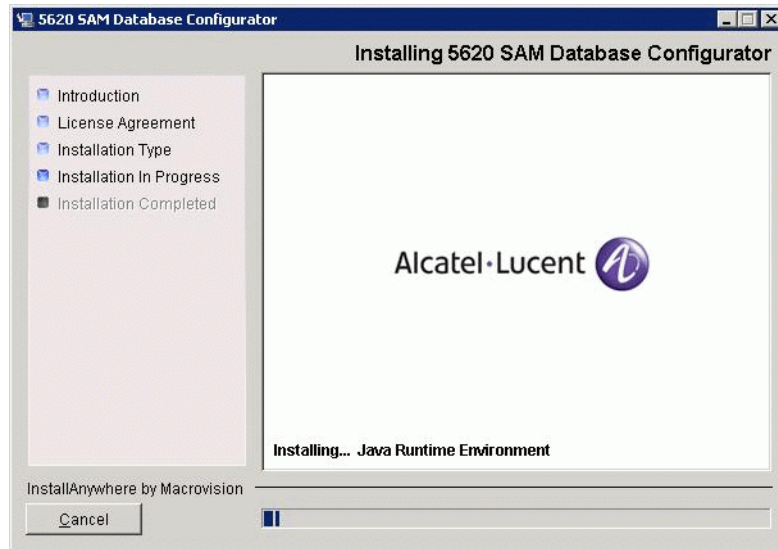
- 11 Specify the location of the existing 5620 SAM database installation (typically C:\5620sam\samdb\install), as shown in Figure 2-81. Click on the Install button to begin the database upgrade.

Figure 2-81 Specify the Installation Root Directory of the 5620 SAM Database



The installer prepares to upgrade the database, as shown in Figure 2-82.

Figure 2-82 Installing 5620 SAM Database Configurator

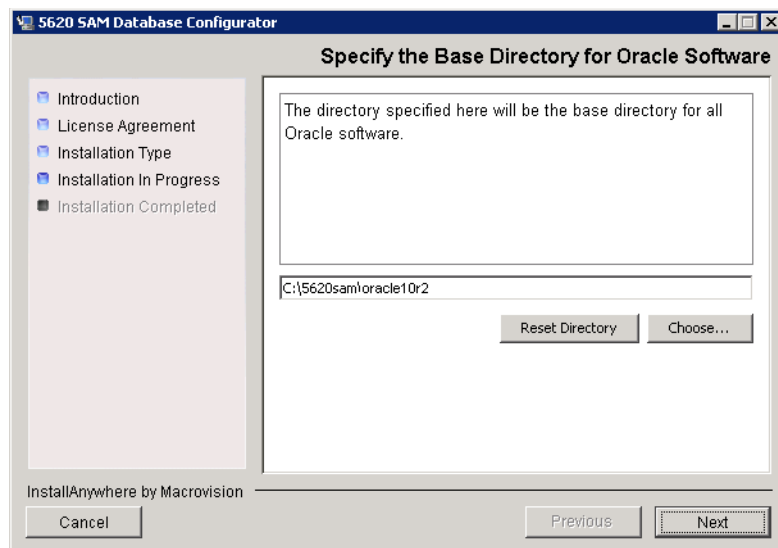


- 12 Specify the base directory of the Oracle software after the upgrade, as shown in Figure 2-83. Click on the Next button.



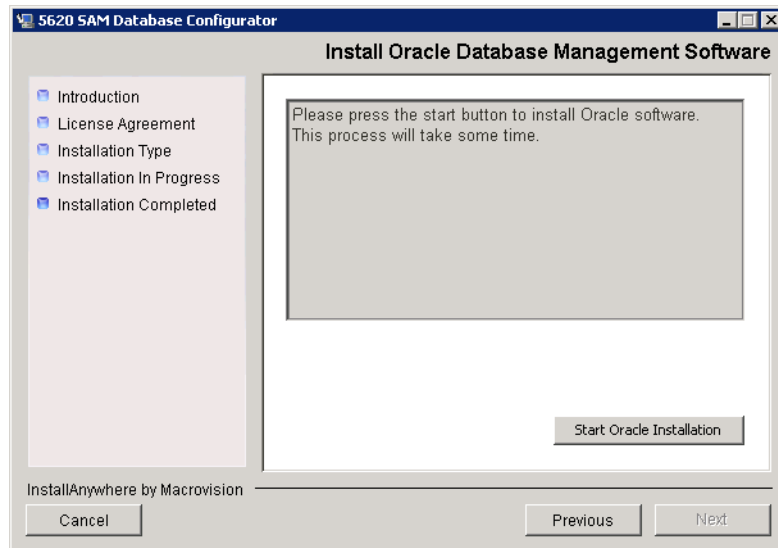
Note — A new Oracle software directory is chosen for you. You can specify an alternative directory, but the directory must be empty.

Figure 2-83 Specify the Base Directory for Oracle Software



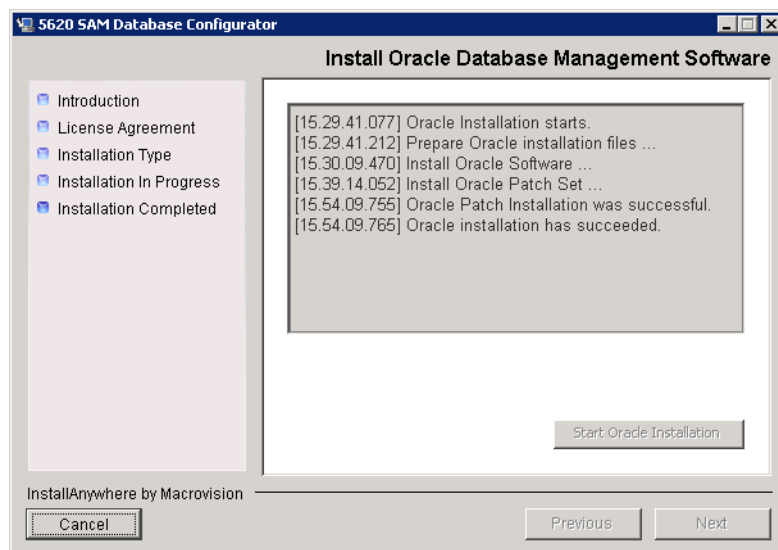
- 13 Depending on the 5620 SAM version that you are upgrading from, you are prompted to install Oracle software, as shown in Figure 2-84. This operation can take one hour or more. Click on the Start Oracle Installation button to begin the Oracle software installation. Otherwise, go to step 18.

Figure 2-84 Install Oracle Database Management Software



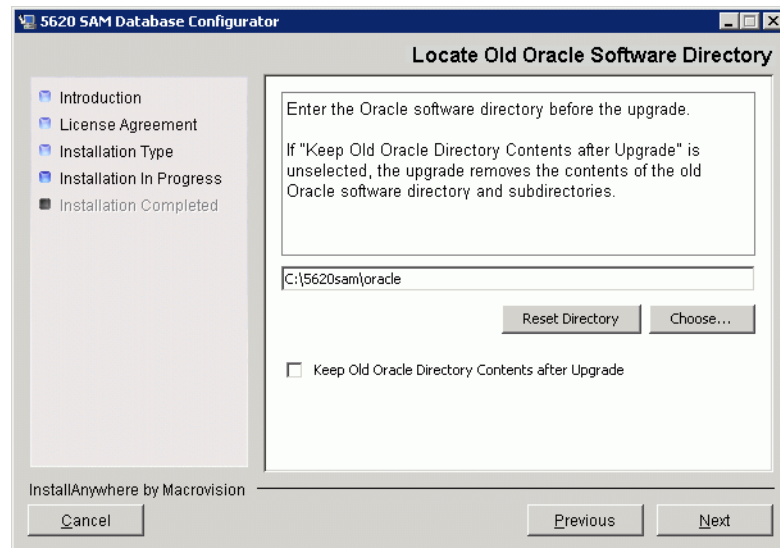
- 14 As shown in Figure 2-85, Oracle installation details are displayed as the installation progresses. When the installation is complete, click on the Next button.

Figure 2-85 Install Oracle Database Management Software



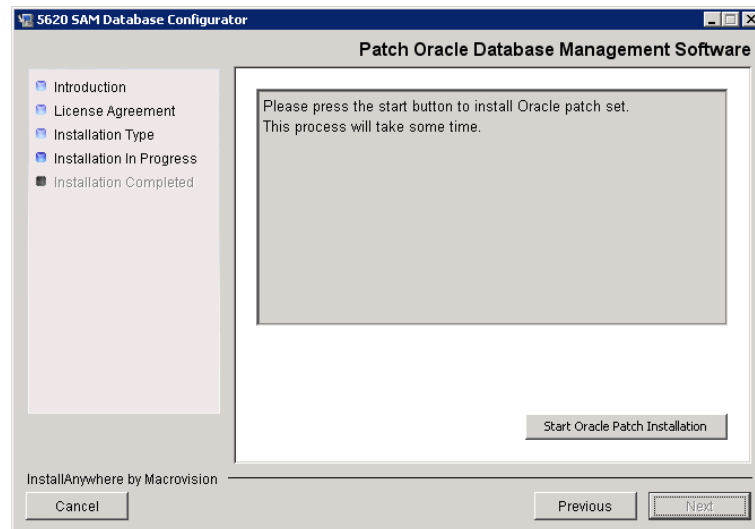
- 15 The panel shown in Figure 2-86 is displayed if you are upgrading from 5620 SAM Release 6.0 or 6.1, which installs a new Oracle version. If you do not want the existing Oracle installation deleted by the installer, enable the Keep Old Oracle Directory Contents after Upgrade parameter and specify the base directory in which the existing Oracle software is installed (typically C:\5620sam\oracle). Click on the Next button to continue.

Figure 2-86 Locate Old Oracle Software Directory



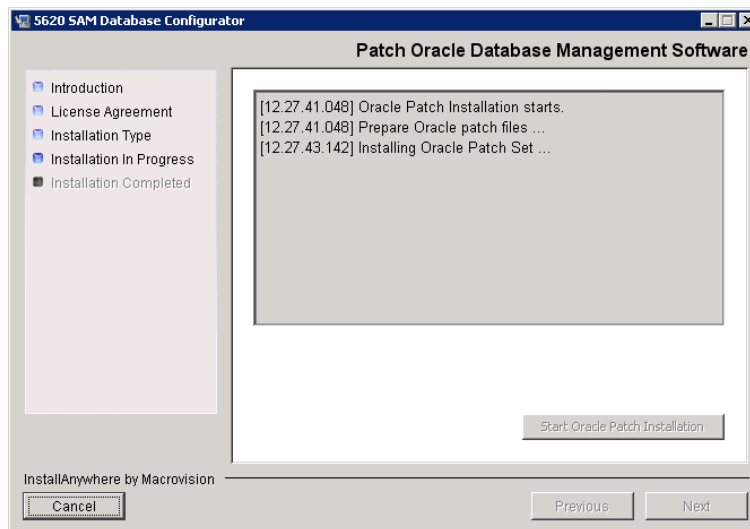
- 16 Depending on the 5620 SAM version that you are upgrading from, the panel in Figure 2-87 is displayed. If the panel is displayed, click on the Start Oracle Patch Installation button to begin installing the Oracle patch. Otherwise, go to step 18.

Figure 2-87 Patch Oracle Database Management Software



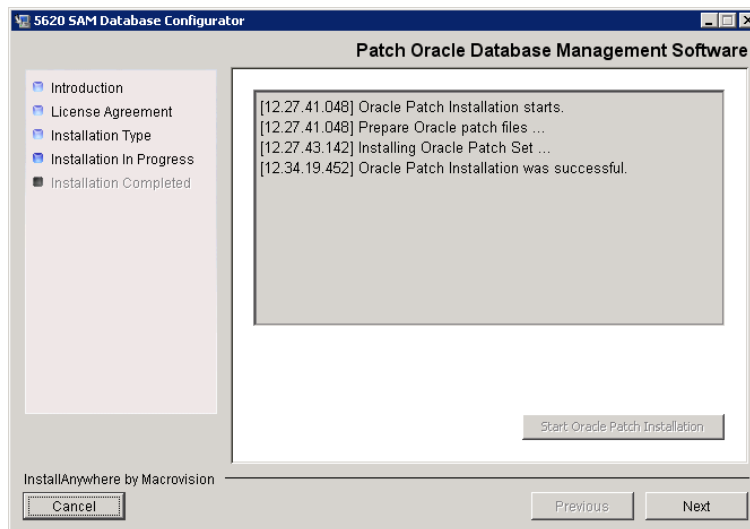
Oracle patch installation details are displayed as the patch installation progresses, as shown in Figure 2-88.

Figure 2-88 Patch Oracle Database Management Software



- 17 When the patch installation is complete, as shown in Figure 2-89, click on the Next button to continue.

Figure 2-89 Patch Oracle Database Management Software



18 Configure the following parameters shown in Figure 2-90 using information from the existing 5620 SAM installation, then click on the Next button:

- NAT (network address translation) Used
- Public IP (accessible to server)
- Private IP
- Database Name (typically samdb)
- Instance Name (typically samdb)
- User Name (typically samuser)
- User Password



Note — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected.

Figure 2-90 Get Upgrade Database Info

The screenshot shows the '5620 SAM Database Configurator' window with the 'Get Upgrade Database Info' tab selected. On the left is a navigation pane with the following items: Introduction, License Agreement, Installation Type, Installation In Progress (highlighted), and Installation Completed. The main area contains instructions: 'Enter the network interface information that the database will use to communicate with the servers. If NAT (network address translation) is to be used, specify both the database's private and public IP addresses.' Below this is a checkbox for 'NAT (network address translation) Used' which is currently unchecked. A 'Public IP (accessible to server)' dropdown menu shows '192.168.200.133'. Below that are text input fields for 'Database Name' (containing 'samdb'), 'Instance Name' (containing 'samdb'), 'User Name' (containing 'samuser'), and 'User Password' (containing eight asterisks). At the bottom left, it says 'InstallAnywhere by Macrovision' with a 'Cancel' button. At the bottom right are 'Previous' and 'Next' buttons.

- 19 Configure the following parameters shown in Figure 2-91 using information from the existing 5620 SAM installation, then click on the Next button:
 - Database Listener Port (typically 1523)
 - Database Proxy Port Number (typically 9002)

Figure 2-91 Get Upgrade Database Info (cont.)

5620 SAM Database Configurator

Get Upgrade Database Info (cont.)

Database Listener Port

Database Proxy Port Number

InstallAnywhere by Macrovision

- 20 If the “Enable SAM Server IP Validation” parameter shown in Figure 2-92 is selected, only the main server at the specified IP address can connect to the database. If required, select this parameter and enter the 5620 SAM main server IP address. Click on the Next button.

Figure 2-92 Main Server IP Validation

5620 SAM Database Configurator

Main Server IP Validation

If Network Address Translation is to be used, enter the 5620 SAM Main Server(s) public address(es), as known to this 5620 SAM Database. If IP address validation is enabled, the database will allow only connections from the specified server(s).

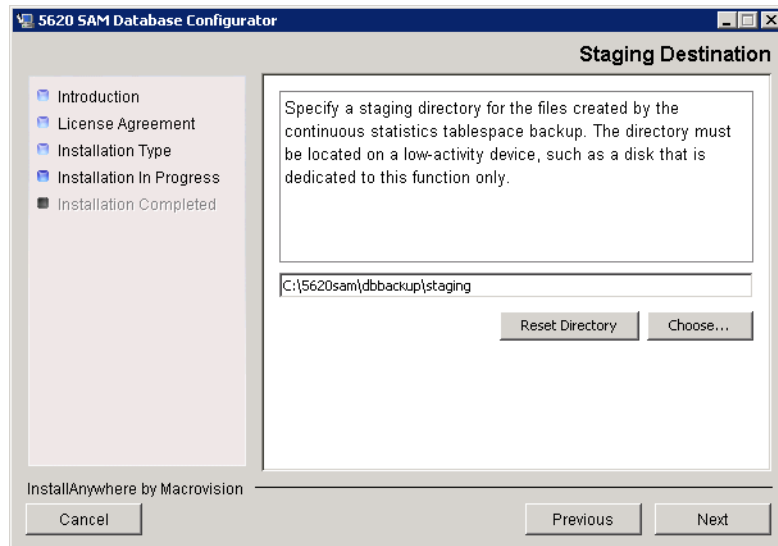
☐ Enable SAM Server IP Validation

SAM Server IP Address

InstallAnywhere by Macrovision

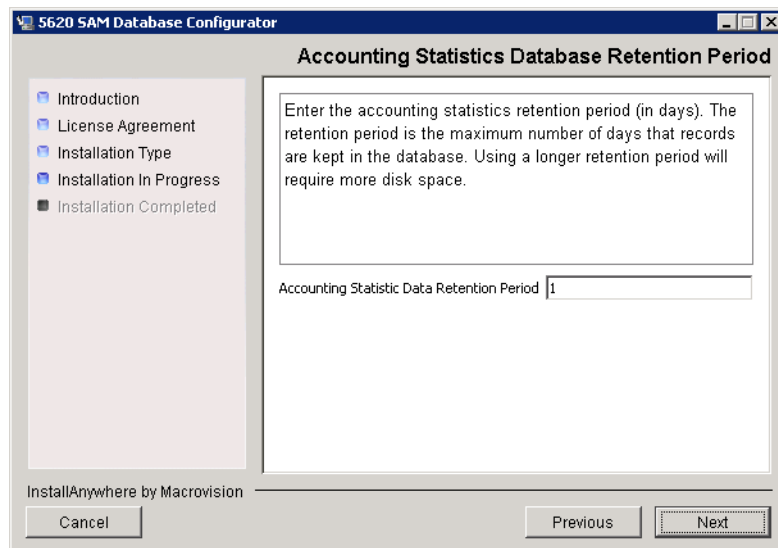
- 21 If the panel in Figure 2-93 is displayed, specify a directory for the continuous statistics tablespace backup. Click on the Next button.

Figure 2-93 Staging Destination



- 22 Configure the "Accounting Statistics Database Retention Period" parameter shown in Figure 2-94. Click on the Next button.

Figure 2-94 Accounting Statistics Database Retention Period



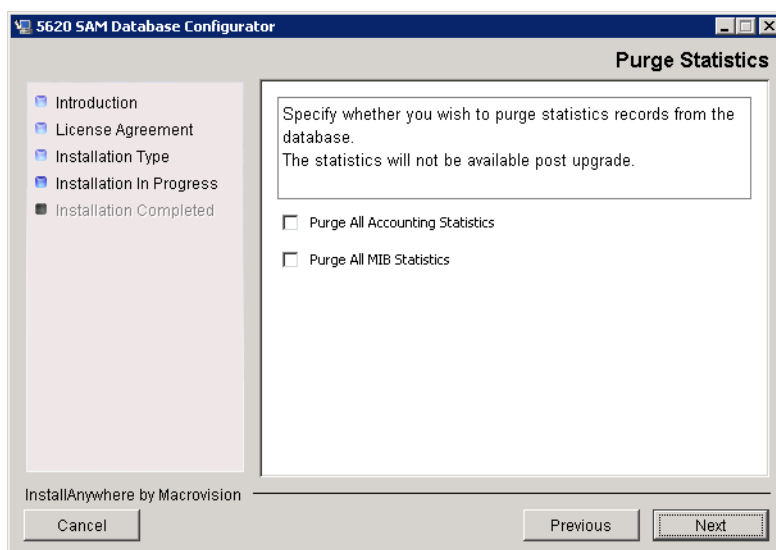
- 23 To reduce the time required for the database upgrade, you can purge the current 5620 SAM statistics data. Configure the following parameters shown in Figure 2-95, then click on the Next button:

- Purge All Accounting Statistics
- Purge All MIB Statistics



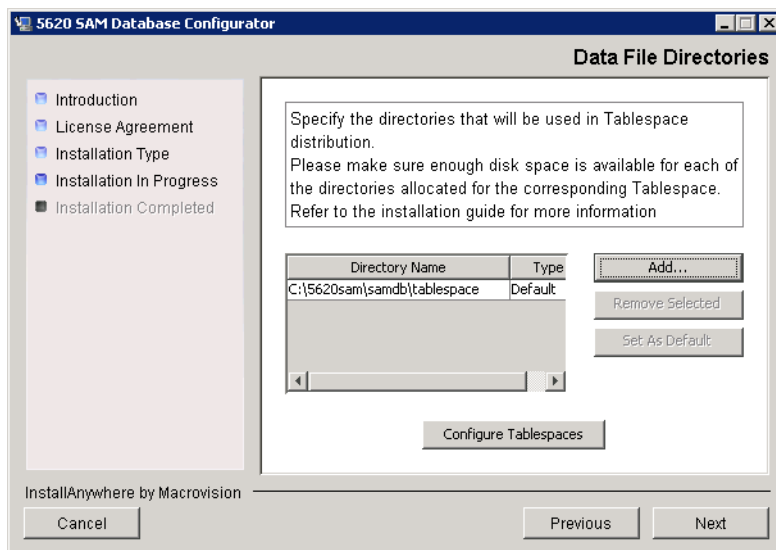
Note — The statistics data for the specified statistics types are permanently deleted from the 5620 SAM database.

Figure 2-95 Purge Statistics



- 24 If the panel in Figure 2-96 is displayed, the new database contains at least one tablespace that is not defined in the previous database and you must perform the following steps to specify the tablespace directories. Otherwise, go to step 26.
- i Click on the Add button shown in Figure 2-96. A file browser form opens.
 - ii Use the file browser form to choose a tablespace directory.
 - iii Repeat steps 24 i and ii to specify an additional tablespace directory, if required.

Figure 2-96 Data File Directories



25 Associate tablespaces with the directories specified in step 24.

- i Click on the Configure Tablespaces button. The tablespace configuration form opens, as shown in Figure 2-97.



Note — The lists of drives and tablespaces on the tablespace configuration form may differ from the lists shown in the figure below.

- ii Follow the instructions at the top of the form to associate tablespaces with directories, as required.
- iii Click on the OK button. The tablespace configuration form closes and the Data File Directories panel in Figure 2-96 reappears.
- iv Click on the Next button.

Figure 2-97 Configure Tablespaces

Select one drive and one or more Tablespaces from the left side. Add those associations to the right side using the 'Add associations from the left' button.
You can select at the same time on both TS tables at the left: Oracle Tablespaces and 5620 SAM Tablespaces

Directory Name	Type
C:\5620sam\samdb\tabspac	Default

Oracle Tablespaces

Tablespace Name

5620 SAM Tablespaces

Tablespace Name

- CURRENT_DATA_STRUCT_1
- CURRENT_DATA_STRUCT_2
- CURRENT_DATA_STRUCT_3
- CURRENT_DATA_STRUCT_4
- SAM_RELATIONS_1
- SAM_RELATIONS_2
- SAM_SYSTEM_1
- SAM_SYSTEM_2

Name	Drive
ALARMS	C:\5620sam\samdb\tabspac
ALARM_HISTORY	C:\5620sam\samdb\tabspac
CURRENT_DATA_STRUCT_1	C:\5620sam\samdb\tabspac
CURRENT_DATA_STRUCT_2	C:\5620sam\samdb\tabspac
CURRENT_DATA_STRUCT_3	C:\5620sam\samdb\tabspac
CURRENT_DATA_STRUCT_4	C:\5620sam\samdb\tabspac
INDX	C:\5620sam\samdb\tabspac
SAM_RELATIONS_1	C:\5620sam\samdb\tabspac
SAM_RELATIONS_2	C:\5620sam\samdb\tabspac
SAM_SYSTEM_1	C:\5620sam\samdb\tabspac
SAM_SYSTEM_2	C:\5620sam\samdb\tabspac
SAM_SYSTEM_3	C:\5620sam\samdb\tabspac
SAM_SYSTEM_4	C:\5620sam\samdb\tabspac
STATS_CURRENT	C:\5620sam\samdb\tabspac
STATS_HISTORY	C:\5620sam\samdb\tabspac
STATS_POLICY	C:\5620sam\samdb\tabspac
SYSAUX	C:\5620sam\samdb\tabspac
SYSTEM	C:\5620sam\samdb\tabspac
TEMP	C:\5620sam\samdb\tabspac
TIMS_SYSTEM	C:\5620sam\samdb\tabspac
TIMS_SYS_INDX	C:\5620sam\samdb\tabspac
UNDOTBS1	C:\5620sam\samdb\tabspac
USERS	C:\5620sam\samdb\tabspac

Add associations from the left

Remove Selected Associations

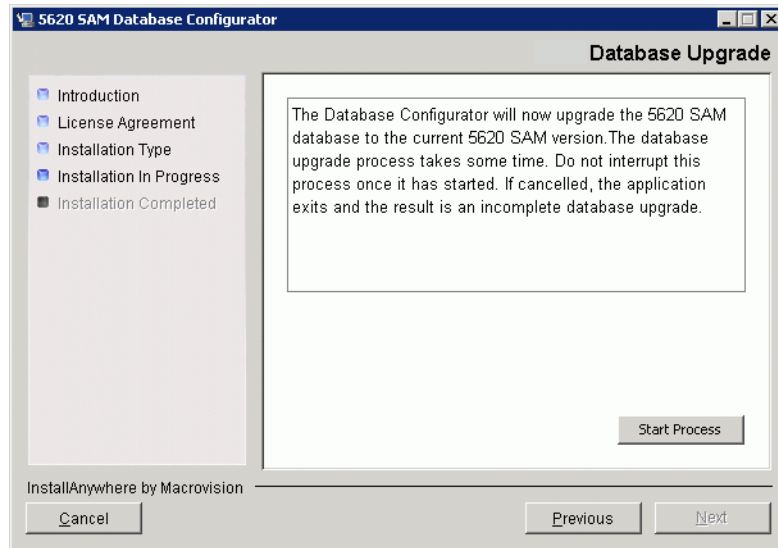
Set Default Associations

Select All

OK Cancel

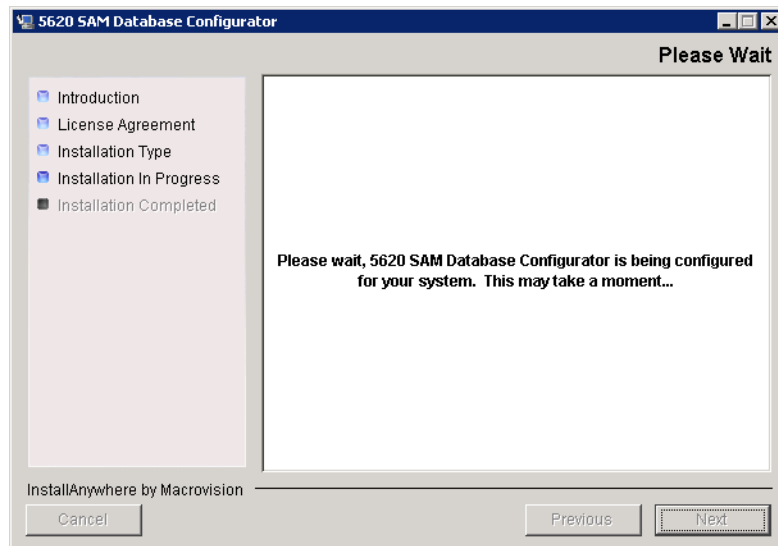
- 26 You are prompted to begin the database upgrade, as shown in Figure 2-98. A database upgrade can take one hour or more, depending on the tablespace configuration. Click on the Start Process button to begin the database upgrade.

Figure 2-98 Database Upgrade



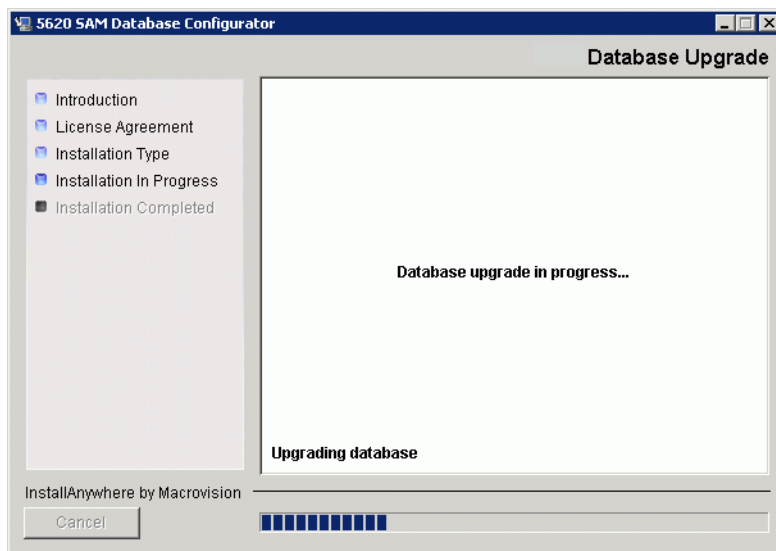
As shown in Figure 2-99, the installer prepares to upgrade the database software.

Figure 2-99 Please Wait



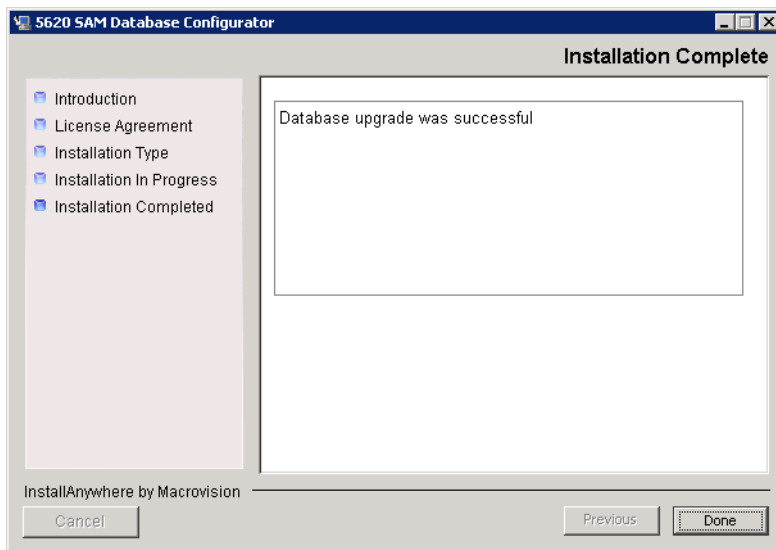
The next panel displays upgrade progress, as shown in Figure 2-100.

Figure 2-100 Database Upgrade



- 27 When the database upgrade is complete, as shown in Figure 2-101, click on the Done button to close the database installer.

Figure 2-101 Installation Complete



- 28 Reboot the 5620 SAM database station.

The 5620 SAM database starts automatically during Windows initialization.

Procedure 2-8 To upgrade a 5620 SAM main server on Windows

Perform this procedure to upgrade the 5620 SAM main server software on a Windows station. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



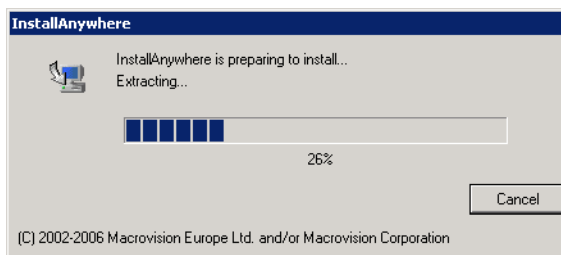
Note — You require local administrator user privileges to upgrade a 5620 SAM main server on Windows.

- 1 Navigate to the Windows directory on the new 5620 SAM software DVD-ROM.
- 2 Double-click on the `ServerInstall_SAM_8_0_revision.exe` file

where *revision* is the revision identifier, such as R1, R3, or another descriptor

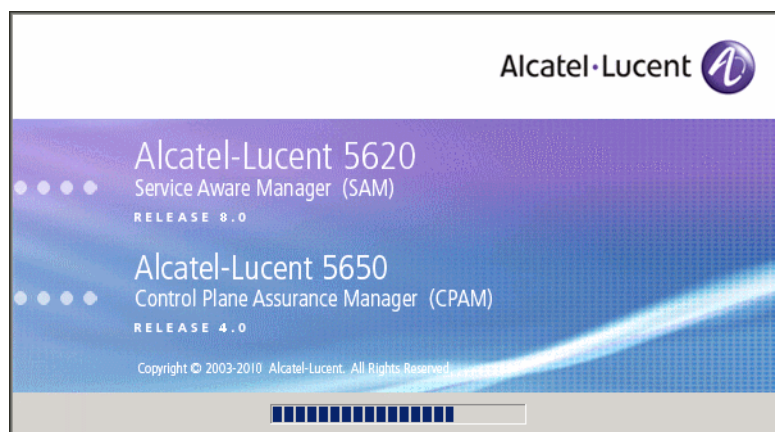
The installer prepares by extracting files, as shown in Figure 2-102.

Figure 2-102 Installer preparation



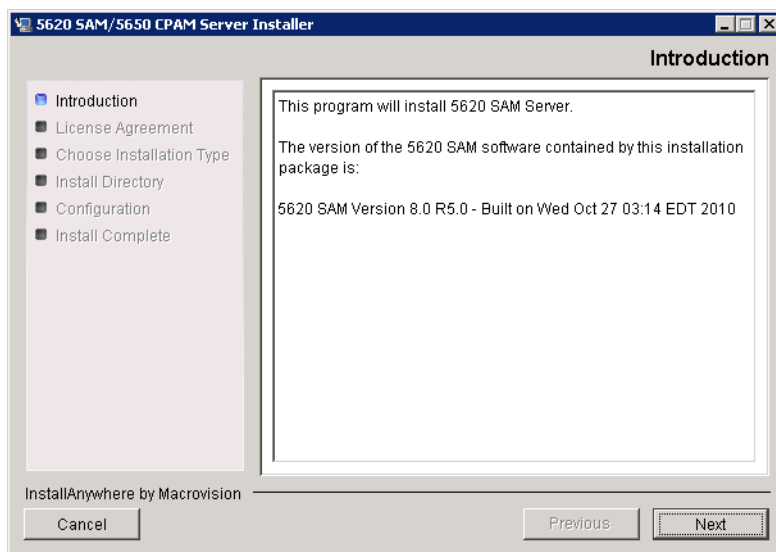
When the counter reaches 100%, the splash screen shown in Figure 2-103 opens.

Figure 2-103 5620 SAM installer



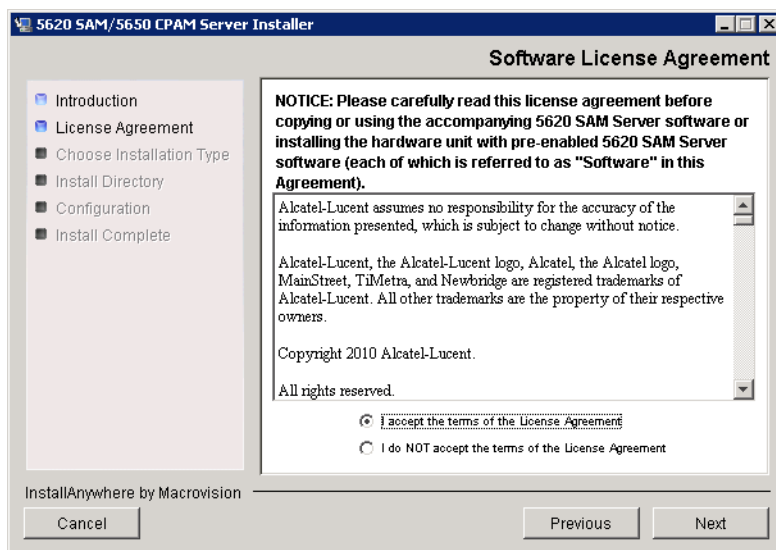
- 3 The 5620 SAM server installer opens, as shown in Figure 2-104. The left pane indicates upgrade progress. The right pane displays release information about the software. Click on the Next button.

Figure 2-104 Introduction



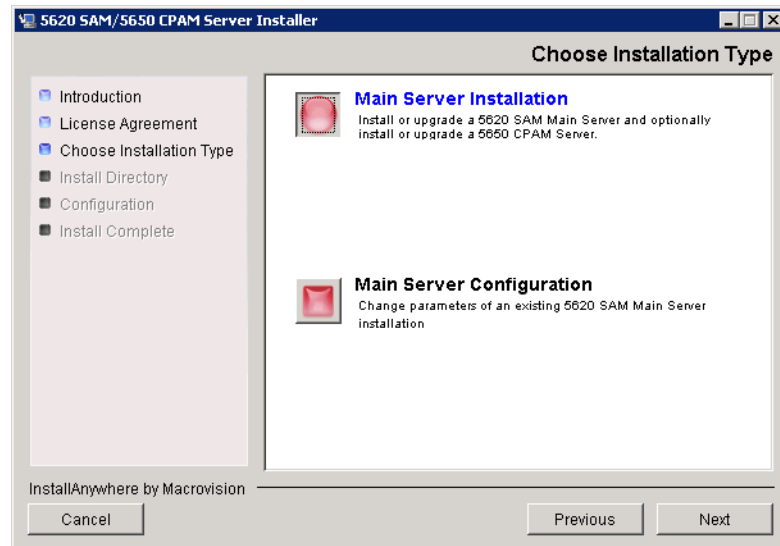
- 4 Review and accept the terms of the license agreement shown in Figure 2-105. Click on the Next button.

Figure 2-105 Software License Agreement



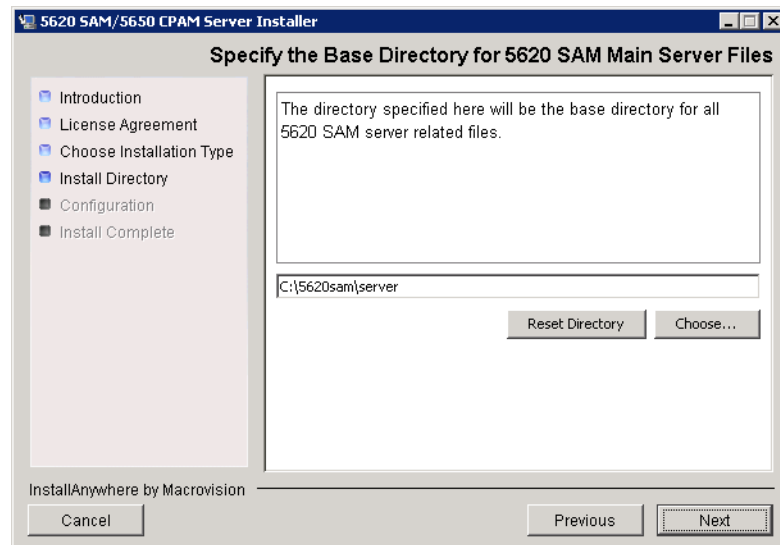
- 5 Select Main Server Installation and Configuration, as shown in Figure 2-106. Click on the Next button.

Figure 2-106 Choose Installation Type



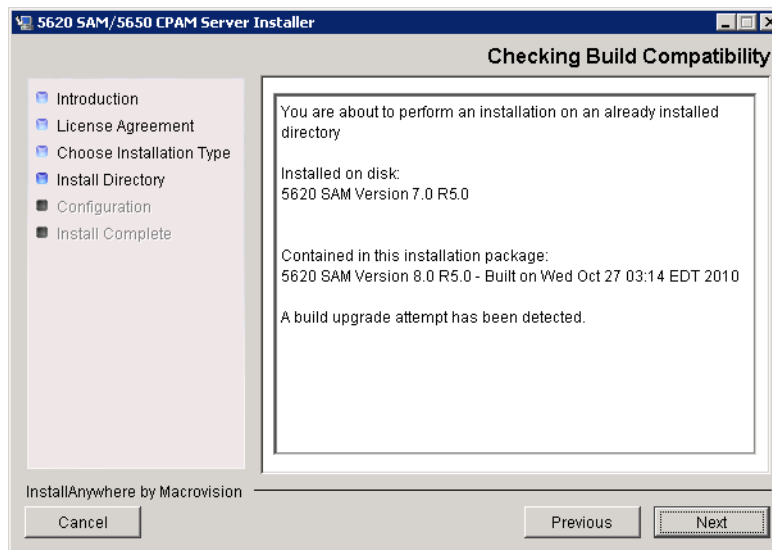
- 6 Specify the base directory in which the existing 5620 SAM main server software is installed (typically C:\5620sam\server), as shown in Figure 2-107. Click on the Next button.

Figure 2-107 Specify the Base Directory for 5620 SAM Main Server Files



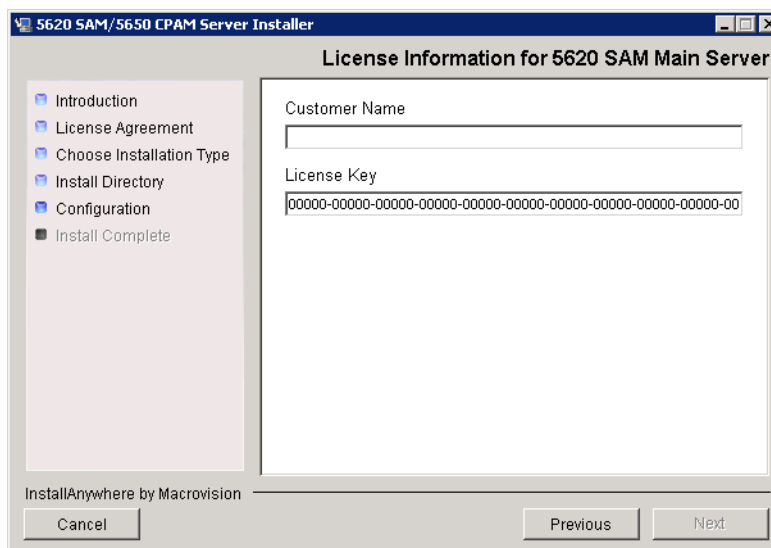
- 7 As shown in Figure 2-108, the installer indicates which release of 5620 SAM software is currently installed and the release to which it is to be upgraded. Verify the information. Click on the Next button.

Figure 2-108 Checking Build Compatibility



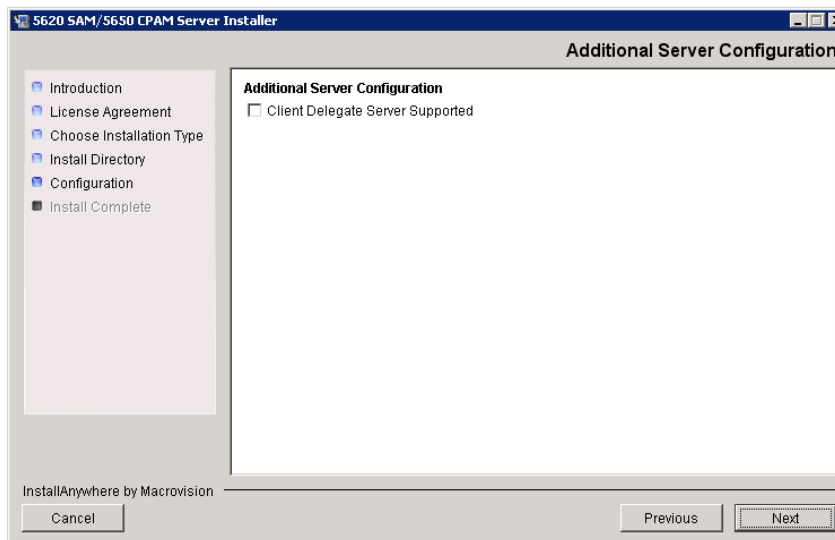
- 8 The 5620 SAM Installer displays the License Key specified during the existing installation. Enter the License Key information for the new 5620 SAM release exactly as received from Alcatel-Lucent. Include the dashes in the key, as shown in Figure 2-109. Click on the Next button.

Figure 2-109 License Information for 5620 SAM Main Server



- 9 Configure the Client Delegate Server Supported parameter shown in Figure 2-110, then click on the Next button.

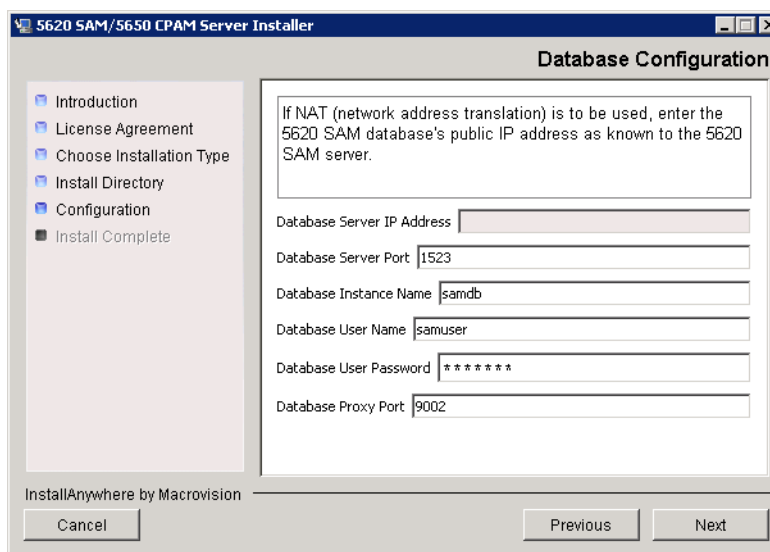
Figure 2-110 Additional Server Configuration



- 10 Configure the following parameters, shown in Figure 2-111, using the recorded values from the database installation. Click on the Next button.

- Database Server IP address
- Database Server Port (typically 1523)
- Database Instance Name (typically samdb)
- Database User Name (typically samuser)
- Database User Password
- Database Proxy Port (typically 9002)

Figure 2-111 Database Configuration



- 11 Depending on the existing configuration, the panel in Figure 2-112 is displayed. If required, configure the following parameters, then click on the Next button:
- Online Database Backup Interval (Hours) (typically 24)
 - Online Backup Destination (typically C:\5620sam\dbbackup)
 - Number Of Backup Sets (typically 3)



Note — The Online Backup Destination is a path on the file system of the database station specified in step 10.

Figure 2-112 Online Database Backup

5620 SAM/5650 CPAM Server Installer

Online Database Backup

Introduction
License Agreement
Choose Installation Type
Install Directory
Configuration
Install Complete

The database backup directory resides on the database workstation.
Please ensure that the specified directory exists on the database workstation and it is writable.

Online Backup Interval (Hours) 24

Online Backup Destination C:\5620sam\dbbackup

Number Of Backup Sets 3

InstallAnywhere by Macrovision

Cancel Previous Next

12 Configure the following parameters shown in Figure 2-113, then click on the Next button.

- Server Domain Name (typically 5620sam)
This is an identifier that uniquely identifies the 5620 SAM servers in a 5620 SAM cluster
- NAT (network address translation) Used
- Private IP (accessible only by this main server)
- Public IP (accessible to clients)
- EJB JNDI Server port (typically 1099)
- EJB JMS Server port (typically 8093)
- Enable 5670 RAM



Note — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 2-113.

Figure 2-113 Main Server Configuration for Clients

5620 SAM/5650 CPAM Server Installer

Main Server Configuration for Clients

Enter the network interface information that the GUI and OSS clients require to communicate with this 5620 SAM main server.

Server Domain Name: 5620sam

☒ NAT (network address translation) Used

Private IP (accessible only by this server): 192.168.200.111

Public IP (accessible to clients):

EJB JNDI Server port: 1099

EJB JMS Server port: 8093

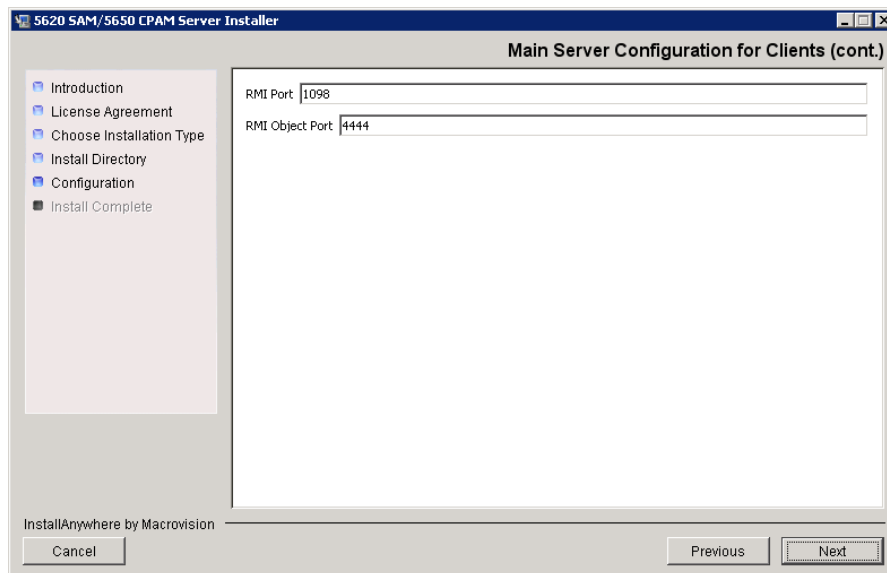
☐ Enable 5670 RAM

InstallAnywhere by Macrovision

Cancel Previous Next

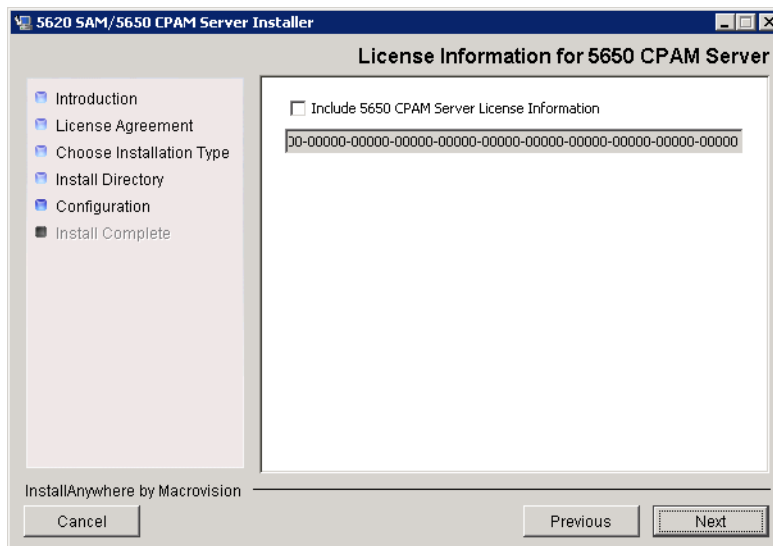
- 13 Configure the following parameters shown in Figure 2-114, then click on the Next button:
- RMI Port (typically 1098)
 - RMI Object Port (typically 4444)

Figure 2-114 Main Server Configuration for Clients (cont.)



- 14 Specify whether the 5620 SAM configuration includes a 5650 CPAM server, as shown in Figure 2-115. If it does, enter the 5650 CPAM license key provided by Alcatel-Lucent. Include the dashes in the key. Click on the Next button.

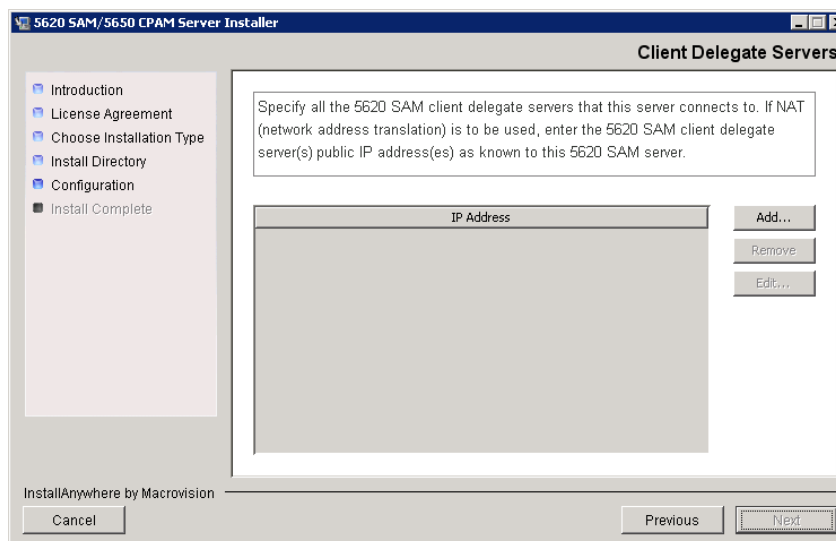
Figure 2-115 License Information for 5650 CPAM Server



- 15 The panel in Figure 2-116 is displayed if you select “Client Delegate Server Supported” in step 9. Otherwise, go to step 16.

Click on the Add button to specify the client delegate server IP addresses, as required. If NAT is used between the 5620 SAM main server and client delegate servers, specify the public IP address. Click on the Next button.

Figure 2-116 Client Delegate Servers



- 16 Perform one of the following to specify where the 5620 SAM user documentation is to be stored.

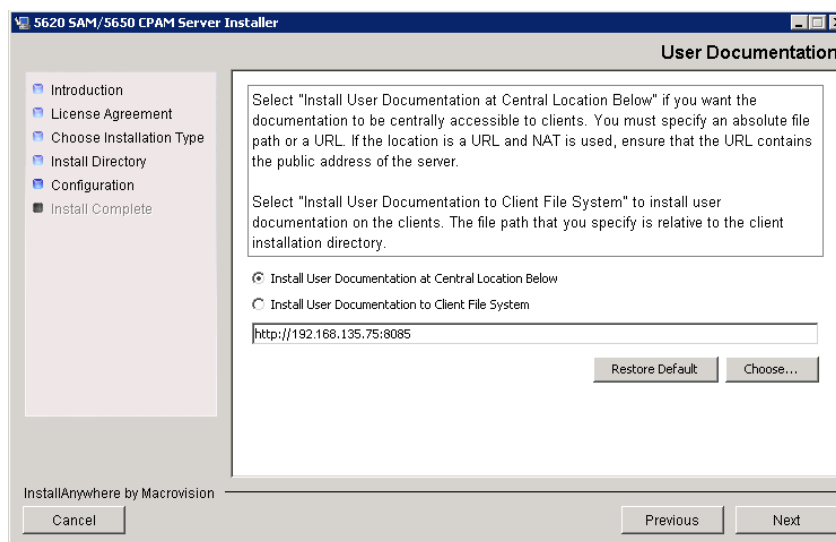
- a To store the documentation in a central location that is available to all clients, perform the following steps.
 - i Select the “Install User Documentation at Central Location Below” parameter, as shown in Figure 2-117.
 - ii To accept the default user documentation location, go to step 17.



Note — If NAT is used between the 5620 SAM main server and clients, you must update the default location using the public IP address of the main server, or the documentation is not accessible to clients.

- iii Specify a location for the 5620 SAM user documentation in the field below the parameters.
- iv Copy the contents of the User_Documentation directory on the 5620 SAM installation DVD-ROM to the location specified in step iii.
- v Click on the Next button. A dialog box appears.
- vi Click on the OK button.

Figure 2-117 User Documentation



- b To store a copy of the documentation on the client file system, perform the following steps.
 - i Select the “Install User Documentation to Client File System” parameter shown in Figure 2-117.
 - ii Specify a file path relative to the 5620 SAM client installation directory. The path must not contain a leading backslash.

For example, if the installation directory is C:\5620sam\client and you specify Documents as the location, the documentation is installed in the following directory:

C:\5620sam\client\Documents



Note — The 5620 SAM client uninstaller cannot remove the documentation unless it is installed below the nms directory in the 5620 SAM client installation directory, for example, C:\5620sam\client\nms\Documents.

17 Click on the Next button.

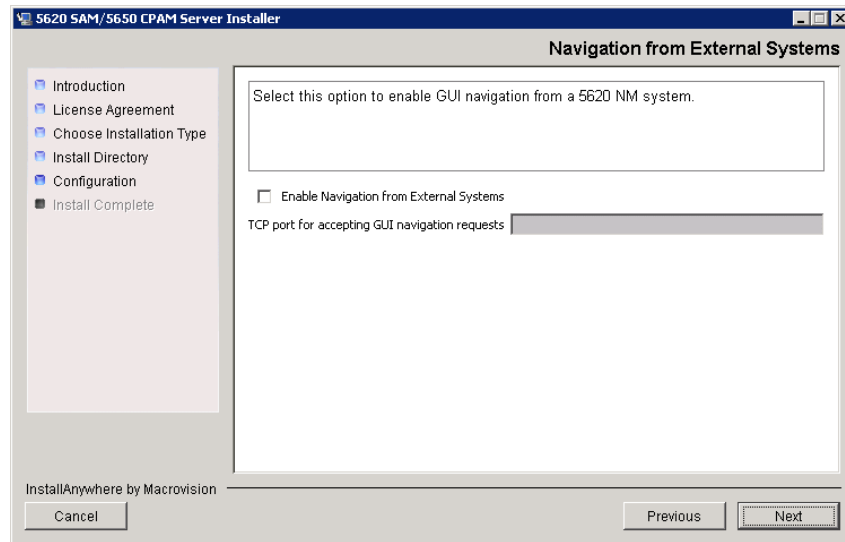
- 18 Configure the following parameters shown in Figure 2-118, then click on the Next button:
- NAT (network address translation) Used
Select this parameter only if NAT is to be used between the 5620 SAM server and the managed network.
 - SNMP Trap Receiving IPv4 Address (typically the 5620 SAM main server IP address)
 - SNMP Trap Receiving Port (typically 162)
 - Trap Log Id (typically 98)

Figure 2-118 SNMP Configuration

The screenshot shows the 'SNMP Configuration' window of the '5620 SAM/5650 CPAM Server Installer'. On the left is a navigation pane with the following items: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (highlighted), and Install Complete. The main area contains a text box with instructions: 'If NAT (network address translation) is to be used, enter the 5620 SAM main server's public IP address as known to the devices within the managed network.' Below this is a checkbox for 'NAT (network address translation) Used', which is currently unchecked. There are three input fields: 'SNMP Trap Receiving IPv4 Address' with the value '192.168.200.111', 'SNMP Trap Receiving Port' with the value '162', and 'Trap Log Id' with the value '98'. At the bottom, there is a footer 'InstallAnywhere by Macrovision' and three buttons: 'Cancel', 'Previous', and 'Next'.

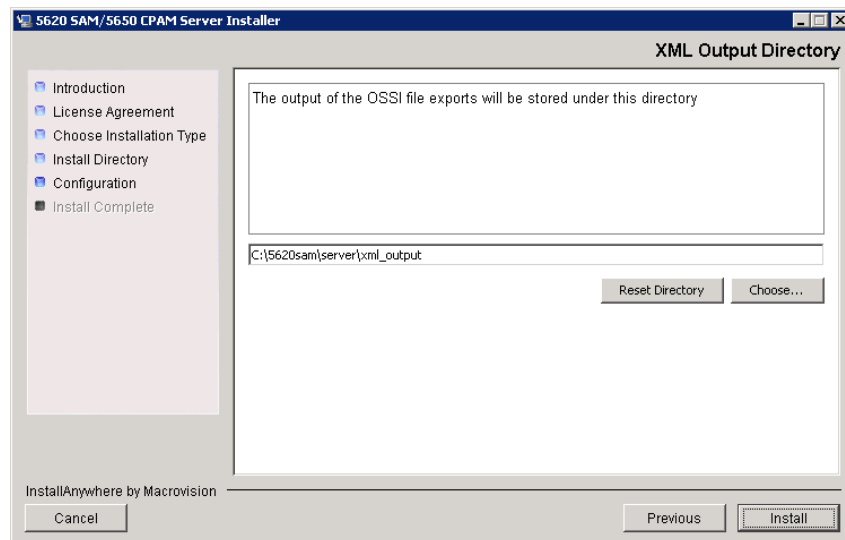
- 19 If you require 5620 SAM client navigation from a 5620 NM system, select the “Enable Navigation from External Systems” parameter shown in Figure 2-119 and specify the TCP port that the client is to use for accepting navigation requests. Click on the Next button.

Figure 2-119 Navigation from External Systems



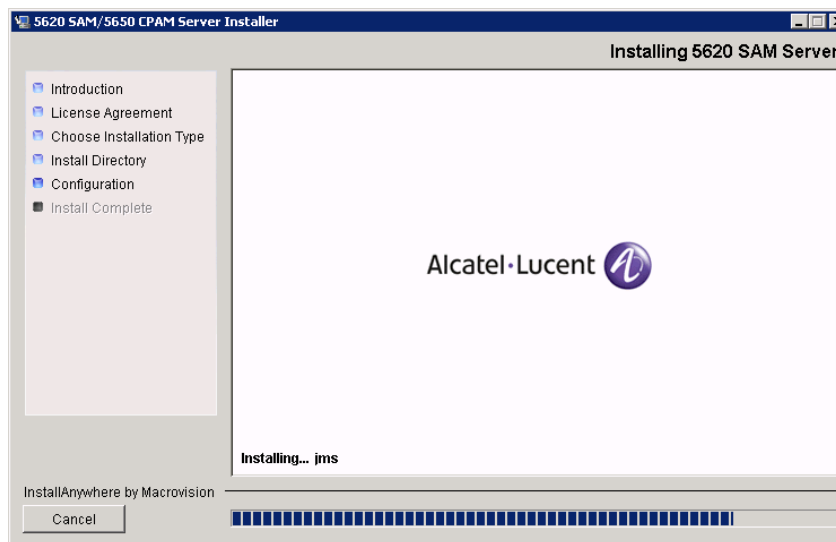
- 20 Specify a directory for OSS XML output (typically C:\5620sam\server\xml_output), as shown in Figure 2-120. Click on the Install button to begin the main server upgrade.

Figure 2-120 XML Output Directory



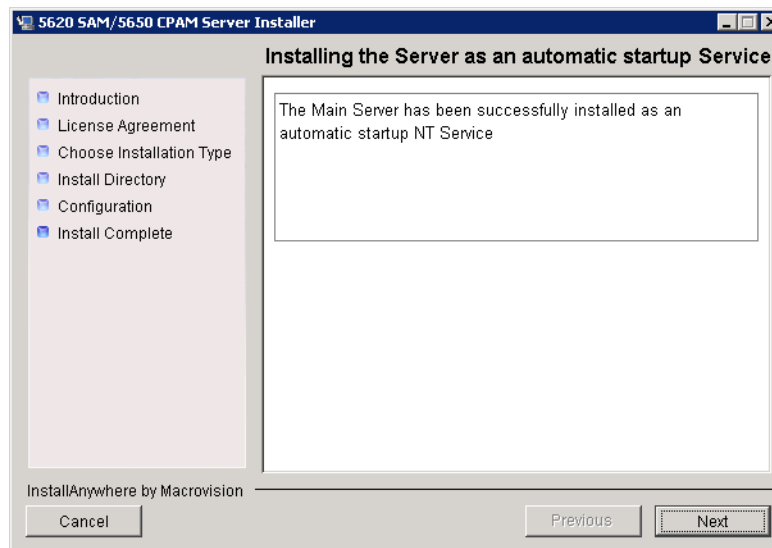
The next panel displays upgrade progress, as shown in Figure 2-121.

Figure 2-121 Installing 5620 SAM Server



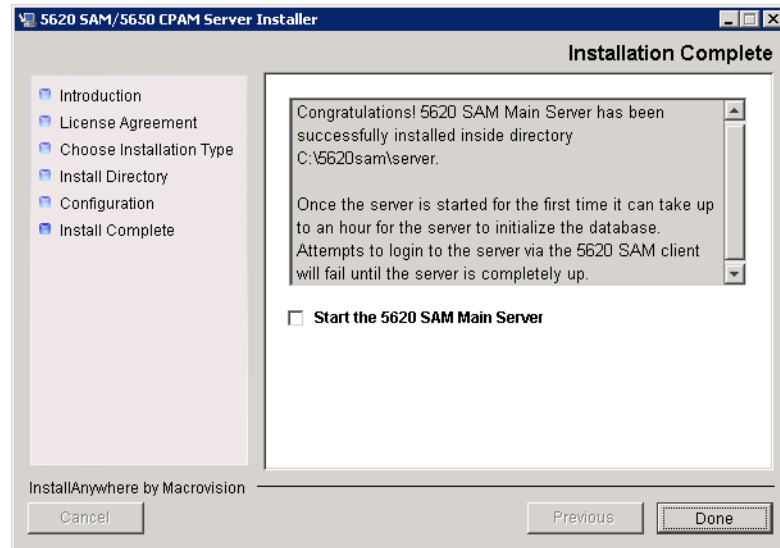
- 21 As shown in Figure 2-122, the 5620 SAM main server is installed as a Windows service. Click on the Next button.

Figure 2-122 Installing the Server as an automatic startup Service



- 22 When the main server upgrade is complete, as shown in Figure 2-123, configure the “Start the 5620 SAM Main Server” parameter to specify whether you want the main server to start immediately after the upgrade.

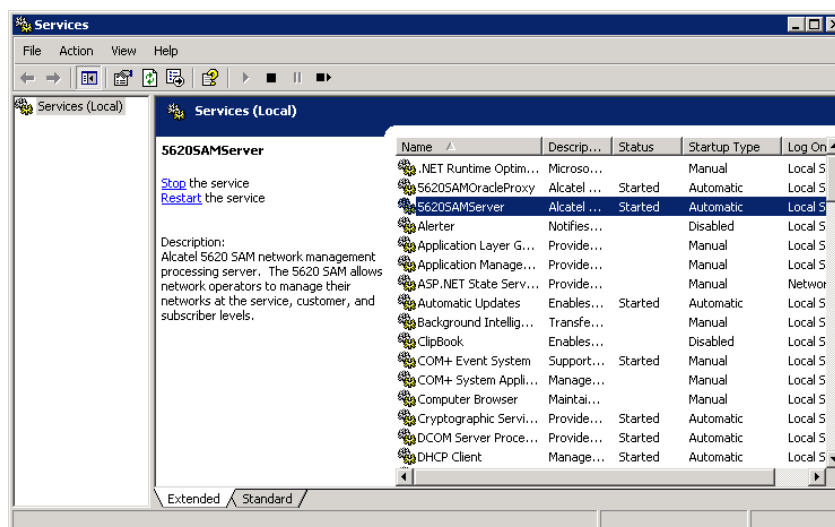
Figure 2-123 Installation Complete



- 23 Click on the Done button to close the server installer. If you specified that the main server is to start after the upgrade, the main server starts. Initial main server startup can take twenty minutes or more.
- 24 If you specified not to start the server immediately after the upgrade, perform the following steps later to start the 5620 SAM main server manually.
- i Log in to the main server station as a user with local administrator privileges.
 - ii Click on Start→Settings→Control Panel→Administrative Tools→Services. The Services window opens.

- iii Select the 5620SAMServer entry, as shown in Figure 2-124, and click on Start the service. The 5620 SAM main server starts. Initial main server startup can take twenty minutes or more.

Figure 2-124 Services - 5620SAMServer service



Procedure 2-9 To upgrade a 5620 SAM single-user client on Windows

This procedure describes how to upgrade the 5620 SAM single-user client software on a Windows station.

A 5620 SAM single-user client attempts to upgrade itself automatically when the client and the main server to which it connects are at different 5620 SAM software releases.



Note 1 — The 5620 SAM main server to which a 5620 SAM client connects must be upgraded before you can upgrade the client.

Note 2 — The user that upgrades the 5620 SAM single-user client software must be the user that installed the client software.

- 1 Close the 5620 SAM client GUI, if it is open.
 - i Choose Application→Exit from the 5620 SAM main menu. A dialog box appears.
 - ii Click on the Yes button. The client GUI closes.

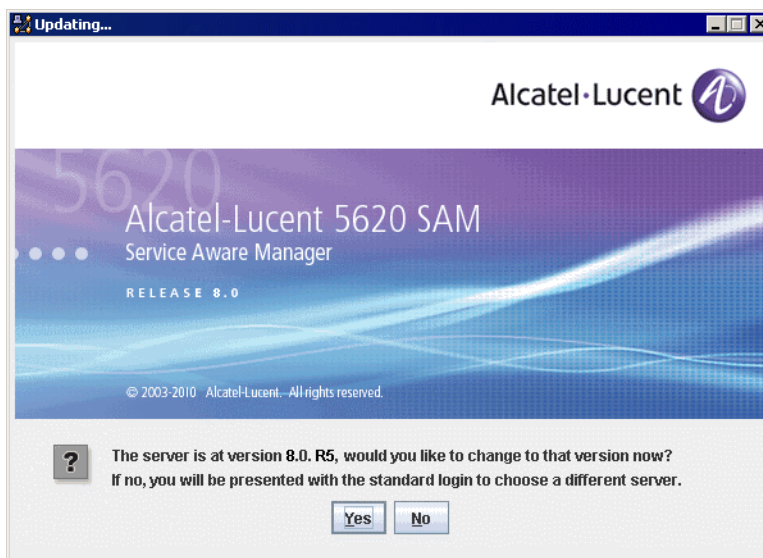
- 2 Perform one of the following.
 - a Double-click on the 5620 SAM Client App desktop icon.
 - b Use a web browser on the client station. Perform the following steps.
 - i Use the browser to open the following page on the 5620 SAM main server:

<http://server:8085/client>

where *server* is the IP address or hostname of the 5620 SAM main server
 - ii Click on the “Uninstall 5620 SAM Client” link.

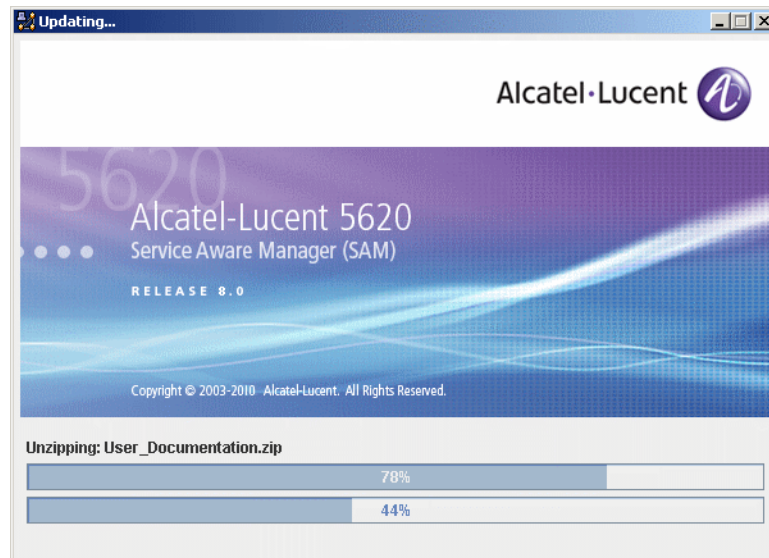
The 5620 SAM auto-client update utility opens, detects the new client software on the 5620 SAM main server, and displays the panel shown in Figure 2-125.

Figure 2-125 Upgrade prompt



- 3 Click on the Yes button to begin the 5620 SAM client software upgrade. As shown in Figure 2-126, the next panel uses separate bars to indicate the overall and current task progress.

Figure 2-126 Installation progress



When the upgrade is complete, the auto-client update utility closes and the 5620 SAM client login form is displayed.

- 4 Log in to the 5620 SAM client GUI.
-

2.7 Workflow for 5620 SAM uninstallation on Windows

The following is the sequence of high-level actions required to uninstall a 5620 SAM system on a Windows platform.

- 1 Uninstall the 5620 SAM client software.
 - a For each single-user client on a Windows station, perform Procedure 2-10 or 2-11.
 - b For each single-user client or client delegate server on a Solaris station, perform Procedure 7-1 or 7-2.
- 2 Perform Procedure 2-12 to uninstall the main server software.
- 3 Perform Procedure 2-13 to uninstall the database software.

2.8 5620 SAM uninstallation on Windows procedures

This section describes how to remove the software components of a 5620 SAM system on Windows.

Procedures 2-10 and 2-11 describe how to uninstall a 5620 SAM single-user client. Procedure 2-12 describes how to uninstall the 5620 SAM main server. Procedure 2-13 describes how to uninstall the 5620 SAM database.

Procedure 2-10 To uninstall the 5620 SAM single-user client software on Windows using a web browser

Perform this procedure to remove the 5620 SAM single-user client software from a Windows station using a web browser.



Note — The Windows user that uninstalls the 5620 SAM client software must be the user that installed the 5620 SAM client software.

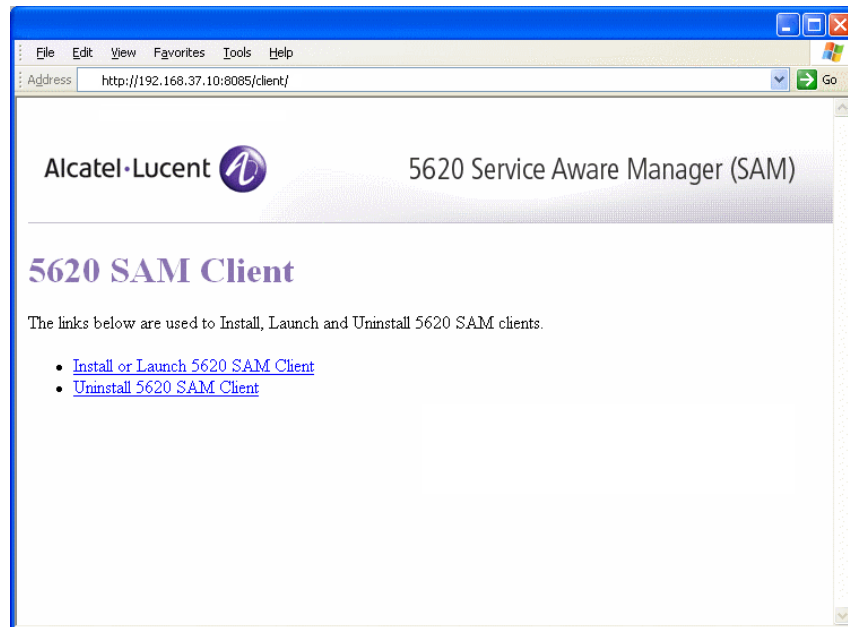
- 1 Log in to the 5620 SAM single-user client station as the user that installed the 5620 SAM client software.
- 2 Close the 5620 SAM client GUI, if it is open, by choosing File→Exit from the 5620 SAM main menu.
- 3 Use a web browser on the client station to open the following page on the 5620 SAM main server:

<http://server:8085/client>

where *server* is the IP address or hostname of the 5620 SAM main server

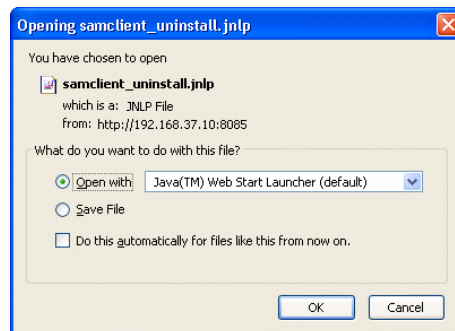
The page shown in Figure 2-127 is displayed.

Figure 2-127 5620 SAM client page



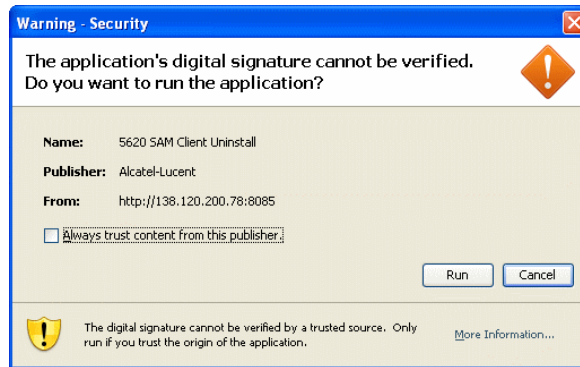
- 4 Click on the "Uninstall 5620 SAM Client" link. The form shown in Figure 2-128 is displayed. Ensure that "Open with" is selected, then click on the OK button.

Figure 2-128 Opening samclient_uninstall.jnlp



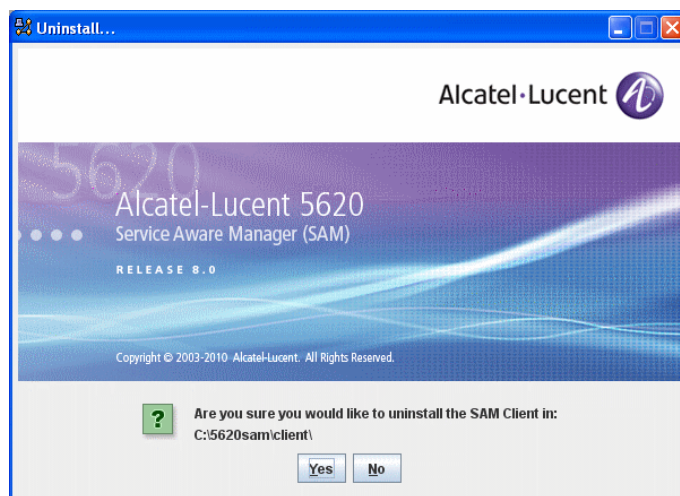
- 5 If a security warning like the one shown in Figure 2-129 is displayed, click on the Run button.

Figure 2-129 Warning - Security



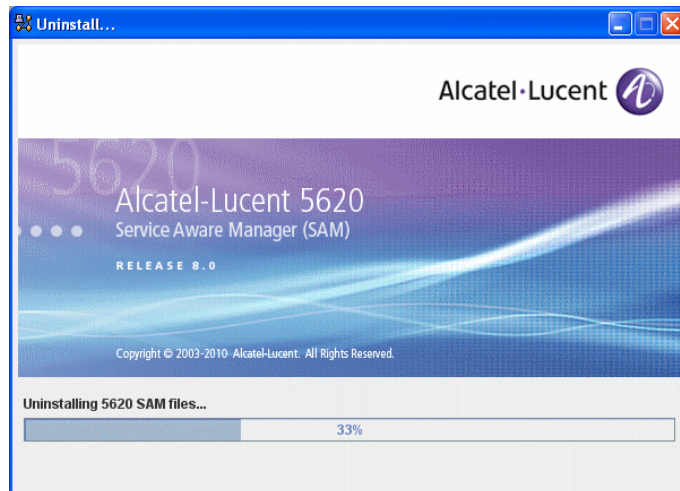
- 6 The client uninstaller opens, as shown in Figure 2-130. Click on the Yes button to begin the client uninstallation.

Figure 2-130 Uninstall...



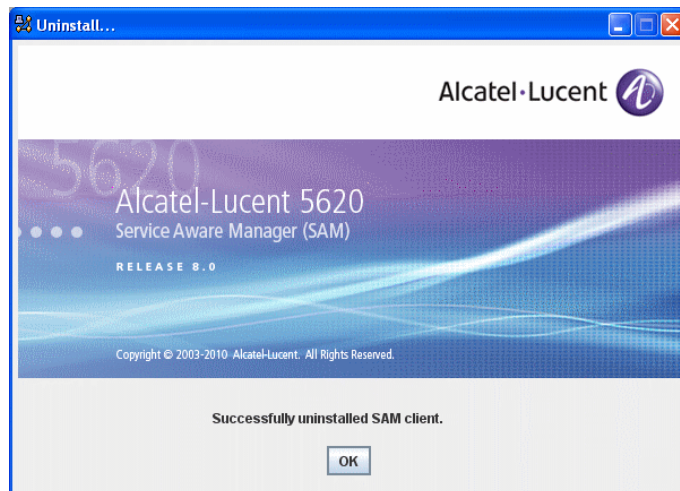
The panel Figure 2-131 opens. The panel displays the uninstallation progress.

Figure 2-131 Uninstall...



- 7 The client uninstallation is complete when the panel in Figure 2-132 is displayed. Click on the OK button to close the uninstaller.

Figure 2-132 Uninstall...



Procedure 2-11 To uninstall the 5620 SAM single-user client software on Windows using Add/Remove Programs

Perform this procedure to remove the 5620 SAM single-user client software from a Windows station using the Windows Add/Remove Programs applet.

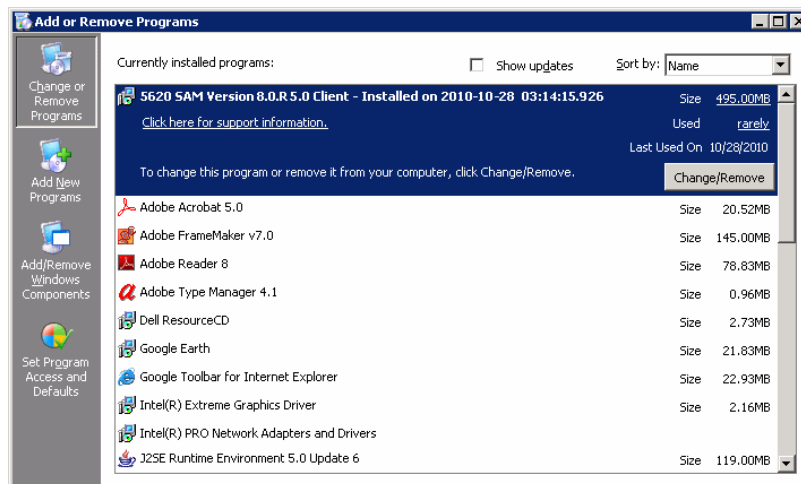


Note — The Windows user that uninstalls the 5620 SAM client software must be the user that installed the 5620 SAM client software.

- 1 Log in to the 5620 SAM single-user client station as the user that installed the 5620 SAM client software.
- 2 Close the 5620 SAM client GUI, if it is open, by choosing File→Exit from the 5620 SAM main menu.
- 3 Perform one of the following, based on the Windows release.
 - a Perform the following steps for Windows Vista.
 - i Click on Start→Control Panel. The Control Panel window opens.
 - ii Under the Programs category, click on Uninstall a Program. The Uninstall or change a program window opens.
 - iii Right-click on 5620 SAM Client and select Uninstall/Change.
 - iv If a security dialog box appears, click on the Continue button.
 - b Perform the following steps for a Windows release other than Vista.
 - i Click on Start→Settings→Control Panel. The Control Panel window opens.
 - ii Double-click on Add or Remove Programs. The Add or Remove Programs window opens.

- iii Select 5620 SAM Client, as shown in Figure 2-133. Click on the Change/Remove button to begin the uninstallation.

Figure 2-133 Add or Remove Programs - client



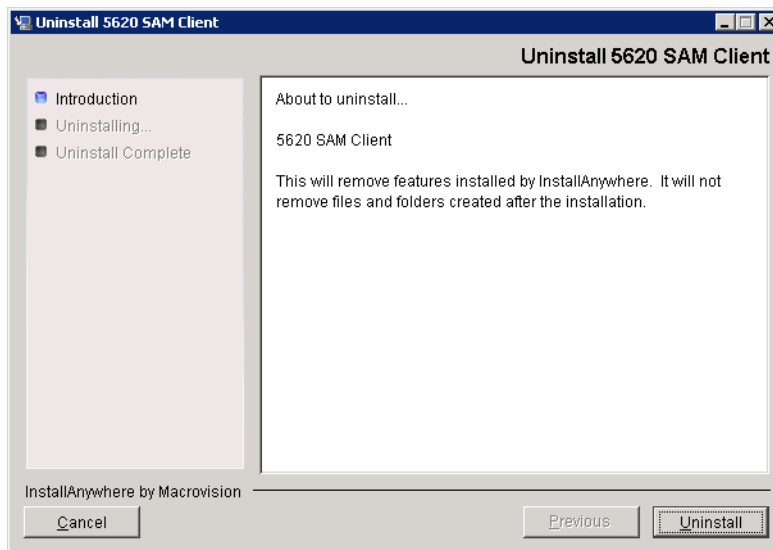
The splash screen shown in Figure 2-134 opens.

Figure 2-134 5620 SAM uninstaller



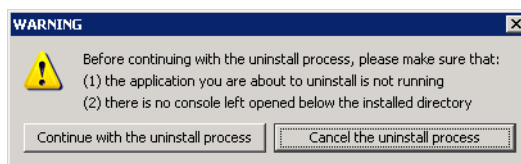
- 4 You are notified that the utility uninstalls the specified application but does not remove any files or directories added after the installation, as shown in Figure 2-135. Click on the Uninstall button to begin the uninstallation.

Figure 2-135 Uninstall 5620 SAM Client



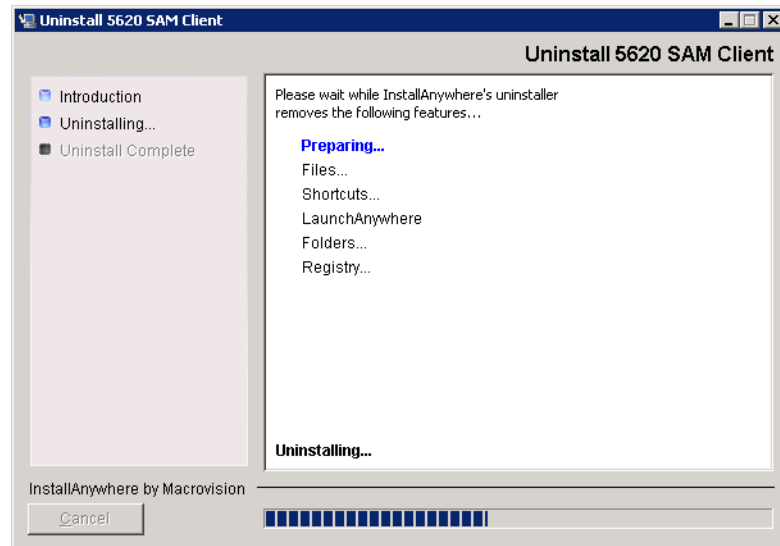
- 5 As shown in Figure 2-136, a warning appears. Ensure that the conditions are true, then click on the “Continue with the uninstall process” button.

Figure 2-136 Warning



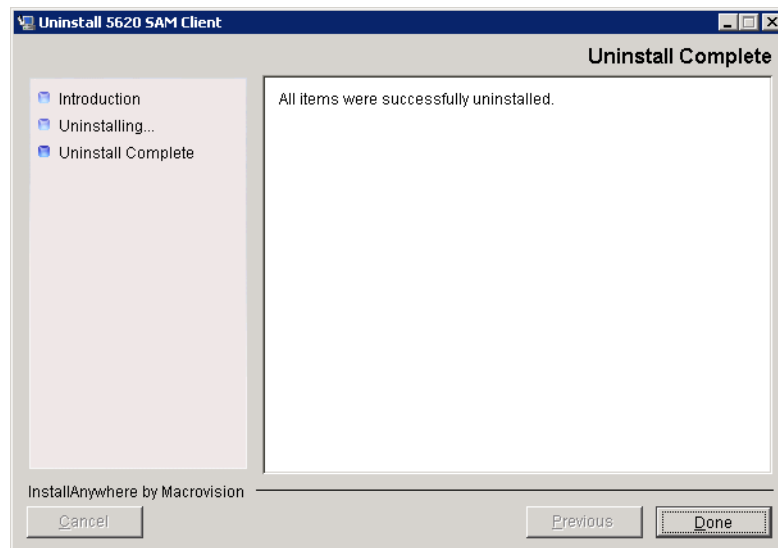
- 6 As shown in Figure 2-137, the uninstallation process removes the 5620 SAM client software.

Figure 2-137 Uninstall 5620 SAM Client



- 7 When the 5620 SAM client uninstallation is complete, as shown in Figure 2-138, click on the Done button to close the client uninstaller.

Figure 2-138 Uninstall Complete



- 8 Close the Add/Remove Programs window or the Uninstall or change a program window, as appropriate.
 - 9 Close the Control Panel window.
-

Procedure 2-12 To uninstall the 5620 SAM main server software on Windows

Perform this procedure to remove the 5620 SAM main server software from a Windows station.



Note — You require local administrator user privileges on the main server station to uninstall the main server software.

- 1 Perform the following steps to close the active 5620 SAM client sessions.
 - i Open a 5620 SAM client session to the main server using an account with security management privileges, such as admin.
 - ii Click on Administration→Security→5620 SAM User Security in the 5620 SAM main menu. The 5620 SAM User Security - Security Management (Edit) form opens with the General tab displayed.
 - iii Click on the Sessions tab button.
 - iv Click on the Search button. The form displays a list of the active 5620 SAM client sessions.
 - v Using the IP addresses in the Client IP column, identify the GUI or OSS clients that are currently logged in.

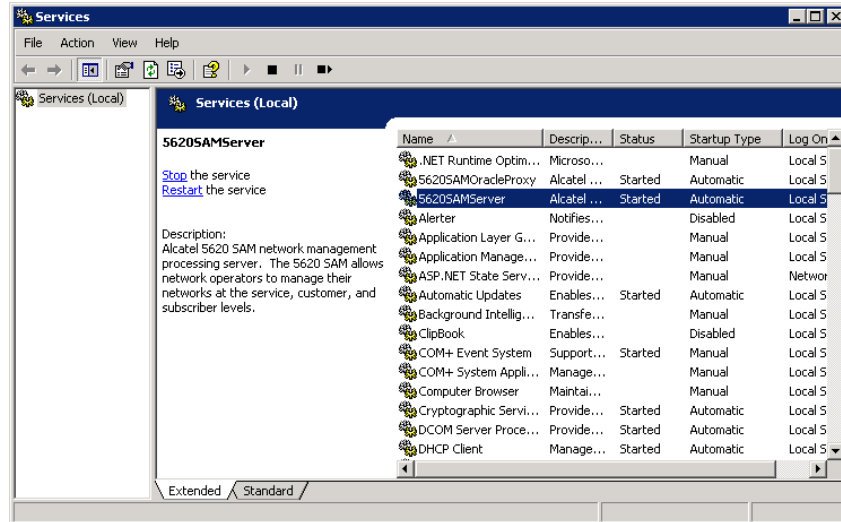


Note — One of the listed sessions is the session that you are using to list the client sessions.

- vi Close each listed 5620 SAM client application session, except for the one you are using, by choosing File→Exit from the 5620 SAM main menu on each client station.
 - vii Click on the Search button again to refresh the list of open client sessions.
 - viii Confirm that only one client session remains open. This is the client session that you are using.
 - ix Close the 5620 SAM client that you are using by choosing File→Exit from the 5620 SAM main menu.
- 2 Log in to the 5620 SAM main server station using an account with local administrator privileges.
- 3 Perform the following steps on the 5620 SAM main server station to stop the 5620 SAM server service.
 - i Click on Start→Settings→Control Panel→Administrative Tools→Services. The Services window opens.

- ii Select the 5620SAMServer entry, as shown in Figure 2-139. Click on the Stop the service link.

Figure 2-139 Services - 5620SAMServer service



- 4 Perform the following steps to verify that the 5620 SAM main server is stopped.
 - i Open a console window.
 - ii Enter the following at the CLI prompt to change to the main server binary directory:


```
cd path\nms\bin ↵
```

 where *path* is the 5620 SAM main server installation location, typically C:\5620sam\server
 - iii Enter the following at the CLI prompt:


```
nmserver.bat appserver_status ↵
```

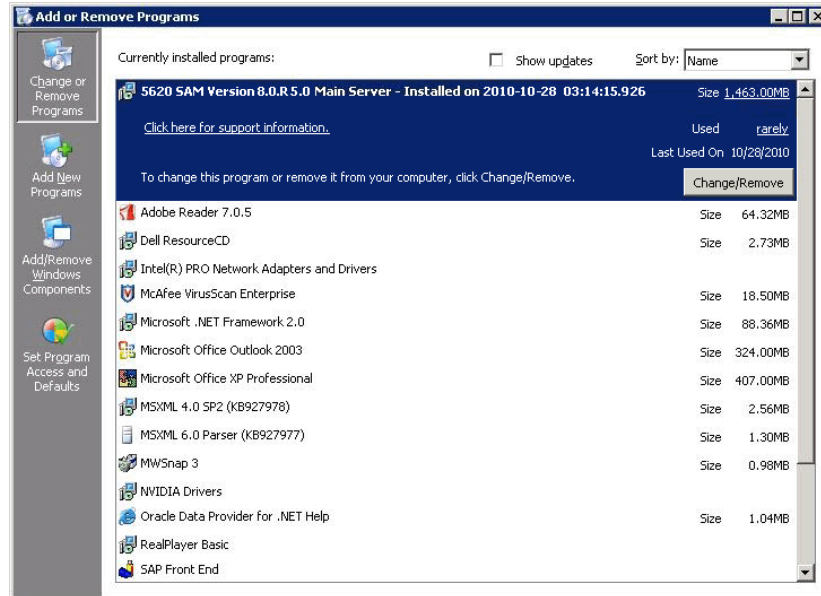
 The command displays a status message.
 - iv The 5620 SAM main server is stopped when the command displays the following status message:


```
Application Server is stopped
```

 If the command displays a different message, wait 5 m and repeat step 4 iii. Do not proceed to the next step until the main server is stopped.
 - v Close the console window.
- 5 Close the Services window.
- 6 Click on Start→Settings→Control Panel. The Control Panel window opens.
- 7 Double-click on Add or Remove Programs. The Add or Remove Programs window opens.

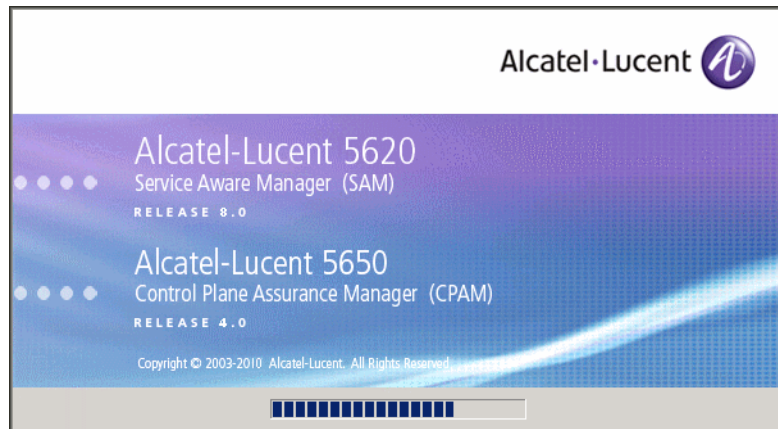
- 8 Select 5620 SAM Server, as shown in Figure 2-140. Click on the Change/Remove button to begin uninstallation.

Figure 2-140 Add or Remove Programs - main server



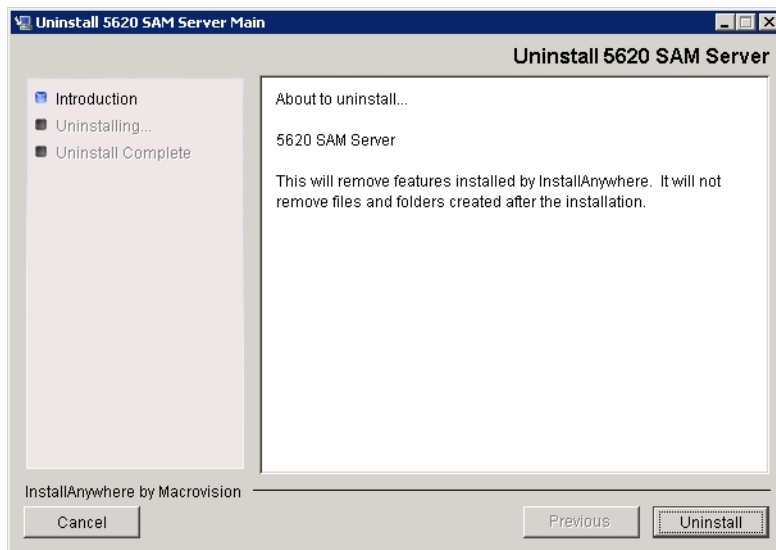
The splash screen shown in Figure 2-141 opens.

Figure 2-141 5620 SAM uninstaller



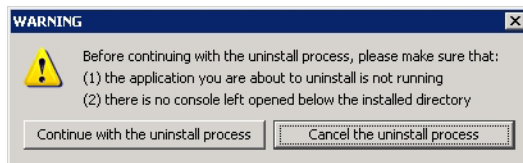
- 9 You are notified that the utility uninstalls the specified application but does not remove any files or directories added after the installation, as shown in Figure 2-142. Click on the Uninstall button to begin the uninstallation.

Figure 2-142 Uninstall 5620 SAM Server



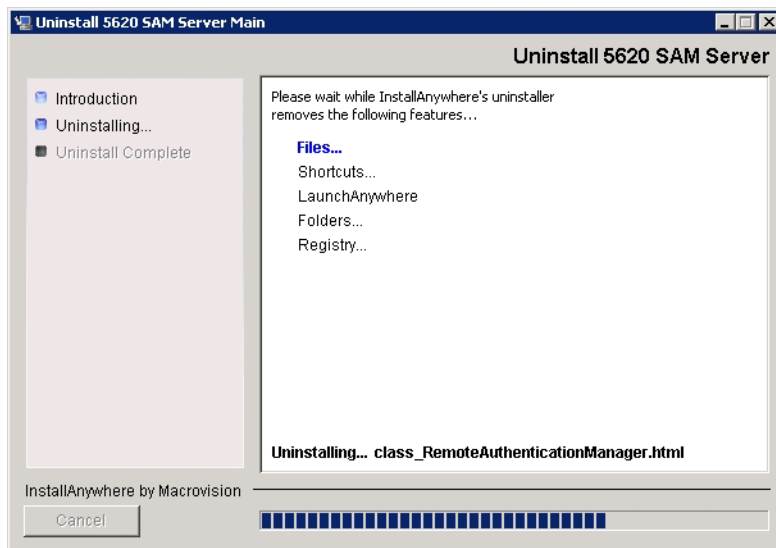
- 10 As shown in Figure 2-143, a warning appears. Ensure that the conditions are true, then click on the “Continue with the uninstall process” button.

Figure 2-143 Warning



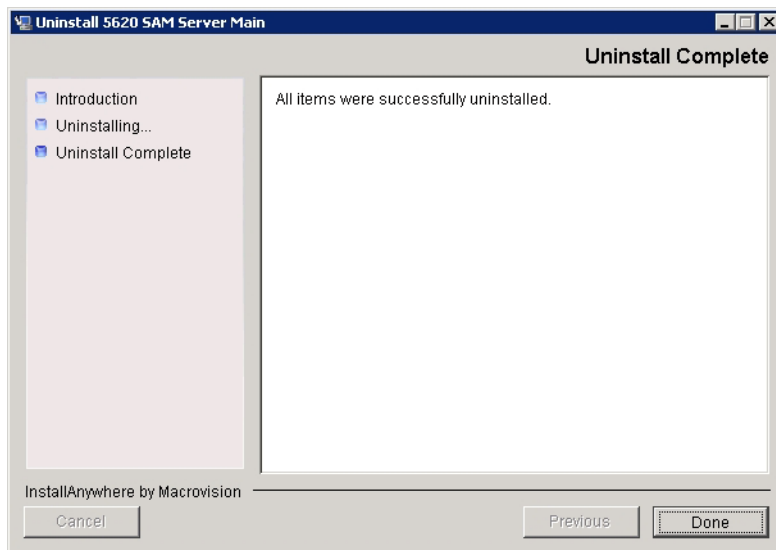
As shown in Figure 2-144, the uninstallation process removes the 5620 SAM main server software.

Figure 2-144 Uninstall 5620 SAM Server



- 11 When the main server uninstallation is complete, as shown in Figure 2-145, click on the Done button to close the main server uninstaller.

Figure 2-145 Uninstall Complete



- 12 Close the Add/Remove Programs window.
- 13 Close the Control Panel Window.

Procedure 2-13 To uninstall the 5620 SAM database software on Windows

Perform this procedure to remove the 5620 SAM database software from a Windows station.



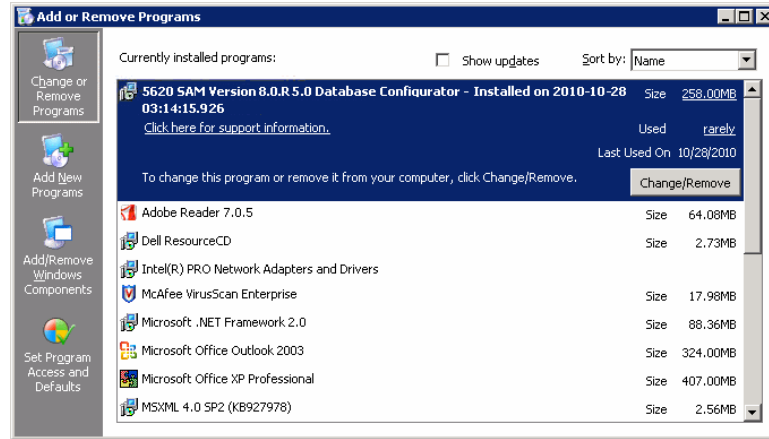
Note 1 — Before you uninstall the 5620 SAM database software, you must uninstall the 5620 SAM main server software. See Procedure [2-12](#) for more information.

Note 2 — You require local administrator user privileges on the database station to uninstall the database software.

- 1 Perform the following steps on the 5620 SAM database station to stop the database services.
 - i Click on Start→Settings→Control Panel→Administrative Tools→Services. The Services window opens.
 - ii Select the OracleService`dbname` entry
where `dbname` is the name of the 5620 SAM database instance, typically `samdb`
 - iii Click on the Stop the service link.
 - iv Click on the OK button to acknowledge that stopping the OracleService`dbname` service also stops the 5620SAMOracleProxy service. The 5620 SAM database services are stopped.
- 2 Close the Services window.
- 3 Click on Start→Settings→Control Panel. The Control Panel window opens.
- 4 Double-click on Add or Remove Programs. The Add or Remove Programs window opens.

- 5 Select 5620 SAM Database Configurator, as shown in Figure 2-146. Click on the Change/Remove button to begin uninstallation.

Figure 2-146 Add or Remove Programs - database



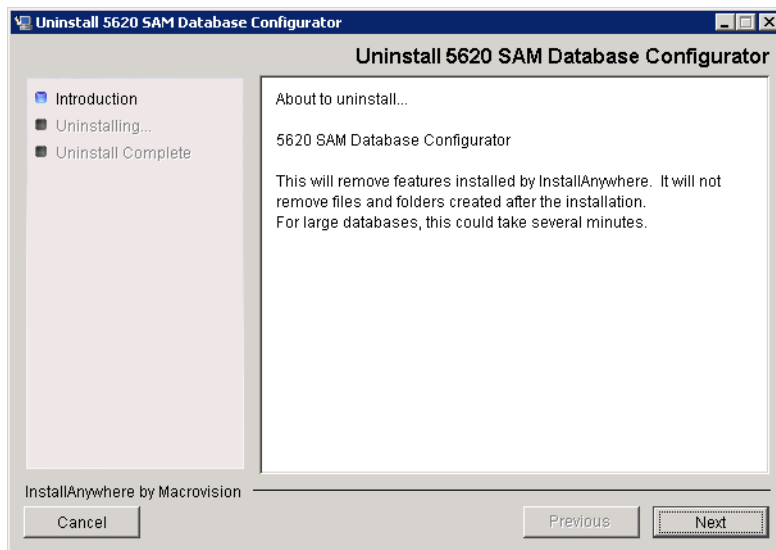
The splash screen shown in Figure 2-147 opens.

Figure 2-147 5620 SAM uninstaller



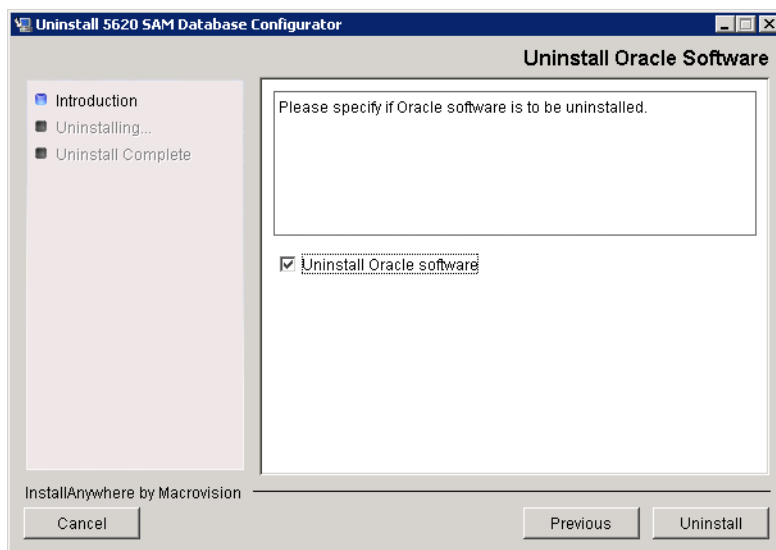
- 6 You are notified that the utility uninstalls the specified application but does not remove any files or directories added after the installation, as shown in Figure 2-148. Click on the Next button.

Figure 2-148 Uninstall 5620 SAM Database Configurator



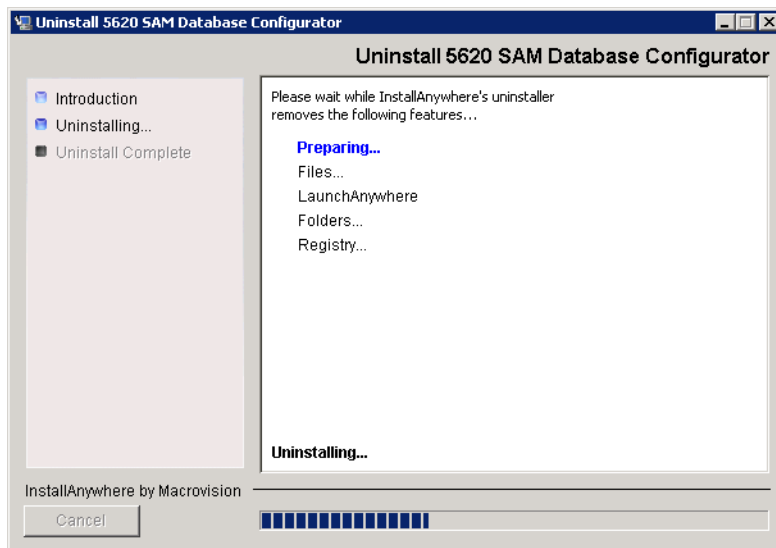
- 7 Select Uninstall Oracle software, as shown in Figure 2-149. Click on the Uninstall button to begin the uninstallation.

Figure 2-149 Uninstall Oracle Software



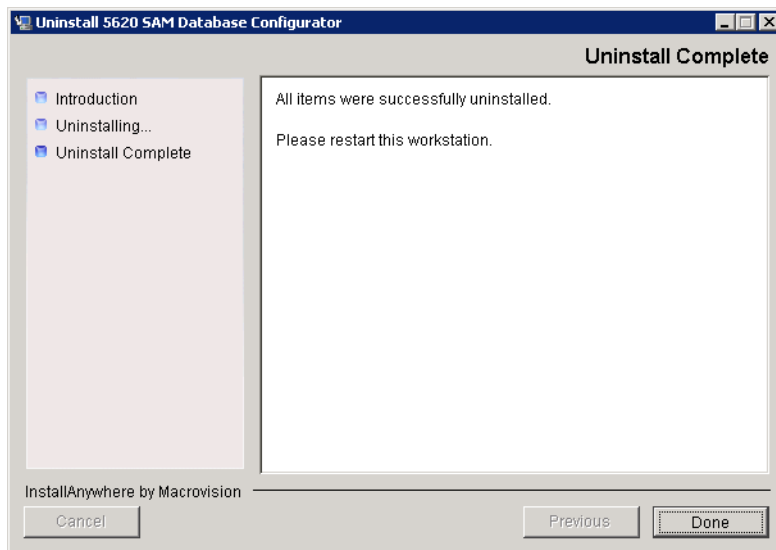
As shown in Figure 2-150, the uninstallation process removes the 5620 SAM database software.

Figure 2-150 Uninstall 5620 SAM Database Configurator



- 8 When the database uninstallation is complete, as shown in Figure 2-151, click on the Done button to close the database uninstaller.

Figure 2-151 Uninstall Complete



- 9 Close the Add/Remove Programs window.
- 10 Close the Control Panel window.

5620 SAM for Solaris

- 3 – 5620 SAM installation on Solaris
- 4 – 5620 SAM upgrade on Solaris
- 5 – 5620 SAM conversion to redundancy
- 6 – 5620 SAM platform migration
- 7 – 5620 SAM uninstallation on Solaris

3 — 5620 SAM installation on Solaris

- 3.1 5620 SAM installation on Solaris overview 3-2
- 3.2 5620 SAM installation on Solaris procedures list 3-2
- 3.3 Workflow for standalone 5620 SAM installation on Solaris 3-3
- 3.4 Standalone 5620 SAM installation on Solaris procedures 3-3
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- 3.6 Redundant 5620 SAM installation on Solaris procedures 3-75
- 3.7 5620 SAM auxiliary server installation procedures 3-169

3.1 5620 SAM installation on Solaris overview

This chapter describes how to perform an installation of a 5620 SAM network management system on a Solaris platform. The following components comprise a 5620 SAM system on Solaris:

- one main server in a standalone deployment, or two in a redundant deployment
- one database in a standalone deployment, or two in a redundant deployment
- one or more auxiliary servers (optional)
- one or more single-user clients or client delegate servers

Before you attempt to perform a procedure in this chapter, ensure that you understand and comply with the relevant requirements, considerations, and precautions described in chapter 1 of this document.



Caution — Alcatel-Lucent supports 5620 SAM software configuration only under the conditions described in chapter 1.

3.2 5620 SAM installation on Solaris procedures list

Table 3-1 lists the procedures required to perform 5620 SAM software installation activities on a Solaris platform.

Table 3-1 5620 SAM installation on Solaris procedures list

Procedure	Purpose
To install a standalone 5620 SAM system on Solaris	Install the 5620 SAM database and server software in a standalone configuration on one or more Solaris stations.
To install a 5620 SAM single-user client on Solaris using a web browser	Install the 5620 SAM single-user client software on a Solaris station using a web browser.
To install a 5620 SAM single-user client on Solaris using the software DVD-ROM	Install the 5620 SAM single-user client software on a Solaris station from the 5620 SAM software DVD-ROM.
To install a 5620 SAM client delegate server	Install the 5620 SAM client delegate server software on a Solaris station for access by multiple users.
To add a client delegate server to an existing 5620 SAM system on Solaris	Add a new 5620 SAM client delegate server to an existing 5620 SAM system installed on Solaris.
To install a redundant 5620 SAM system on Solaris	Install the 5620 SAM database and server software in a redundant configuration on Solaris stations.
To install a 5620 SAM auxiliary server	Install the 5620 SAM auxiliary-server software on a Solaris station as part of a standalone or redundant 5620 SAM system.
To add auxiliary servers to an existing 5620 SAM system	Add a new 5620 SAM auxiliary server to an existing 5620 SAM system installed on Solaris.

3.3 Workflow for standalone 5620 SAM installation on Solaris

The following is the sequence of high-level actions required to install a standalone 5620 SAM system on a Solaris platform. A section heading in quotation marks is a reference to a section in Procedure 3-1.

- 1 Install the database. See ["Install standalone database"](#) for more information.
- 2 Install the main server. See ["Install standalone server"](#) for more information.
- 3 Install one or more auxiliary servers, if required. See Procedure 3-7 for information about installing an auxiliary server.
- 4 Install one or more 5620 SAM clients. See ["Install client"](#) for more information.

3.4 Standalone 5620 SAM installation on Solaris procedures

This section describes how to install the software components of a standalone 5620 SAM system on Solaris.

Procedure 3-1 describes how to install the 5620 SAM server and database software. Procedures 3-2 and 3-3 describe how to install the 5620 SAM client software. Procedure 3-4 describes how to install a 5620 SAM client delegate server.



Note — Command-line examples use the following to represent the Solaris CLI prompts:

- #—represents the prompt for a root or root-equivalent user
- bash\$—represents the prompt for the samadmin and Oracle management users

Do not type the # symbol or bash\$ when entering a command.

Procedure 3-1 To install a standalone 5620 SAM system on Solaris

Perform this procedure to install the 5620 SAM main server and database software in a standalone 5620 SAM system on one or more Solaris stations. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



Note 1 — You require the following user privileges to perform this procedure:

on the main server station:

- root or root-equivalent

on the database station:

- root or root-equivalent
- Oracle management

Note 2 — The samadmin user account is created on the main server station during this procedure.

Note 3 — The Oracle management user account is created on the database station during this procedure.

Run Oracle pre-installation script

- 1 Before you perform a 5620 SAM database installation on Solaris, you must run the Oracle10g_PreInstall.sh script. This script creates and configures the UNIX account for the Oracle management user and adds configuration information to the /etc/system file.

Log in to the station that is to be the database station as a user with root or root-equivalent privileges.

- 2 Open a console window.
- 3 Place the 5620 SAM software DVD-ROM in a DVD-ROM drive on the database station.
- 4 Navigate to the DVD-ROM drive.
- 5 Perform one of the following to change to the appropriate Solaris directory.
 - a On a Sun SPARC station, enter the following at the CLI prompt:

```
# cd Solaris ↵
```
 - b On a Sun X86-based station, enter the following at the CLI prompt:

```
# cd Solarisx86 ↵
```
- 6 Enter the following at the CLI prompt:

```
# ./Oracle10g_PreInstall.sh ↵
```

The following prompt is displayed:

Please select between the following option:

1) NEW INSTALL OF 5620 SAM

2) UPGRADE OF 5620 SAM

7 Enter 1 ↵.

8 The script prompts you for the following Oracle management user information:

- the user group name (default is dba)
- the user name (default is oracle)
- the home directory (default is /opt/5620sam/oracle10r2)
- a password, if one of the following is true:
 - there is no password
 - there is a password, but you specify that you want to change it

Provide the information. The script updates the system configuration.



Note 1 — To reduce the complexity of subsequent software upgrades and technical support activities, Alcatel-Lucent recommends that you press ↵ to accept the default value for each parameter.

Note 2 — If you specify a value other than the default, you must record the value for use when the Oracle10g_PreInstall.sh script is run during a software upgrade, or when the Oracle management user information is required by Alcatel-Lucent technical support.

Note 3 — If you receive a “failed to create group” message, confirm that NIS is disabled and re-run the pre-installation script. Contact Alcatel-Lucent technical support for more information.

9 When the script execution is complete, enter the following at the CLI prompt to reboot the database station:

```
# shutdown -y -i6 -g0 ↵
```

The database station reboots.

Before database installation can occur, the Oracle management user and group created by the pre-installation script require ownership of the directory that is to hold the database. The next section of the procedure describes how to configure the directory ownership.

Set directory ownership for database installation

10 After the database station reboots, log in to the database station as a user with root or root-equivalent privileges.

11 Open a console window.

12 Enter the following at the CLI prompt to change the current directory to /opt:

```
# cd /opt ↵
```

- 13 Enter the following at the CLI prompt to specify the required user and group ownership of the 5620sam directory and subdirectories:

```
# chown -R user:group 5620sam ↵
```

where

user is the username specified in step 8, typically oracle

group_name is the group name specified in step 8, typically dba

- 14 Enter the following at the CLI prompt to change to the 5620sam directory below /opt:

```
# cd 5620sam ↵
```

- 15 Enter the following at the CLI prompt to confirm that the Oracle management user home directory has the correct user and group ownerships:

```
# ls -l ↵
```

If the command output is not as shown below, repeat steps 12 to 15. Do not proceed unless the output is as shown.

```
drwx----- 2 user      group          512 Apr 11 11:15 directory
```

where

user is the username specified in step 8, typically oracle

group is the group name specified in step 8, typically dba

directory is the Oracle management user home directory name specified in step 8, typically /opt/5620sam/oracle10r2

Install standalone database

- 16 Log in to the station that is to be the database station as a user with root or root-equivalent privileges.
- 17 Open a console window.
- 18 Enter the following at the CLI prompt to switch to the Oracle management user created by the pre-installation script:

```
# su - Oracle_management_user_name ↵
```

where *Oracle_management_user_name* is the name of the UNIX account with Oracle management privileges, typically oracle

- 19 Place the 5620 SAM software DVD-ROM in a DVD-ROM drive.
- 20 Navigate to the DVD-ROM drive.

21 Perform one of the following to open the 5620 SAM database installer.

a On a Sun SPARC station:

i Enter the following at the CLI prompt:

```
bash$ cd Solaris ↵
```

ii Enter the following at the CLI prompt:

```
bash$ ./DBConfig_SAM_8_0_revision.bin ↵
```

where

revision is the revision identifier, such as R1, R3, or another descriptor

b On a Sun X86-based station:

i Enter the following at the CLI prompt:

```
bash$ cd Solarisx86 ↵
```

ii Enter the following at the CLI prompt:

```
bash$ ./DBConfig_x86_SAM_8_0_revision.bin ↵
```

where

revision is the revision identifier, such as R1, R3, or another descriptor

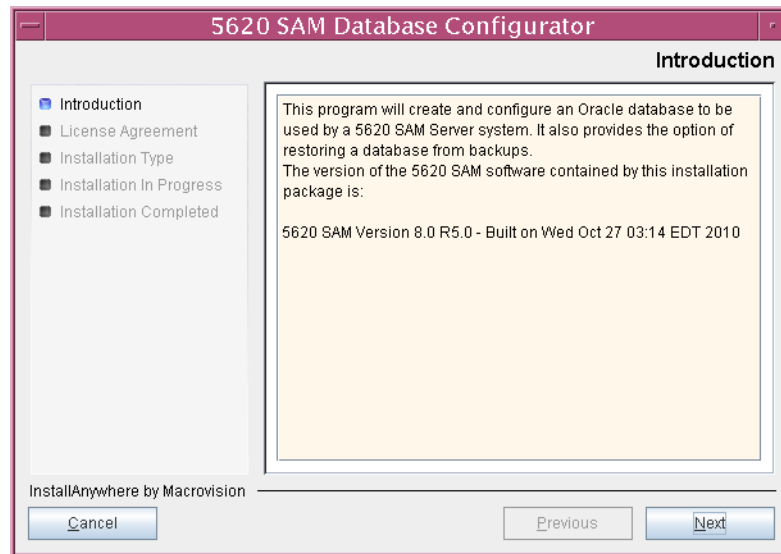
The splash screen shown in Figure 3-1 opens.

Figure 3-1 5620 SAM installer



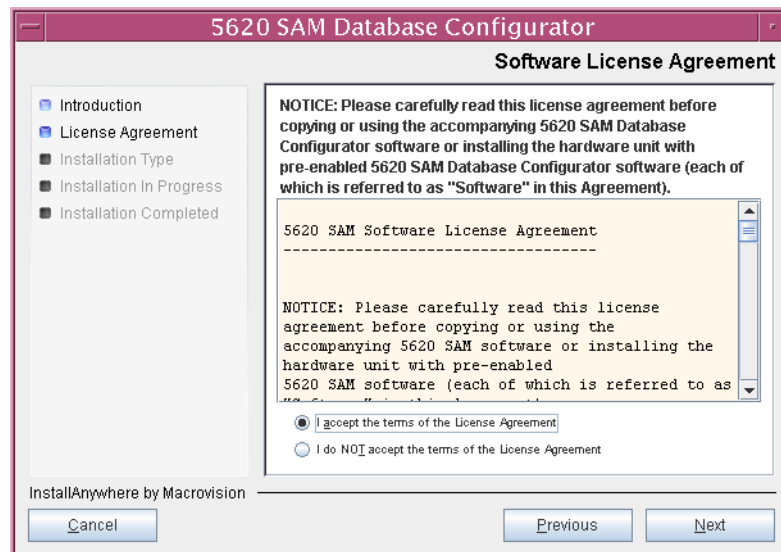
- 22 The 5620 SAM database installer opens, as shown in Figure 3-2. The left pane indicates installation progress. The right pane displays release information about the software. Click on the Next button.

Figure 3-2 Introduction



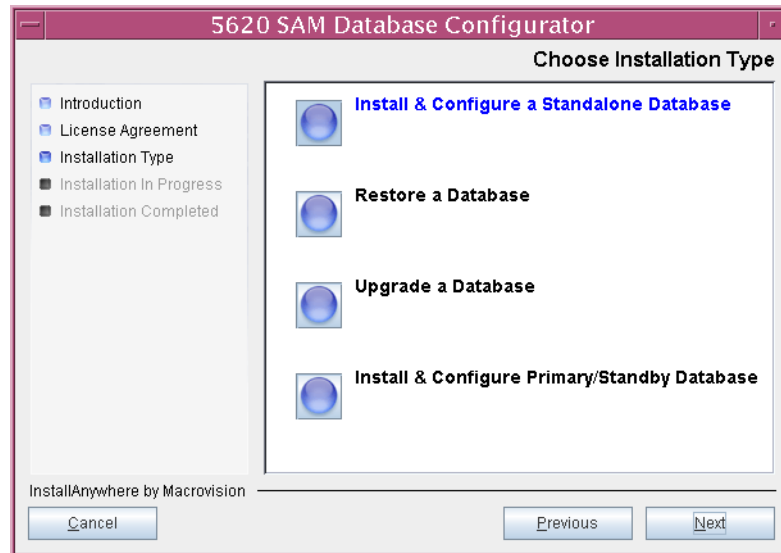
- 23 Review and accept the terms of the license agreement shown in Figure 3-3. Click on the Next button.

Figure 3-3 Software License Agreement



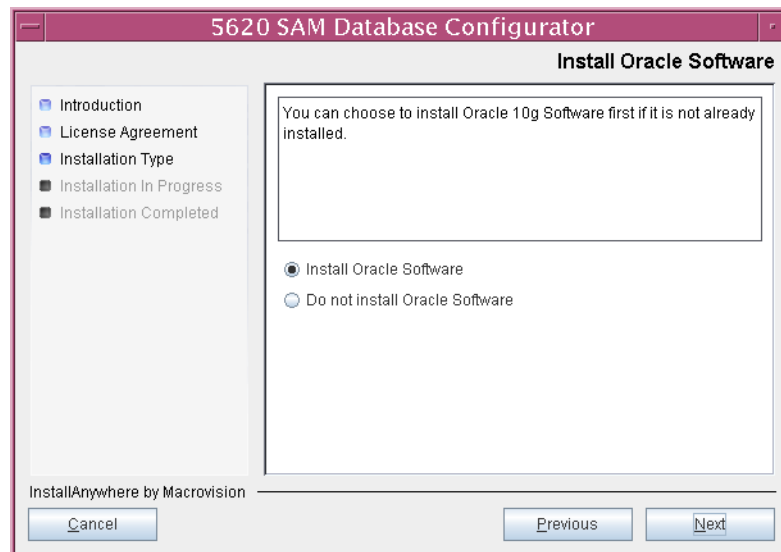
- 24 Select Install and Configure a Standalone Database, as shown in Figure 3-4. Click on the Next button.

Figure 3-4 Choose Installation Type



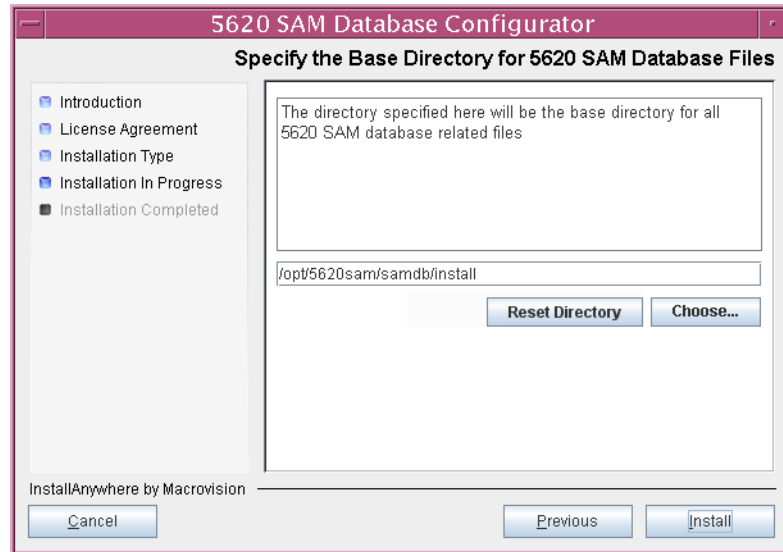
- 25 Select Install Oracle Software, as shown in Figure 3-5. Click on the Next button.

Figure 3-5 Install Oracle Software



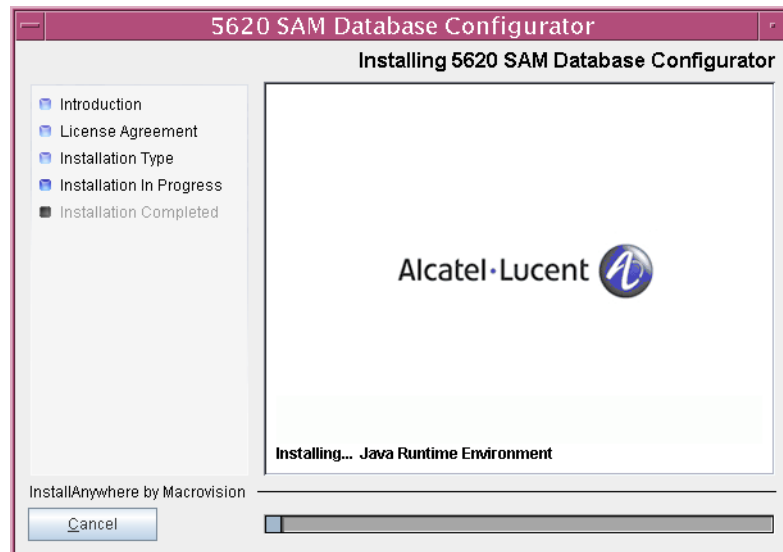
- 26 Specify a base directory in which to install the 5620 SAM database (typically /opt/5620sam/samdb/install), as shown in Figure 3-6. Click on the Install button to begin the database software installation.

Figure 3-6 Specify the Base Directory for 5620 SAM Database Files



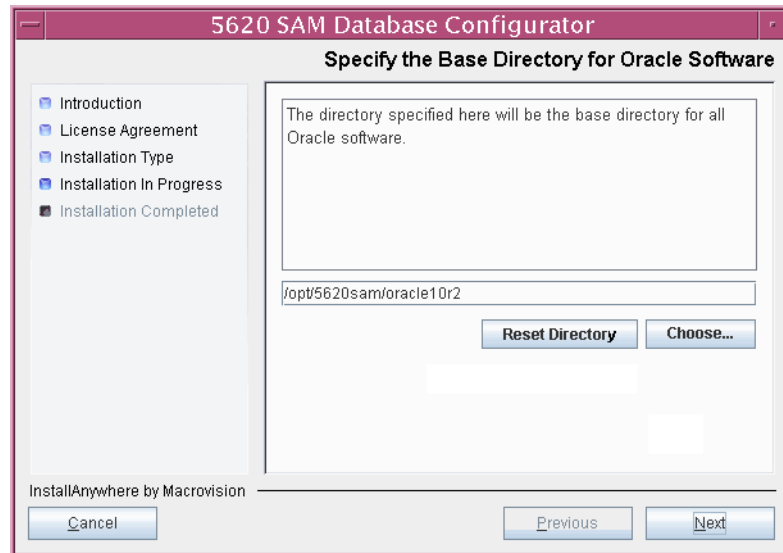
The installer prepares to install the database, as shown in Figure 3-7.

Figure 3-7 Installing 5620 SAM Database Configurator



- 27 Specify a base directory in which to install the Oracle software (typically /opt/5620sam/oracle10r2), as shown in Figure 3-8. Click on the Next button.

Figure 3-8 Specify the Base Directory for Oracle Software



28 Perform the following steps when the panel in Figure 3-9 is displayed.

- i Open a separate console window.
- ii Enter the following at the CLI prompt to switch to the root user:
- iii Enter the following at the CLI prompt to run the Oracle pre-install script:

```
# su -
```

```
# path/install/config/orainstRoot.sh
```

where *path* is the 5620 SAM database installation location, typically /opt/5620sam/samdb

The script generates messages like the following:

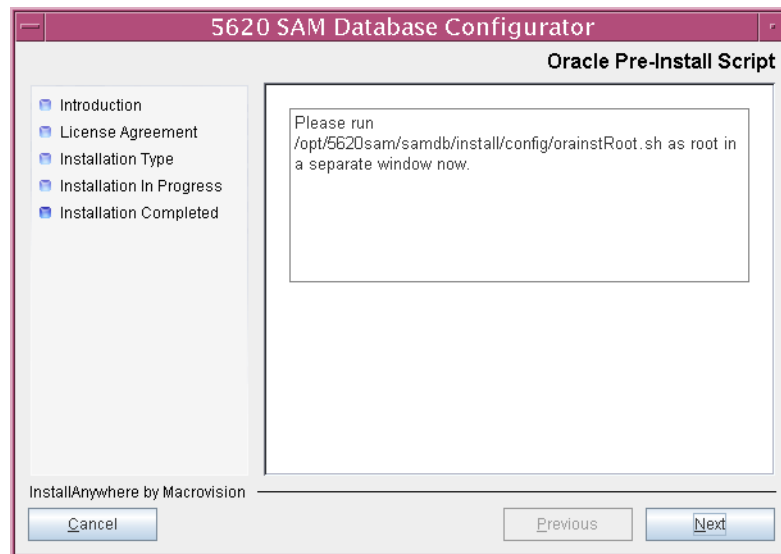
```
Creating the Oracle inventory pointer file  
(/var/opt/oracle/oraInst.loc)
```

```
Creating the Oracle inventory directory  
(/opt/5620sam/oracle10r2/oraInventory)
```

```
Changing groupname of /opt/5620sam/oracle10r2/oraInventory to  
(dba).
```

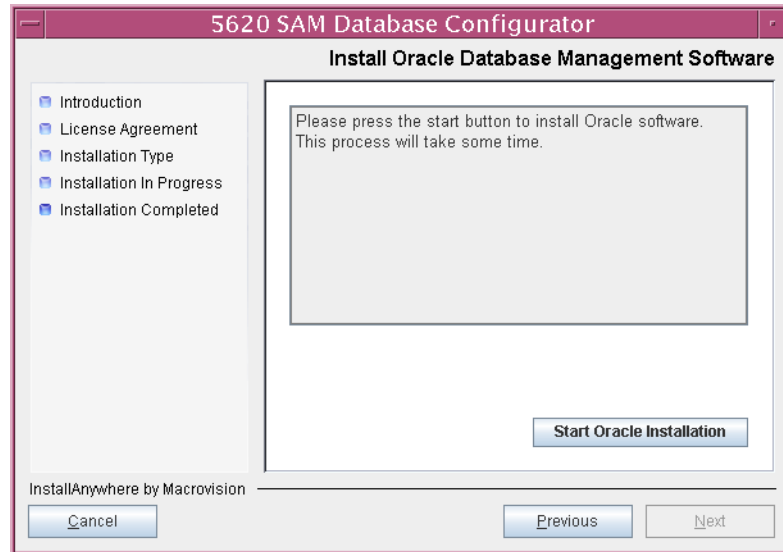
- iv When the script execution is complete, close the console window.
- v Click on the Next button.

Figure 3-9 Oracle Pre-Install Script



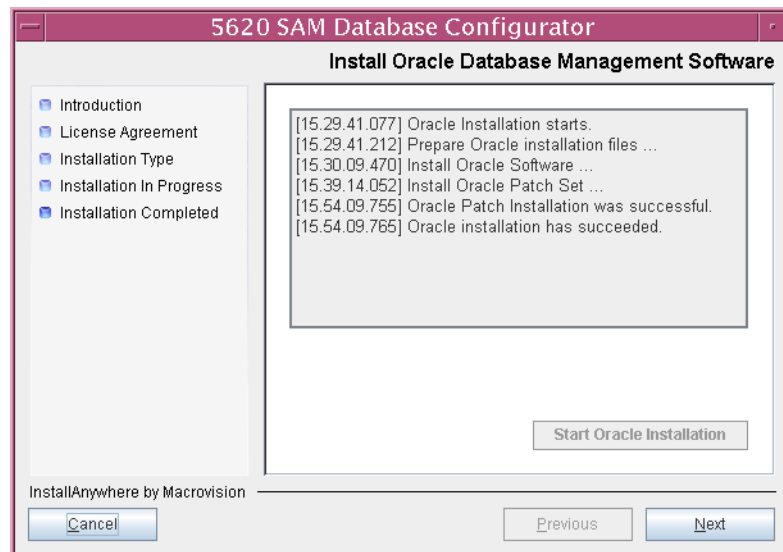
- 29 You are prompted to install Oracle software, as shown in Figure 3-10. This operation can take one hour or more. Click on the Start Oracle Installation button to begin the Oracle software installation.

Figure 3-10 Install Oracle Database Management Software



- 30 As shown in Figure 3-11, Oracle installation details are displayed as the installation progresses. When the installation is complete, click on the Next button.

Figure 3-11 Install Oracle Database Management Software



- 31 Perform the following steps when the panel in Figure 3-12 is displayed.
 - i Open a separate console window.
 - ii Enter the following at the CLI prompt to switch to the root user:

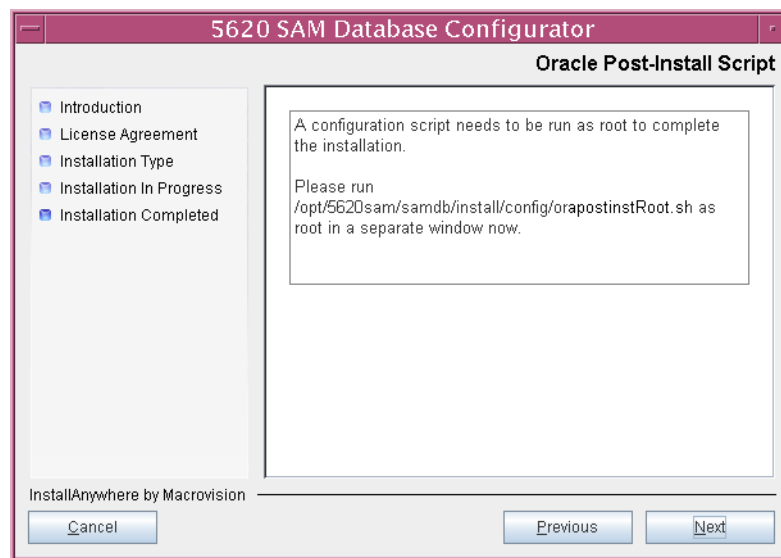
```
# su -
```
 - iii Enter the following at the CLI prompt to run the Oracle post-install script:

```
# path/install/config/orapostinstRoot.sh
```

where *path* is the 5620 SAM database installation location, typically /opt/5620sam/samdb
The script generates messages like the following.
The following environment variables are set as:

```
ORACLE_OWNER= oracle  
  
ORACLE_HOME=  
  
/opt/5620sam/oracle10r2
```
 - iv The following prompt is displayed.
Enter the full pathname of the local bin directory:
[/usr/local/bin]:
Respond to the prompt. The default value is typically acceptable.
 - v If you are prompted to overwrite an existing file, press `Y` to overwrite it.
 - vi When the script execution is complete, close the console window.
 - vii Click on the Next button.

Figure 3-12 Oracle Post-Install Script



32 Configure the following parameters shown in Figure 3-13, then click on the Next button:

- NAT (network address translation) Used
- Public IP (accessible to servers)
- Private IP
- Database Name (typically samdb)
- Instance Name (typically samdb)
- User Name (typically samuser)
- User Password



Note — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected.

Figure 3-13 General Database Configuration Info

The screenshot shows the '5620 SAM Database Configurator' window. The title bar is purple with the text '5620 SAM Database Configurator'. The main window has a tabbed interface with the 'General Database Configuration Info' tab selected. On the left, there is a sidebar with five tabs: 'Introduction', 'License Agreement', 'Installation Type', 'Installation In Progress', and 'Installation Completed'. The main area contains a text box with instructions: 'Enter the network interface information that the database requires to communicate with the servers. If NAT (network address translation) is to be used, specify the database's private IP address.' Below this is a checkbox labeled 'NAT (network address translation) Used' which is checked. Underneath the checkbox is a dropdown menu for 'Public IP (accessible to servers)' showing the value '192.168.200.133'. Below the dropdown are five text input fields: 'Database Name' (containing 'samdb'), 'Instance Name' (containing 'samdb'), 'User Name' (containing 'samuser'), 'User Password' (containing seven asterisks), and 'Confirm User Password' (containing seven asterisks). At the bottom left, it says 'InstallAnywhere by Macrovision'. At the bottom right, there are three buttons: 'Cancel', 'Previous', and 'Next'.

33 Configure the following parameters in Figure 3-14, then click on the Next button:

- Database Listener Port (typically 1523)
- Database Proxy Port (typically 9002)

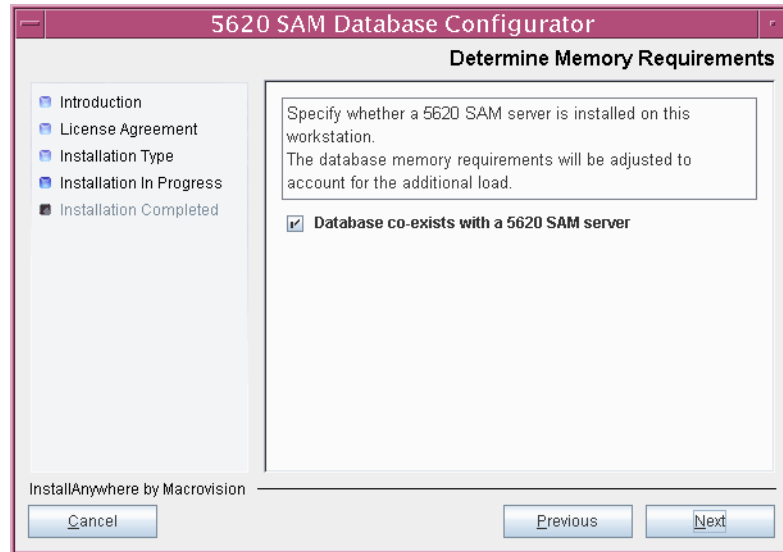
Figure 3-14 General Database Configuration Info (cont.)

34 Enter and confirm the Oracle SYS password, as shown in Figure 3-15. Click on the Next button.

Figure 3-15 Oracle SYS Password

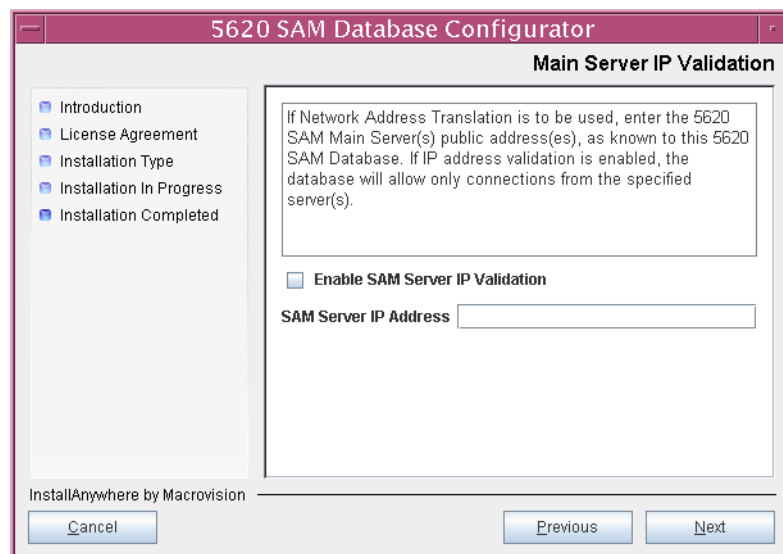
- 35 If the 5620 SAM server and database are to be installed on the same station, select the “Database co-exists with a 5620 SAM Server” parameter shown in Figure 3-16. Click on the Next button.

Figure 3-16 Determine Memory Requirements



- 36 If the “Enable SAM Server IP Validation” parameter shown in Figure 3-17 is selected, only the server at the specified IP address or hostname can connect to the database. If required, select this parameter and enter the IP address of the 5620 SAM server. Click on the Next button.

Figure 3-17 Main Server IP Validation

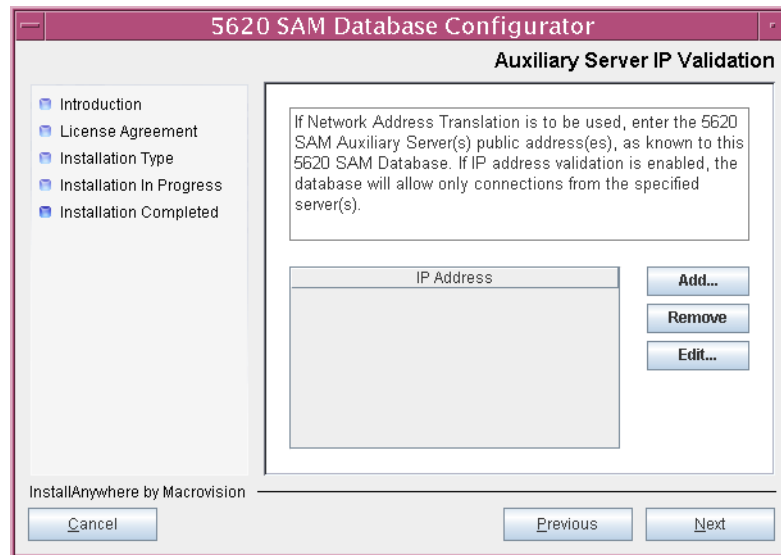


- 37 The panel in Figure 3-18 is displayed If the “Enable SAM Server IP Validation” parameter in step 36 is selected. Otherwise, go to step 39.

If the 5620 SAM system includes an auxiliary server, perform the following steps.

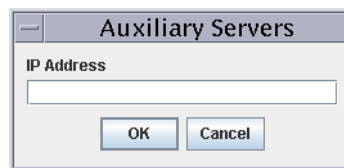
- i Click on the Add button shown in Figure 3-18. The Auxiliary Server Configuration form shown in Figure 3-19 opens.

Figure 3-18 Auxiliary Server IP Validation



- ii Enter the IP address or hostname of the auxiliary server.

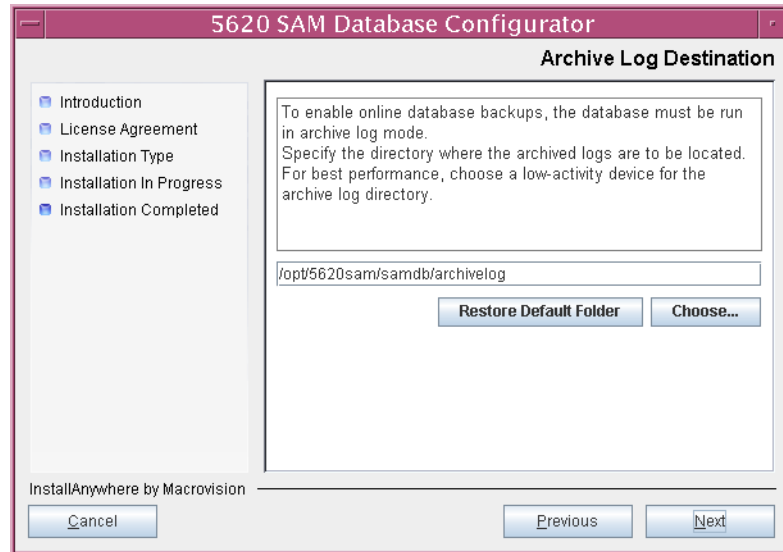
Figure 3-19 Auxiliary Servers



- iii Click on the OK button to save the information and close the form.
 - iv Repeat steps 37 i to iii to specify an additional auxiliary server, if required.
- 38 Click on the Next button.

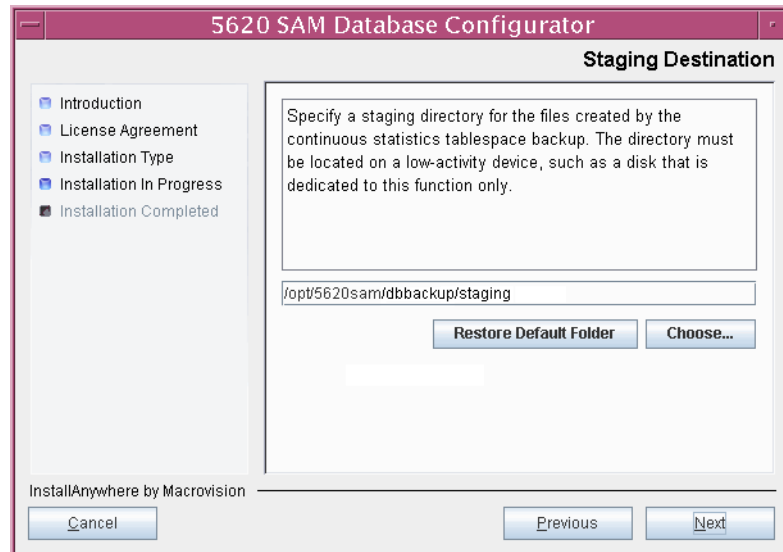
- 39 Specify a directory as the archive log destination (typically /opt/5620sam/samdb/archivelog), as shown in Figure 3-20. Click on the Next button.

Figure 3-20 Archive Log Destination



- 40 Specify a directory for the continuous statistics tablespace backup, as shown in Figure 3-21. Click on the Next button.

Figure 3-21 Staging Destination

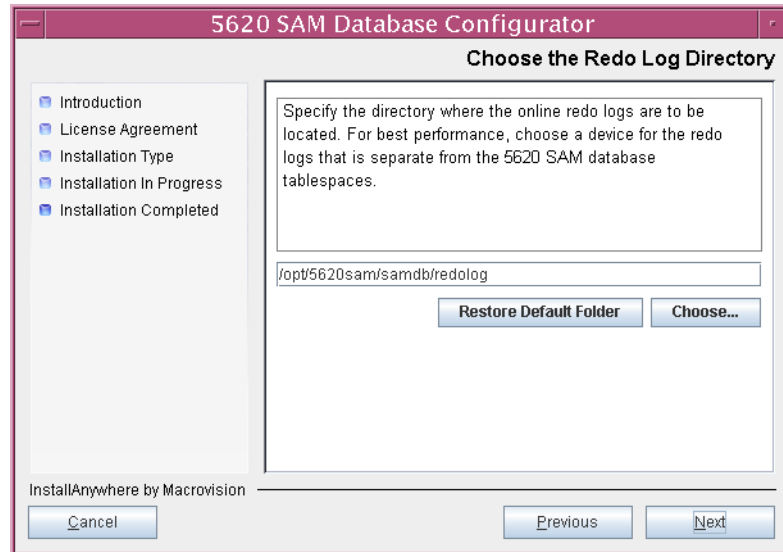


- 41 Specify a directory for the Redo logs (typically /opt/5620sam/samdb/redolog), as shown in Figure 3-22. Click on the Next button.



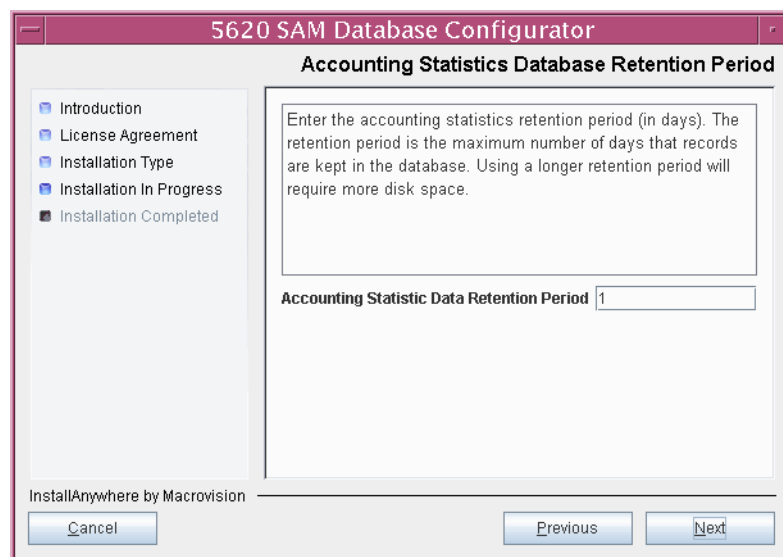
Note — In a one-disk configuration, the redo log directory must be the same directory that you specify as the tablespace directory later in the procedure.

Figure 3-22 Choose the Redo Log Directory



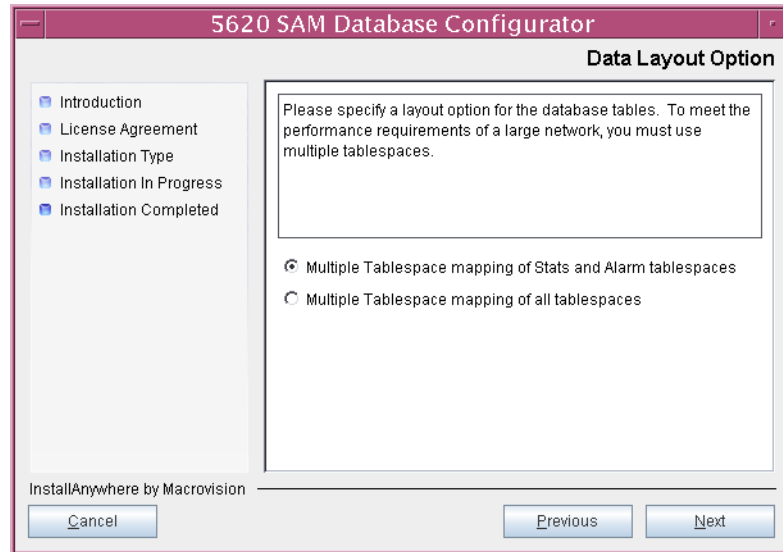
- 42 Configure the “Accounting Statistic Database Retention Period” parameter shown in Figure 3-23. Click on the Next button.

Figure 3-23 Accounting Statistics Database Retention Period



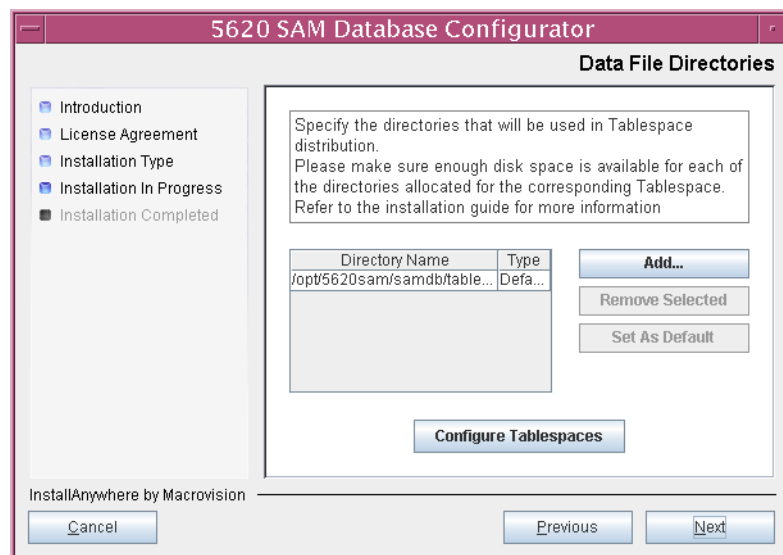
- 43 Choose one of the data layout options shown in Figure 3-24. Click on the Next button. Contact Alcatel-Lucent technical support for information about data layout options.

Figure 3-24 Data Layout Option



- 44 Choose the tablespace directories.
- i Click on the Add button shown in Figure 3-25. A file browser form opens.
 - ii Use the file browser form to choose a tablespace directory.
 - iii Repeat steps 44 i and ii to specify an additional tablespace directory, if required.

Figure 3-25 Data File Directories



- 45 Associate tablespaces with the directories specified in step 44.
- i Click on the Configure Tablespaces button. The tablespace configuration form shown in Figure 3-26 opens.



Note — The lists of drives and tablespaces on the tablespace configuration form may differ from the lists shown in the figure below.

- ii Follow the instructions at the top of the form to associate tablespaces with the directories, as required.
- iii Click on the OK button. The tablespace configuration form closes and the Data File Directories panel in Figure 3-25 reappears.

Figure 3-26 Configure Tablespaces

Select one drive and one or more Tablespaces from the left side. Add those associations to the right side using the 'Add associations from the left' button.
You can select at the same time on both TS tables at the left: Oracle Tablespaces and 5620 SAM Tablespaces

Directory Name	Type
/opt/5620sam/samdb/tables	Default

Oracle Tablespaces

Tablespace Name
INDX
SYSAUX
SYSTEM
TEMP
UNDOTBS1

5620 SAM Tablespaces

Tablespace Name
ALARMS
ALARM_HISTORY
CURRENT_DATA_STRUCT_1
CURRENT_DATA_STRUCT_2
CURRENT_DATA_STRUCT_3
CURRENT_DATA_STRUCT_4
SAM_RELATIONS_1
SAM_RELATIONS_2
SAM_SYSTEM_4

Name	Drive
ALARMS	/opt/5620sam/samdb/tables
ALARM_HISTORY	/opt/5620sam/samdb/tables
CURRENT_DATA_STRUCT_1	/opt/5620sam/samdb/tables
CURRENT_DATA_STRUCT_2	/opt/5620sam/samdb/tables
CURRENT_DATA_STRUCT_3	/opt/5620sam/samdb/tables
CURRENT_DATA_STRUCT_4	/opt/5620sam/samdb/tables
INDX	/opt/5620sam/samdb/tables
SAM_RELATIONS_1	/opt/5620sam/samdb/tables
SAM_RELATIONS_2	/opt/5620sam/samdb/tables
SAM_SYSTEM_1	/opt/5620sam/samdb/tables
SAM_SYSTEM_2	/opt/5620sam/samdb/tables
SAM_SYSTEM_3	/opt/5620sam/samdb/tables
SAM_SYSTEM_4	/opt/5620sam/samdb/tables
STATS_CURRENT	/opt/5620sam/samdb/tables
STATS_HISTORY	/opt/5620sam/samdb/tables
STATS_POLICY	/opt/5620sam/samdb/tables
SYSAUX	/opt/5620sam/samdb/tables
SYSTEM	/opt/5620sam/samdb/tables
TEMP	/opt/5620sam/samdb/tables
TIMS_SYSTEM	/opt/5620sam/samdb/tables
TIMS_SYS_INDX	/opt/5620sam/samdb/tables
UNDOTBS1	/opt/5620sam/samdb/tables
USERS	/opt/5620sam/samdb/tables

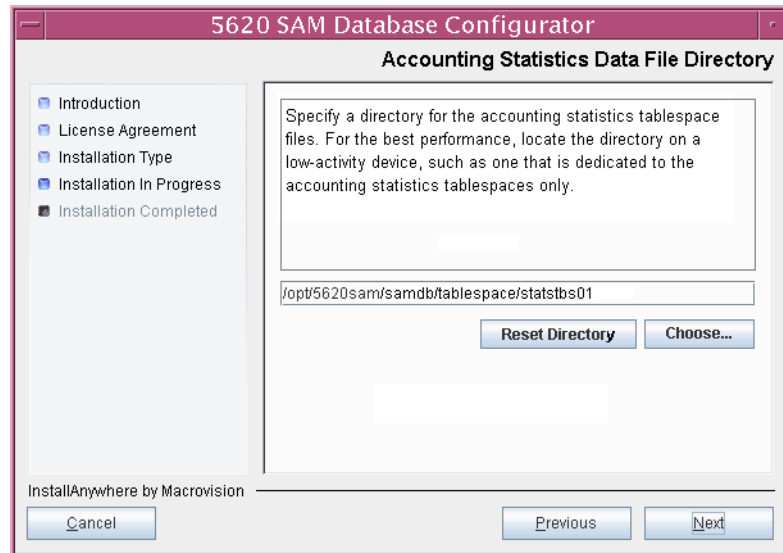
Add associations from the left
Remove Selected Associations
Set Default Associations
Select All

OK Cancel

- 46 Click on the Next button.

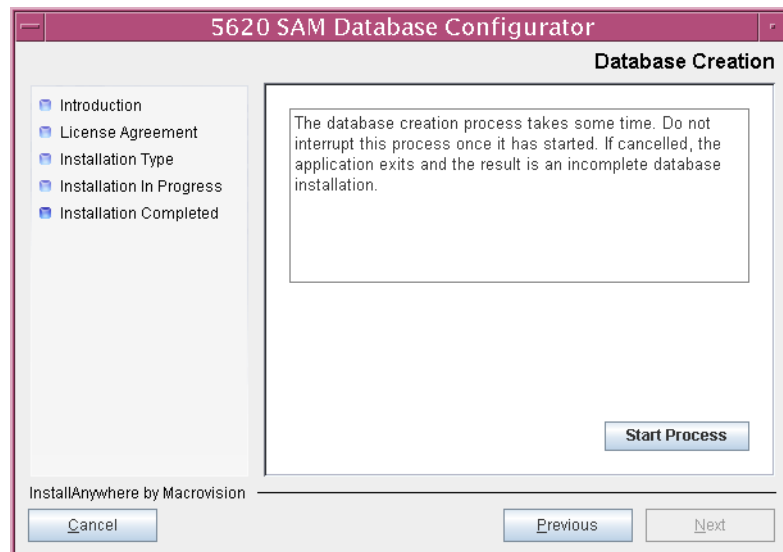
- 47 Specify a directory for the accounting statistics tablespace files, as shown in Figure 3-27. Click on the Next button.

Figure 3-27 Accounting Statistics Data File Directory



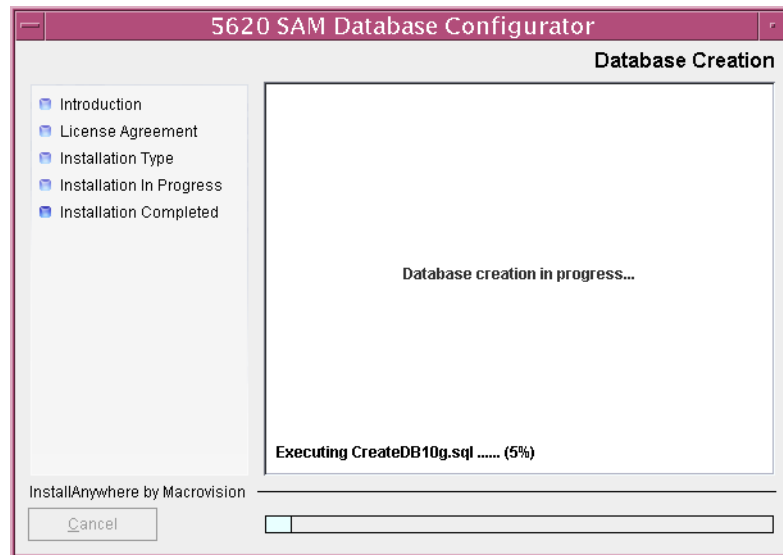
- 48 You are prompted to begin database creation, as shown in Figure 3-28. Database creation can take one hour or more, depending on the tablespace configuration. Click on the Start Process button to begin the database creation.

Figure 3-28 Database Creation



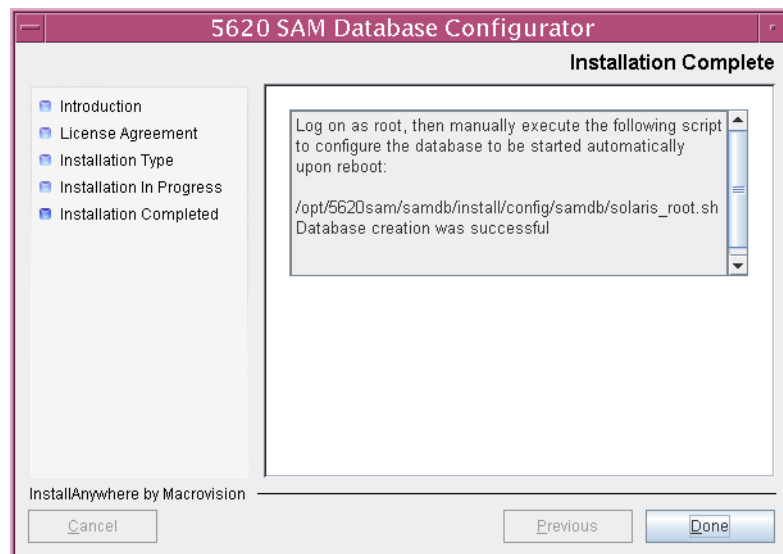
The next panel displays database creation progress, as shown in Figure 3-29.

Figure 3-29 Database Creation



- 49 When the panel in Figure 3-30 is displayed, the 5620 SAM database installation is complete, but as shown in the panel text, you must run a script to enable automatic database startup.

Figure 3-30 Installation Complete



Perform the following steps to run the script described in the panel.

- i Open a separate console window as a user with root or root-equivalent privileges.
- ii Enter the following at the CLI prompt:

```
# path/install/config/samdb/solaris_root.sh
```

where *path* is the 5620 SAM database installation location, typically /opt/5620sam/samdb

The script returns messages similar to the following:

```
creating link for /usr/local/lib/libiconv.so.2  
creating link for /usr/local/lib/libpopt.so.0  
creating link for /usr/local/lib/libintl.so.8  
creating link for /usr/local/lib/libgcc_s.so.1
```

- iii When the script execution is complete, close the console window.

- 50 Click on the Done button to close the database installer.

The next section of the procedure describes the installation of the standalone 5620 SAM main server. You can install the server on the same station as the database, or on another station. Server installation requires root-equivalent privileges.

Install standalone server

- 51 Log in to the station that is to be the server station as a user with root or root-equivalent privileges.
- 52 Open a console window.
- 53 Place the 5620 SAM software DVD-ROM in a DVD-ROM drive.
- 54 Navigate to the DVD-ROM drive.

55 Perform one of the following to open the 5620 SAM server installer.

a On a Sun SPARC station:

i Enter the following at the CLI prompt:

```
# cd Solaris ↵
```

ii Enter the following at the CLI prompt:

```
# ./ServerInstall_SAM_8_0_revision.bin ↵
```

where

revision is the revision identifier, such as R1, R3, or another descriptor

b On a Sun X86-based station:

i Enter the following at the CLI prompt:

```
# cd Solarisx86 ↵
```

ii Enter the following at the CLI prompt:

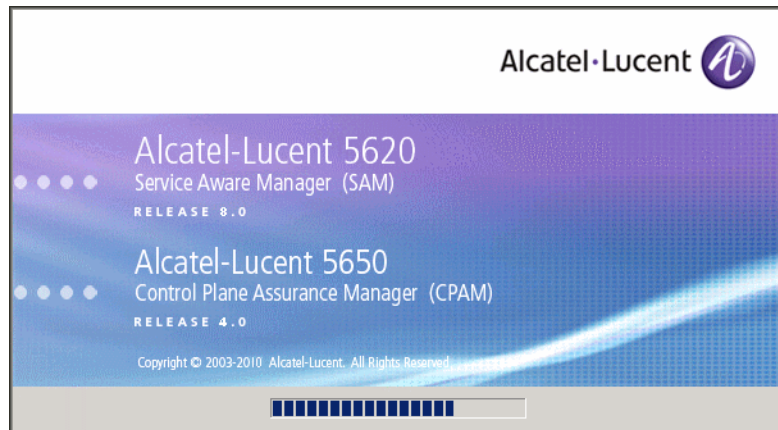
```
# ./ServerInstall_x86_SAM_8_0_revision.bin ↵
```

where

revision is the revision identifier, such as R1, R3, or another descriptor

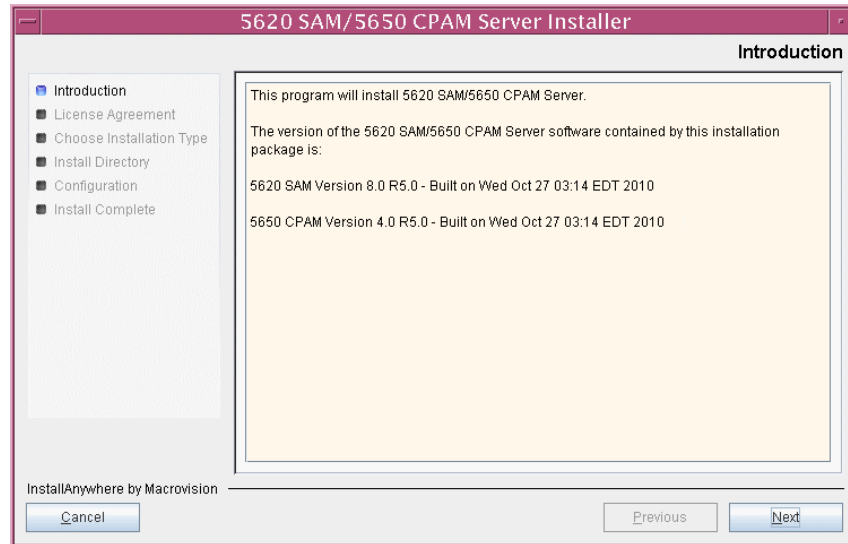
The splash screen shown in Figure 3-31 opens.

Figure 3-31 5620 SAM installer



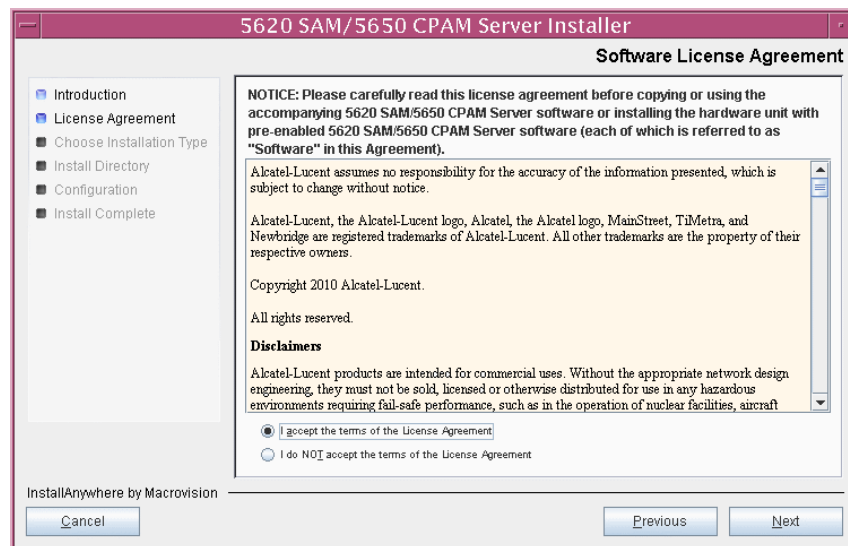
- 56 The 5620 SAM server installer opens, as shown in Figure 3-32. The left pane indicates installation progress. The right pane displays release information about the software. Click on the Next button.

Figure 3-32 Introduction



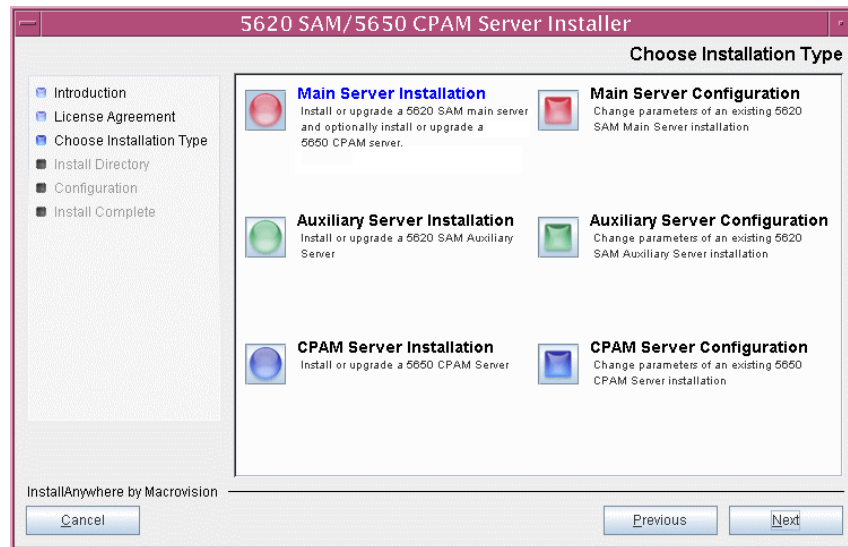
- 57 Review and accept the terms of the license agreement shown in Figure 3-33. Click on the Next button.

Figure 3-33 Software License Agreement



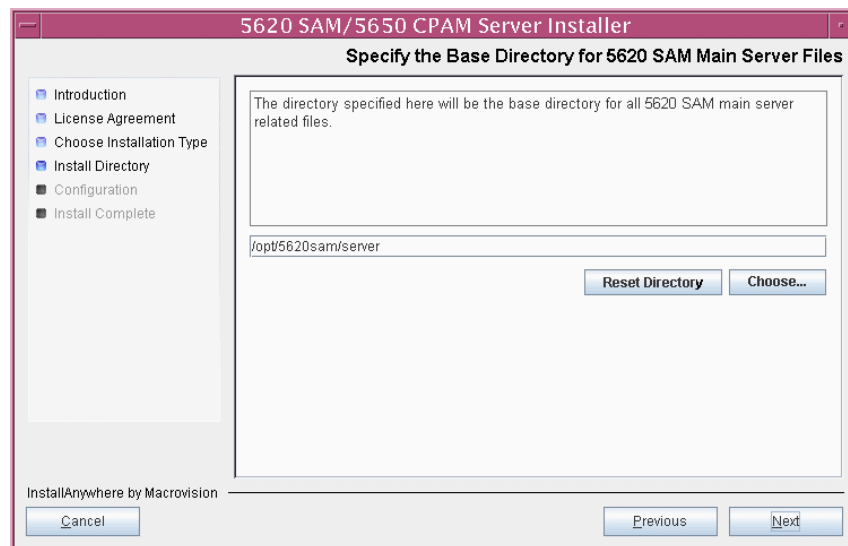
- 58 Select Main Server Installation, as shown in Figure 3-34. Click on the Next button.

Figure 3-34 Choose Installation Type



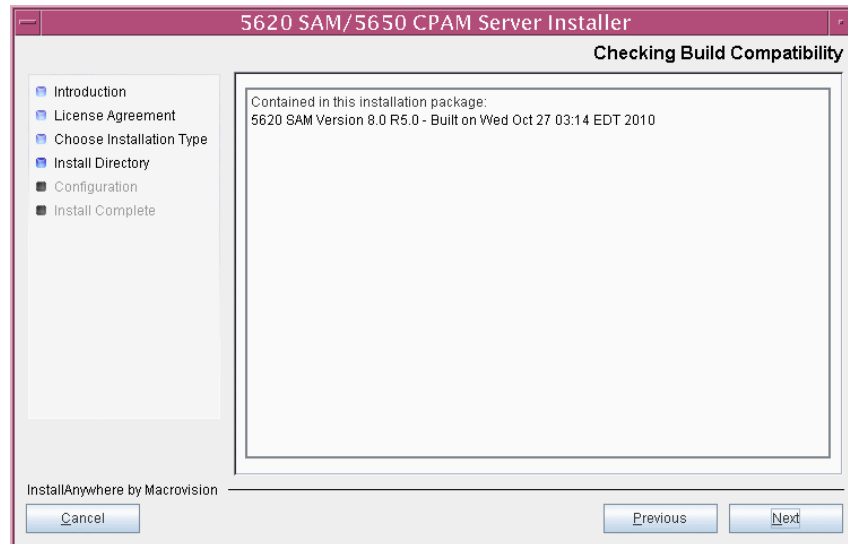
- 59 Specify a base directory in which to install the 5620 SAM main server software (typically /opt/5620sam/server), as shown in Figure 3-35. Click on the Next button.

Figure 3-35 Specify the Base Directory for 5620 SAM Main Server Files



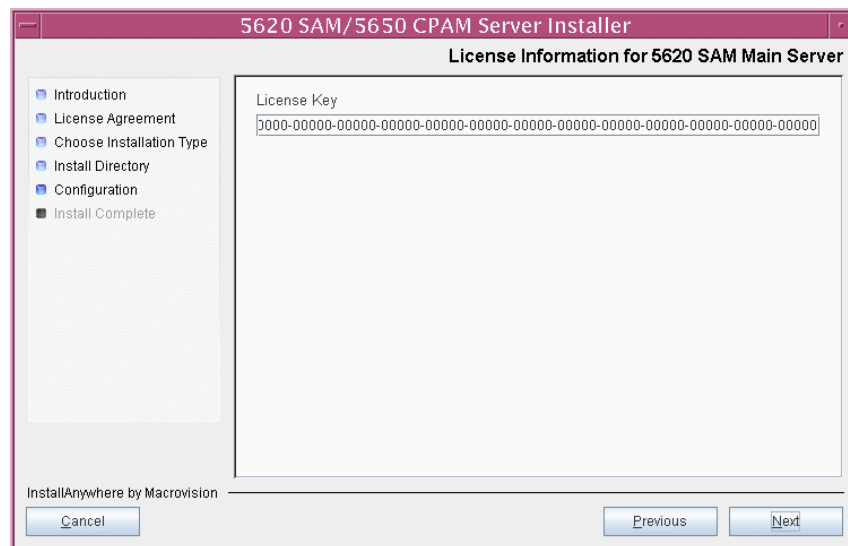
- 60 As shown in Figure 3-36, the installer indicates which release of 5620 SAM software is to be installed. Verify the information. Click on the Next button.

Figure 3-36 Checking Build Compatibility



- 61 Enter the License Key information exactly as received from Alcatel-Lucent. Include the dashes in the key, as shown in Figure 3-37. Click on the Next button.

Figure 3-37 License Information for 5620 SAM Main Server



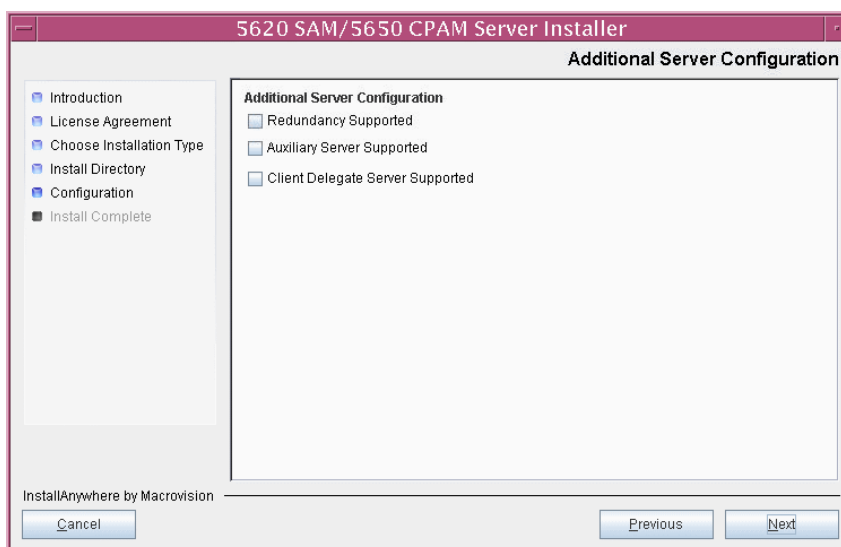
62 Configure the following parameters shown in Figure 3-38, then click on the Next button.

- Redundancy Supported
- Auxiliary Server Supported
- Client Delegate Server Supported



Note — You must leave the Redundancy Supported parameter unselected.

Figure 3-38 Additional Server Configuration



63 Configure the following parameters, shown in Figure 3-39, using the recorded values from the database installation. Click on the Next button.

- Database Server IP address
- Database Server Port (typically 1523)
- Database Instance Name (typically samdb)
- Database User Name (typically samuser)
- Database User Password
- Database Proxy Port (typically 9002)

Figure 3-39 Database Configuration

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window with the 'Database Configuration' tab selected. On the left is a navigation pane with options: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (selected), and Install Complete. The main area contains a text box with NAT instructions and several input fields. The 'Database Server IP Address' field is highlighted in yellow. The other fields contain the following values: Database Server Port (1523), Database Instance Name (samdb), Database User Name (samuser), Database User Password (masked with asterisks), and Database Proxy Port (9002). At the bottom are 'Cancel', 'Previous', and 'Next' buttons, along with the text 'InstallAnywhere by Macrovision'.

Field	Value
Database Server IP Address	
Database Server Port	1523
Database Instance Name	samdb
Database User Name	samuser
Database User Password	*****
Database Proxy Port	9002

64 Configure the following parameters shown in Figure 3-40, then click on the Next button:

- Online Database Backup Interval (hours) (typically 24)
- Online Backup Destination (typically /opt/5620sam/dbbackup)
- Number Of Backup Sets (typically 3)



Note — The Online Backup Destination is a path on the file system of the database station specified in step 63.

Figure 3-40 Online Database Backup

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window. The title bar is pink. The window has a sidebar on the left with a list of steps: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration, and Install Complete. The 'Configuration' step is currently selected. The main area is titled 'Online Database Backup'. It contains a text box with the instruction: 'The database backup directory resides on the database workstation. Please ensure that the specified directory exists on the database workstation and it is writable.' Below this are three input fields: 'Online Backup Interval (Hours)' with the value '24', 'Online Backup Destination' with the value '/opt/5620sam/dbbackup', and 'Number Of Backup Sets' with the value '3'. At the bottom of the window, there are three buttons: 'Cancel', 'Previous', and 'Next'. The 'Next' button is highlighted.

- 65 The panel in Figure 3-41 is displayed if you select “Auxiliary Server Supported” in step 62. Otherwise, go to step 67.

Perform the following steps to specify an auxiliary server, if required.

- i Configure the following parameters shown in Figure 3-41:
 - NAT (network address translation) Used
Select this parameter only if NAT is to be used between the 5620 SAM main and auxiliary servers.
 - Private IP (accessible only by this server)
 - Public IP (accessible to auxiliary)
 - Server Port (typically 12800)
 - Enable Stats Collection on Auxiliary Servers
 - Enable Call Trace Collection on Auxiliary Servers



Note — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 3-41.

Figure 3-41 Main Server Configuration for Auxiliary Servers

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window. The title bar is '5620 SAM/5650 CPAM Server Installer'. The main title is 'Main Server Configuration for Auxiliary Servers'. On the left is a navigation pane with the following items: Introduction (selected), License Agreement, Choose Installation Type, Install Directory, Configuration, and Install Complete. The main area contains the following text and controls:

Enter the the network interface information that this 5620 SAM main server requires to communicate with the 5620 SAM auxiliary servers.
At least one service type checkbox must be selected.

☒ NAT (network address translation) Used

Private IP (accessible only by this server) 192.168.200.111

Public IP (accessible to auxiliary) [Yellow highlighted text box]

Server Port 12800

☐ Enable Stats Collection on Auxiliary Servers

☒ Enable Call Trace Collection on Auxiliary Servers

At the bottom left is 'InstallAnywhere by Macrovision'. At the bottom right are 'Cancel', 'Previous', and 'Next' buttons.

- ii Click on the Next button.

- iii Click on the Add button shown in Figure 3-42 to specify an auxiliary server. The form shown in Figure 3-43 opens.



Note 1 — An auxiliary server can perform statistics collection or call-trace data collection, but not both.

Note 2 — Statistics data collection requires only a preferred auxiliary server; a reserved auxiliary server is optional.

Note 3 — Call-trace data collection requires at least one preferred and reserved auxiliary server pair.

Figure 3-42 Auxiliary Servers



Note — To minimize network latency between this main server and the Preferred auxiliary server that you specify in this step, specify an auxiliary server in the local network rather than an auxiliary server that is geographically remote.

Figure 3-43 Auxiliary Server Configuration

- iv Configure the following parameters:
 - IP Address
 - Port (typically 12800)
 - Type (Preferred or Reserved)
- v Click on the OK button to save the information and close the form.
- vi Repeat steps 65 iii to v to specify an additional auxiliary server, if required.
- vii If “Enable Call Trace Collection on Auxiliary Servers” is selected in step 65 i, click on the “Configure Call Trace Auxiliary Servers” button shown in Figure 3-42. Otherwise, go to step 66.
- viii The form shown in Figure 3-44 opens. Select a preferred auxiliary server in the upper left panel and the associated reserved auxiliary server in the lower left panel, and click on the “Make Pair from Selected” button. The auxiliary servers move to the list on the right side of the form.

Figure 3-44 Configure Call Trace Auxiliary Servers

Select one preferred server and one reserved server from the left side. Add those servers to the right side using the 'Make Pair from Selected' button.

Preferred Auxiliary Servers	
IP Address	Port
10.1.1.1	12800
10.1.1.2	12800
10.1.1.3	12800

Reserved Auxiliary Servers	
IP Address	Port
10.2.2.1	12800
10.2.2.2	12801
10.2.2.3	12800

Server Pairs	
Preferred Server IP	Reserved Server IP

Make Pair from Selected Remove Selected Pair OK Cancel

- ix Repeat step 65 viii to configure another call-trace auxiliary server pair, if required.

- 66 Click on the Next button.
- 67 Perform the following steps.
 - i Configure the following parameters shown in Figure 3-45:
 - Server Domain Name (typically 5620sam)
This is a value that uniquely identifies the 5620 SAM server cluster.
 - Use Hostname for Communication
Select this parameter if the main server is to use multiple interfaces for GUI and OSS client communication.

Figure 3-45 Main Server Configuration for Clients

5620 SAM/5650 CPAM Server Installer

Main Server Configuration for Clients

Enter the network interface information that the GUI and OSS clients require to communicate with this 5620 SAM main server.

If multiple addresses are to be used for communication with GUI clients, OSS clients, and auxiliary servers, a hostname must be provided for the Public Hostname field.

Server Domain Name:

☐ Use Hostname for Communication (recommended if NAT is used)

☒ NAT (network address translation) Used

Private IP (accessible only by this server):

Public IP (accessible to clients):

EJB JNDI Server port:

EJB JMS Server port:

☐ Enable 5670 RAM

☐ Enable 3GPP OSS Interface

InstallAnywhere by Macrovision

- ii If you select Use Hostname for Communication, go to step 67 vi.
- iii Configure the following parameters:
 - NAT (network address translation) Used
 - Private IP (accessible only by this server)
 - Public IP (accessible to clients)
 - EJB JNDI Server port (typically 1099)
 - EJB JMS Server port (typically 8093)
 - Enable 5670 RAM
 - Enable 3GPP OSS Interface



Note — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 3-45.

- iv Click on the Next button.
- v Go to step 69.
- vi Configure the following parameters shown in Figure 3-46:
 - NAT (network address translation) Used
 - Private IP (accessible only by this server)
 - Public Hostname
 - EJB JNDI Server port (typically 1099)
 - EJB JMS Server port (typically 8093)
 - Enable 5670 RAM
 - Enable 3GPP OSS Interface



Note — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 3-46.

Figure 3-46 Main Server Configuration for Clients

5620 SAM/5650 CPAM Server Installer

Main Server Configuration for Clients

Enter the network interface information that the GUI and OSS clients require to communicate with this 5620 SAM main server.

If multiple addresses are to be used for communication with GUI clients, OSS clients, and auxiliary servers, a hostname must be provided for the Public Hostname field.

Server Domain Name: 5620sam

☒ Use Hostname for Communication (recommended if NAT is used)

☒ NAT (network address translation) Used

Private IP (accessible only by this server): 192.168.200.111

Public Hostname:

EJB JNDI Server port: 1099

EJB JMS Server port: 8093

☐ Enable 5670 RAM

☐ Enable 3GPP OSS Interface

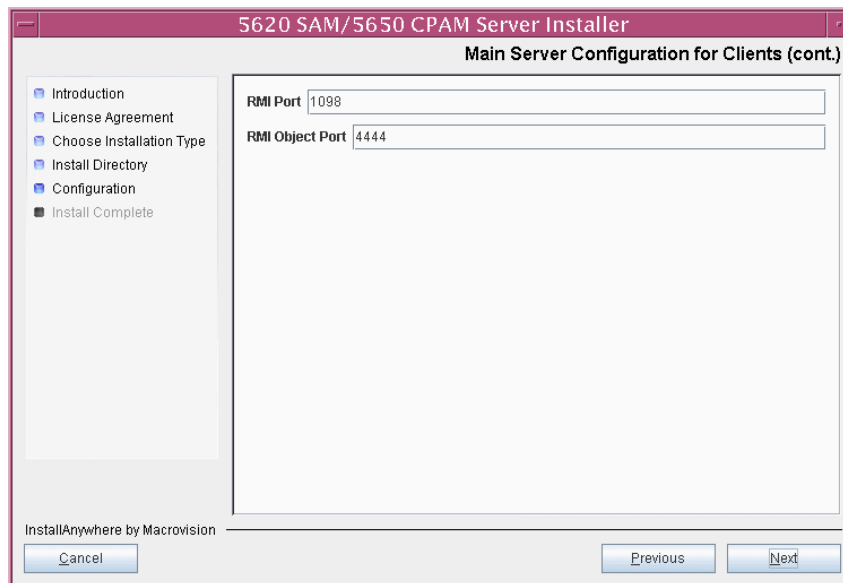
InstallAnywhere by Macrovision

Cancel Previous Next

- vii Click on the Next button.

- 68 Configure the following parameters shown in Figure 3-47, then click on the Next button:
- RMI Port (typically 1098)
 - RMI Object Port (typically 4444)

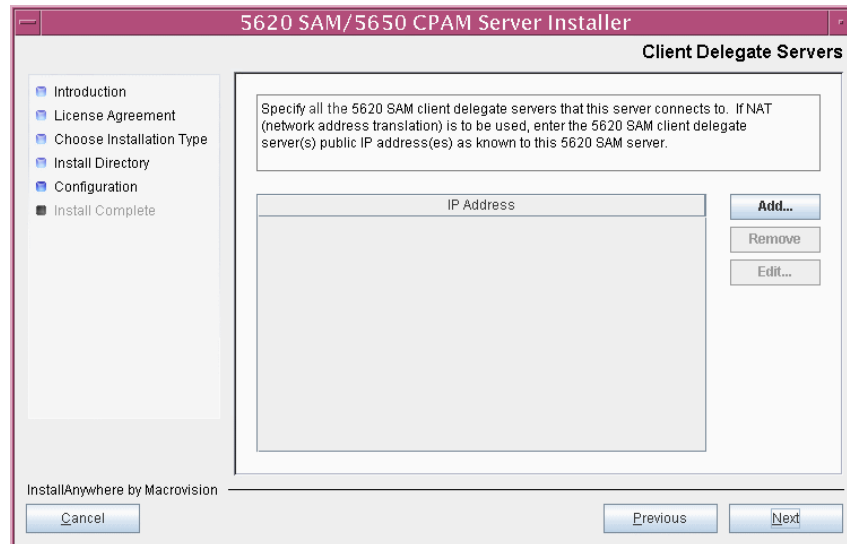
Figure 3-47 Main Server Configuration for Clients (cont.)



- 69 The panel in Figure 3-48 is displayed if you select “Client Delegate Server Supported” in step 62. Otherwise, go to step 70.

Click on the Add button to specify the client delegate server IP addresses, as required. If NAT is used between the 5620 SAM server and client delegate servers, specify the public IP address. Click on the Next button.

Figure 3-48 Client Delegate Servers



70 Perform one of the following to specify where the 5620 SAM user documentation is to be stored.

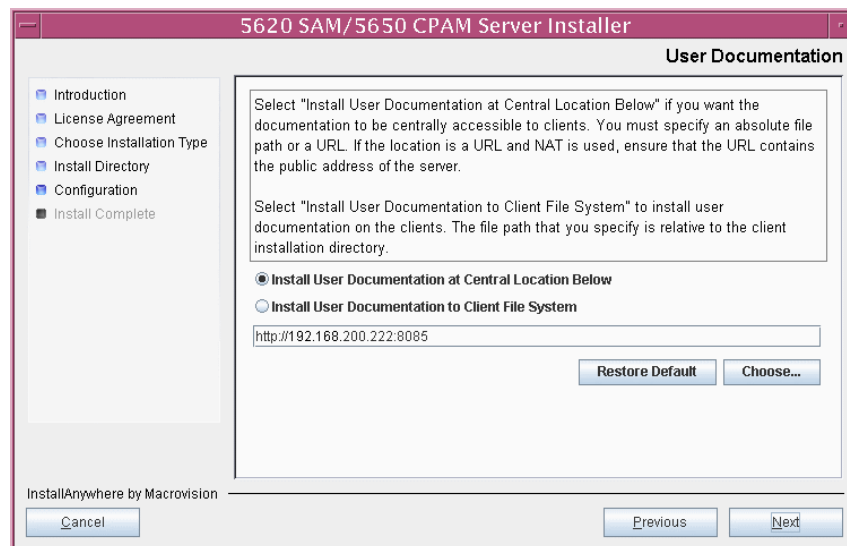
- a To store the documentation in a central location that is available to all clients, perform the following steps.
 - i Select the “Install User Documentation at Central Location Below” parameter, as shown in Figure 3-49.
 - ii To accept the default user documentation location that is displayed, go to step 71.



Note — If NAT is to be used between the 5620 SAM server and clients, you must update the default location using the public IP address of the server, or the documentation is not accessible to clients.

- iii Specify a location for the 5620 SAM user documentation in the field below the parameters.
- iv Copy the contents of the User_Documentation directory on the 5620 SAM software DVD-ROM to the location specified in step iii.
- v Click on the Next button. A dialog box appears.
- vi Click on the OK button.

Figure 3-49 User Documentation



- For example, if the installation directory is `/opt/5620sam/client` and you specify `Documents` as the location, the documentation is installed in the following directory:



- 71 Click on the Next button.
- 72 Specify whether the 5620 SAM configuration includes a 5650 CPAM server, as shown in Figure 3-50. If it does, enter the 5650 CPAM license key provided by Alcatel-Lucent. Include the dashes in the key. Click on the Next button.

5620 SAM/5650 CPAM Server Installer

License Information for 5650 CPAM Server

- Introduction
- License Agreement
- Choose Installation Type
- Install Directory
- Configuration
- Install Complete

☒ Include 5650 CPAM Server License Information

0000-000000-000000-000000-000000-000000-000000-000000-000000-000000-000000-000000

Cancel Previous Next

InstallAnywhere by Macrovision

73 Configure the following parameters shown in Figure 3-51, then click on the Next button:

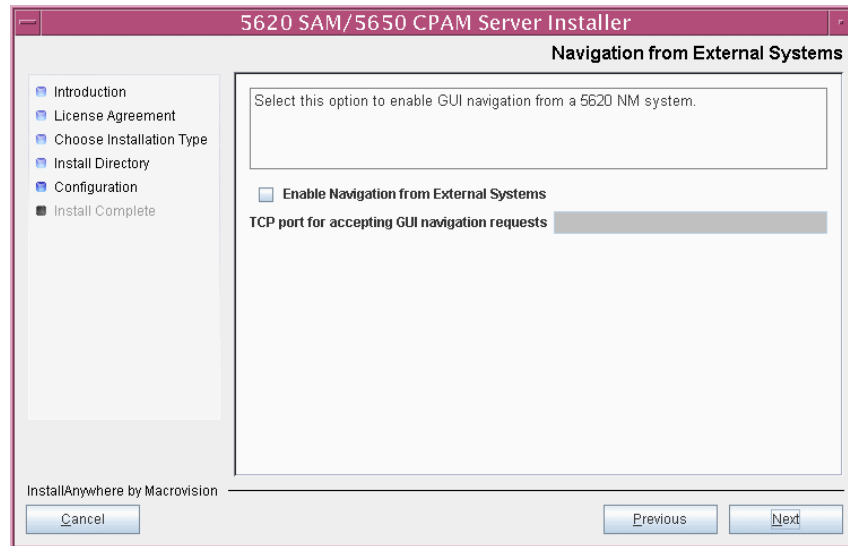
- NAT (network address translation) Used
Select this parameter only if NAT is to be used between the 5620 SAM main server and the managed network.
- SNMP Trap Receiving IPv4 Address
- SNMP Trap Receiving IPv6 Address
- SNMP Trap Receiving Port (typically 162)
- Trap Log Id (typically 98)

Figure 3-51 SNMP Configuration

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window with the 'SNMP Configuration' tab selected. On the left is a navigation pane with the following items: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (selected), and Install Complete. The main area contains a text box with instructions: 'If NAT (network address translation) is to be used, enter the 5620 SAM main server's public IP address as known to the devices within the managed network.' Below this are two unchecked checkboxes: 'NAT (network address translation) Used' and 'IPv6 Address Used'. There are four input fields: 'SNMP Trap Receiving IPv4 Address' with the value '192.168.200.122', 'SNMP Trap Receiving IPv6 Address' (empty), 'SNMP Trap Receiving Port' with the value '162', and 'Trap Log Id' with the value '98'. At the bottom left is the text 'InstallAnywhere by Macrovision' and a 'Cancel' button. At the bottom right are 'Previous' and 'Next' buttons.

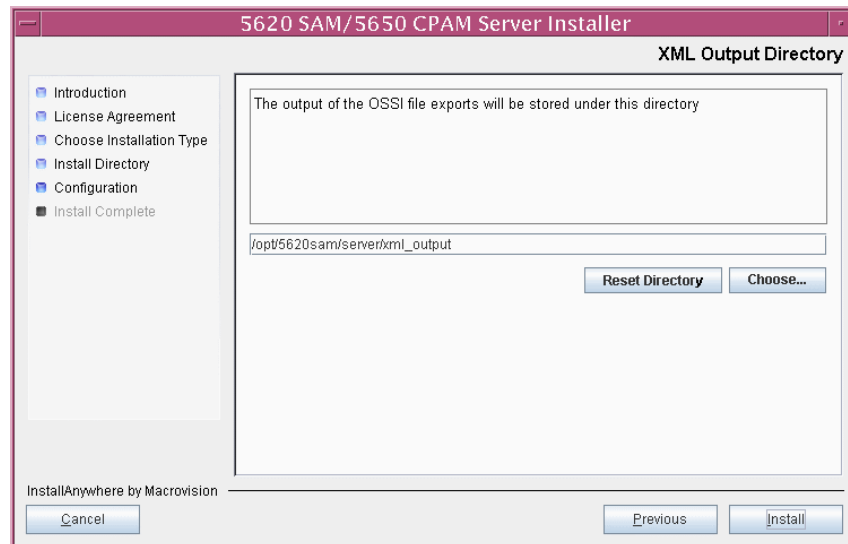
- 74 If you require 5620 SAM client navigation from a 5620 NM system, select the “Enable Navigation from External Systems” parameter shown in Figure 3-52 and specify the TCP port that the client is to use for accepting navigation requests. Click on the Next button.

Figure 3-52 Navigation from External Systems



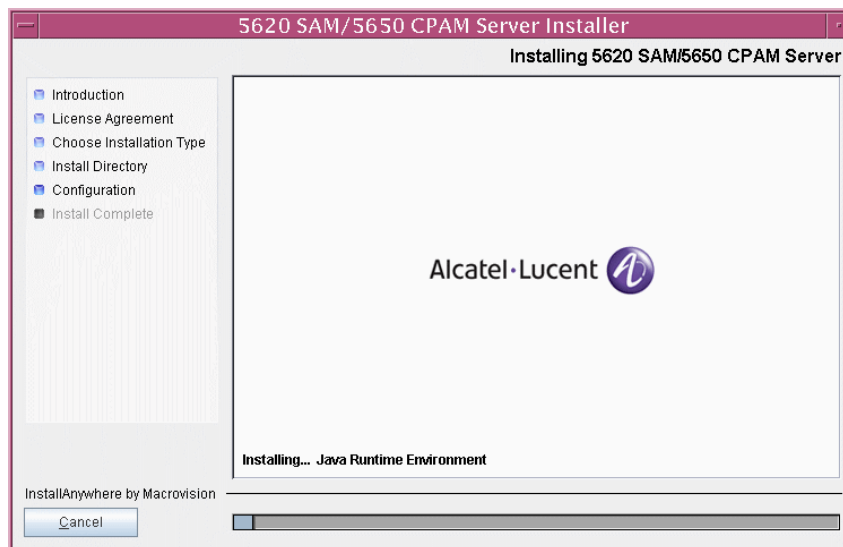
- 75 Specify an OSS XML output location (typically /opt/5620sam/server/xml_output), as shown in Figure 3-53. Click on the Install button to begin the server installation.

Figure 3-53 XML Output Directory



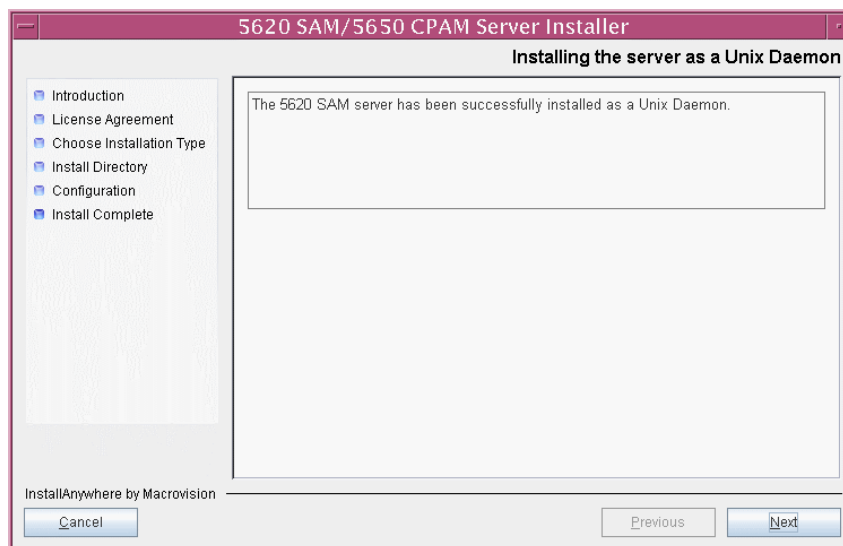
The next panel displays installation progress, as shown in Figure 3-54.

Figure 3-54 Installing 5620 SAM/5650 CPAM Server



- 76 The 5620 SAM server is installed as a UNIX daemon, as shown in Figure 3-55. Click on the Next button.

Figure 3-55 Installing the Server as a Unix Daemon

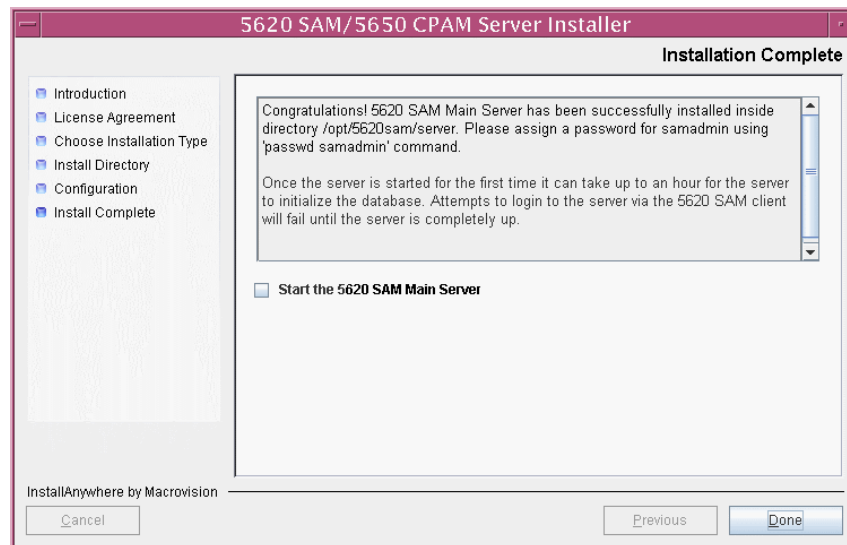


- 77 When the server installation is complete, as shown in Figure 3-56, configure the “Start the 5620 SAM Main Server” parameter to specify whether you want the server to start immediately after the installation.



Caution — If the 3GPP OSS interface is enabled in step 67, ensure that the “Start the 5620 SAM Main Server” parameter is not selected.

Figure 3-56 Installation Complete



- 78 View the panel text to see whether it states that you must assign a password to samadmin, as shown in Figure 3-56. This information is required in step 80.
- 79 Click on the Done button to close the server installer. If you specified that the server is to start after installation, the server starts. Initial server startup can take twenty minutes or more.
- 80 If this is the first 5620 SAM server installation on the station, the installer creates a user account called samadmin for 5620 SAM system administration.

If you must assign a password to samadmin, as determined in step 78, perform the following steps.

- i Enter the following at the CLI prompt:

```
# passwd samadmin
```

The following prompt is displayed:

```
New Password:
```

- ii Enter the new password and press ↵.

The following prompt is displayed:

```
Confirm New Password:
```

- iii Enter the new password again and press ↵. The password is changed.
 - iv Record the new password and store it in a secure location.
- 81 If the 3GPP OSS interface is enabled in step 67, perform the following steps.
- i Open the *path*/nms/cnbi/home/config/cnbi.properties file using a plain-text editor

where *path* is the 5620 SAM main server installation location, typically *opt/5620sam/server*
 - ii Locate the following line:

`CNBI.SAMO.USER=`
 - iii Edit the line to read:

`CNBI.SAMO.USER=3GPP_OSS_user_name`

where *3GPP_OSS_user_name* is the user name that OSS applications must send in requests to the interface
 - iv Locate the following line:

`CNBI.SAMO.PASSWORD=`
 - v Edit the line to read:

`CNBI.SAMO.PASSWORD=3GPP_OSS_password`

where *3GPP_OSS_password* is the MD5-encrypted user password that OSS applications must send in requests to the interface
- 82 If you specified that the server is to start after installation, perform the following steps to verify that the 5620 SAM server is started.
- i Enter the following at the CLI prompt to switch to the samadmin user:

`# su - samadmin ↵`
 - ii Enter the following at the CLI prompt:

`bash$ path/nms/bin/nmsserver.bash -s nms_status ↵`

where *path* is the 5620 SAM server installation location, typically */opt/5620sam/server*

The command returns server status information.

If the main server is not completely started, the first line of status information is the following:

`Main Server is not ready...`

The 5620 SAM server is completely started when the command returns the following line of output:

```
-- SAM Server is UP
```

- iii If the command output indicates that the server is not completely started, wait five minutes and enter the command again to check the output.



Note — Do not proceed to the next step until the server is completely started.

- 83 If you specified not to start the server immediately after the installation, perform the following steps to start the 5620 SAM main server manually.

- i Log in to the main server station as the samadmin user.
- ii Enter the following at the CLI prompt to change to the server binary directory:

```
bash$ cd path/nms/bin ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

- iii Enter the following at the CLI prompt to start the 5620 SAM server software:

```
bash$ ./nmsserver.bash start ↵
```

- iv Enter the following at the CLI prompt:

```
bash$ path/nms/bin/nmsserver.bash -s nms_status ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

The command returns server status information.

If the main server is not completely started, the first line of status information is the following:

```
Main Server is not ready...
```

The 5620 SAM server is completely started when the command returns the following line of output:

```
-- SAM Server is UP
```

- v If the command output indicates that the server is not completely started, wait five minutes and enter the command again to check the output.



Note — Do not proceed to the next step until the server is completely started.

- 84 Close the console window.

Install client

- 85 Perform one of the following to install a 5620 SAM client.
- Perform Procedure 2-3 or 2-4 to install a single-user client on a Windows station.
 - Perform Procedure 3-2 or 3-3 to install a single-user client on a Solaris station.
 - Perform Procedure 3-4 to install a client delegate server.
- 86 If the 3GPP OSS interface is enabled in step 67, perform the following steps.
- Log in to a 5620 SAM GUI client as the admin user.
 - Create a user account for 3GPP OSS interface access. Observe the following when you create the account:
 - The user name must be the user name specified in step 81.
 - The password must be the password specified in step 81.
 - The user account requires full permissions on the fm and oss packages.

See the *5620 SAM User Guide* for information about creating 5620 SAM user accounts.

Procedure 3-2 To install a 5620 SAM single-user client on Solaris using a web browser

Perform this procedure to install the 5620 SAM single-user client software on a Solaris station using a web browser.

You can also install a 5620 SAM single-user client on Windows for use with a 5620 SAM system on Solaris. See chapter 2 for information about installing a 5620 SAM client on a Windows station.



Note 1 — You require local user privileges on the client station to perform this procedure.

Note 2 — The 5620 SAM main server to which the single-user client connects must be running before you perform this procedure.

- Log in to the station that is to be the single-user client station as a user with local privileges.
- The client installer requires Java version 6.0 or later. Perform one of the following to ensure that the correct Java version is installed.
 - If an earlier version of Java is installed on the client station, ensure that the client station has Internet access so that the installer can download and install the later version.
 - If Java is not installed on the client station, visit <http://java.com> to download and install Java.

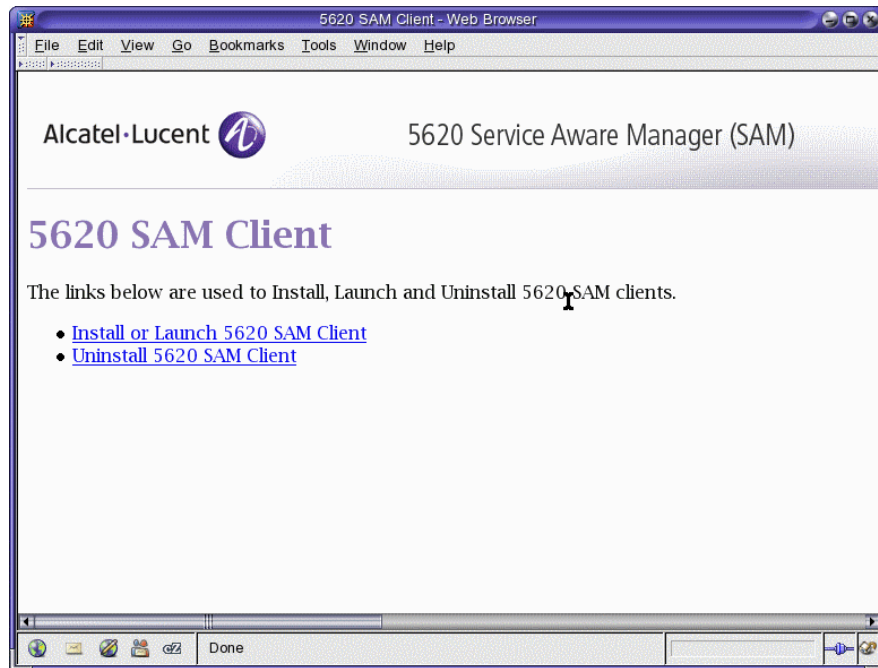
- 3 Use a web browser on the client station to open the following page on the 5620 SAM main server:

<http://server:8085/client>

where *server* is the IP address or hostname of the 5620 SAM main server

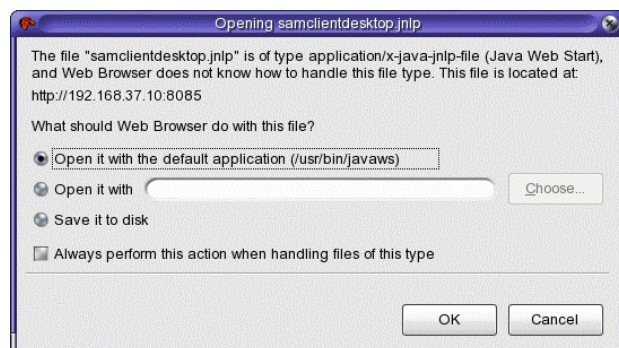
The page shown in Figure 3-57 is displayed.

Figure 3-57 5620 SAM client page



- 4 Click on the "Install or Launch 5620 SAM Client" link. The form shown in Figure 3-58 is displayed.

Figure 3-58 Opening samclientdesktop.jnlp



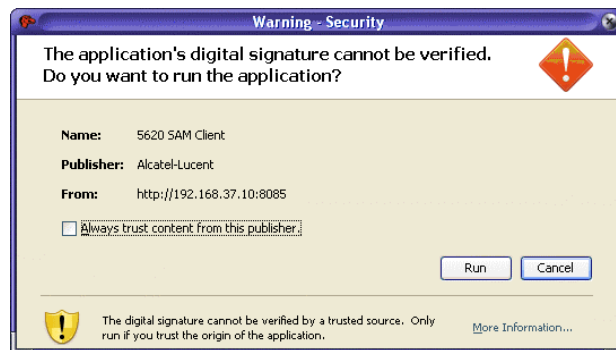
- 5 Ensure that “Open it with the default application” is selected, then click on the OK button. A Java installer opens, as shown in Figure 3-59, and begins to download components.

Figure 3-59 Java Web Start



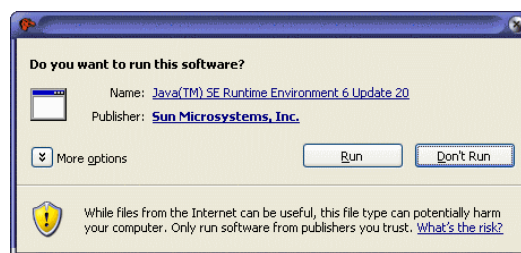
- 6 If a security warning like the one shown in Figure 3-60 is displayed, click on the Run button.

Figure 3-60 Warning - Security



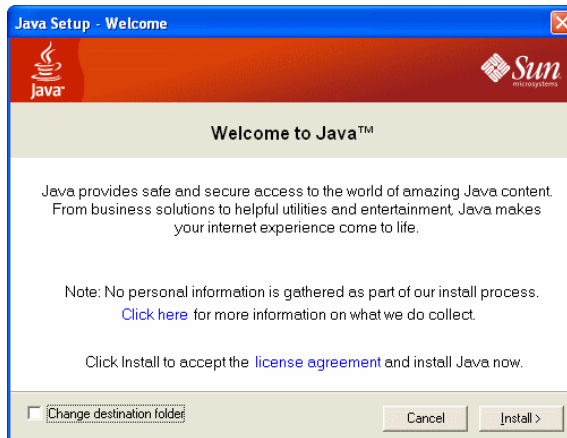
- 7 If a security warning like the one shown in Figure 3-61 is displayed, click on the Run button.

Figure 3-61 Java - Security Warning



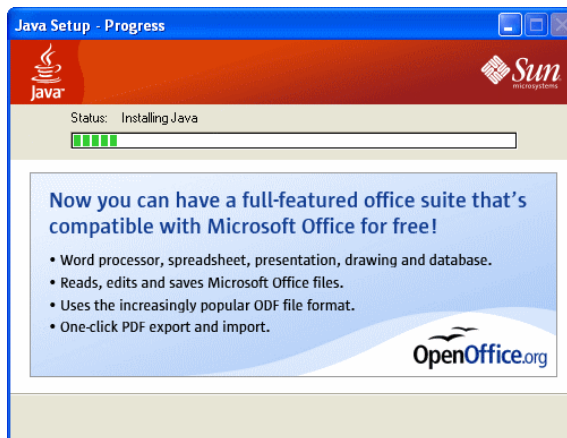
- 8 If the Java setup utility shown in Figure 3-62 opens, the installed Java version requires an update. Click on the Install button. Otherwise, go to step 10.

Figure 3-62 Java Setup - Welcome



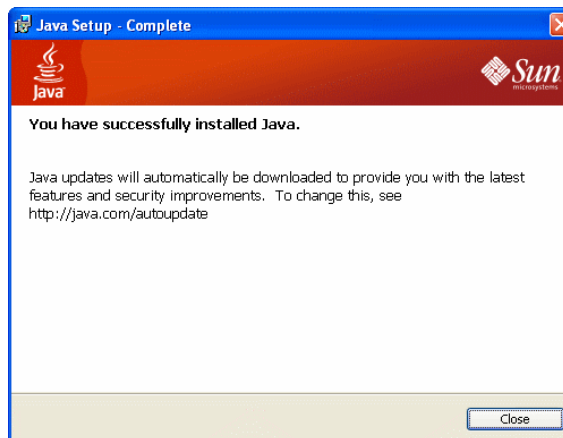
The setup utility displays installation progress, as shown in Figure 3-63.

Figure 3-63 Java Setup Progress



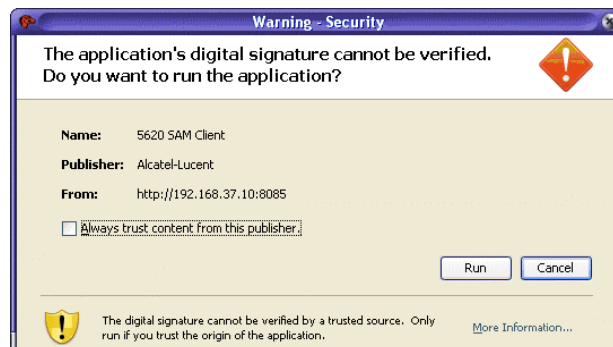
- 9 When the panel shown in Figure 3-63 is displayed, the Java setup is complete. Click on the Close button.

Figure 3-64 Java Setup - Complete



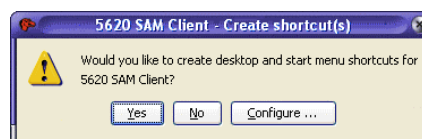
- 10 If a security warning like the one shown in Figure 3-65 is displayed, click on the Run button.

Figure 3-65 Warning - Security



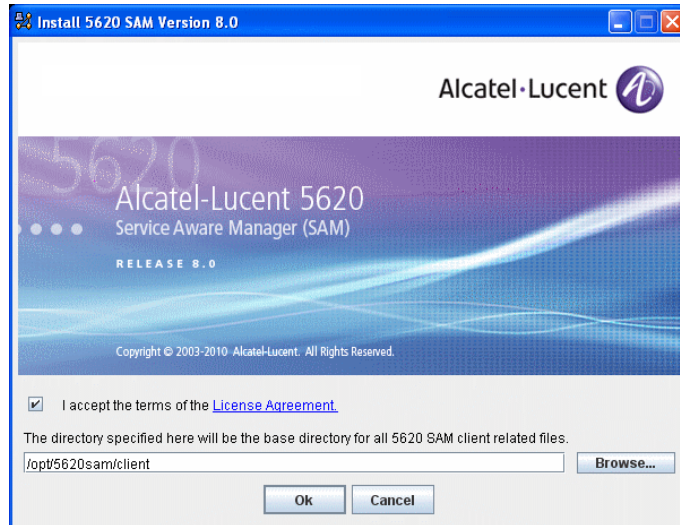
- 11 The 5620 SAM client installer opens, as shown in Figure 3-66. Click on the Yes or No button, as required, to indicate whether you want the installer to create shortcuts for the 5620 SAM client application.

Figure 3-66 5620 SAM Client - Create shortcut(s)



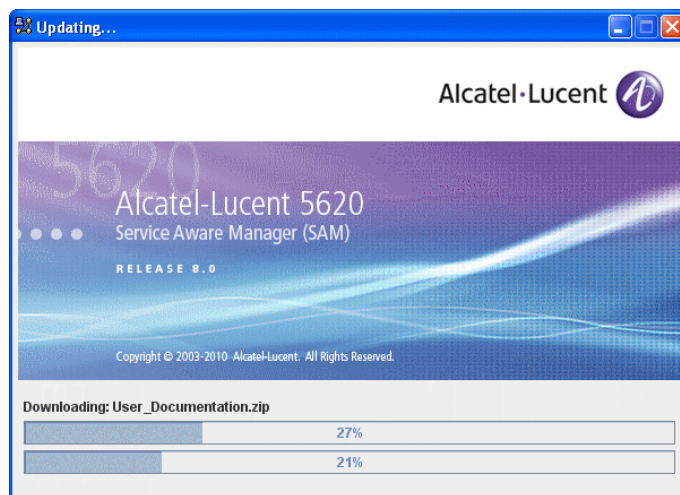
- 12 Perform the following steps when the panel shown in Figure 3-67 is displayed.
 - i Select the check box to accept the terms of the license agreement.
 - ii If required, specify a client installation location other than the default by typing the path or by using the Browse button.
 - iii Click on the OK button. The 5620 SAM client installation begins.

Figure 3-67 Install 5620 SAM Version 8.0



The panel shown in Figure 3-78 is displayed. The panel shows installation progress using separate bars to indicate the overall and current task progress.

Figure 3-68 Installation progress



When the installation is complete, the client installer closes and the newly installed 5620 SAM client GUI opens.

- 13 Log in to the 5620 SAM client GUI.



Note — The default 5620 SAM client login credentials are the following:

- Login Name—admin
- Password—5620Sam!

Procedure 3-3 To install a 5620 SAM single-user client on Solaris using the software DVD-ROM

Perform this procedure to install the 5620 SAM client software on a Solaris station from the 5620 SAM software DVD-ROM for local access by one user at a time.

You can also install a 5620 SAM single-user client on Windows for use with a 5620 SAM system on Solaris. See chapter 2 for information about installing a 5620 SAM client on a Windows station.



Note 1 — You require local user privileges on the client station to perform this procedure.

Note 2 — The 5620 SAM main server to which the single-user client connects must be running before you perform this procedure.

Install auto-client update utility

- 1 Log in to the station that is to be the single-user client station as a user with local privileges.
- 2 Open a console window.
- 3 Place the 5620 SAM software DVD-ROM in a DVD-ROM drive.
- 4 Navigate to the DVD-ROM drive.

5 Perform one of the following to open the 5620 SAM client installer.

a On a Sun SPARC station:

i Enter the following at the CLI prompt:

```
bash$ cd Solaris ↵
```

ii Enter the following at the CLI prompt:

```
bash$ ./ClientInstall_SAM_8_0_revision.bin ↵
```

where

revision is the revision identifier, such as R1, R3, or another descriptor

b On a Sun X86-based station:

i Enter the following at the CLI prompt:

```
bash$ cd Solarisx86 ↵
```

ii Enter the following at the CLI prompt:

```
bash$ ./ClientInstall_x86_SAM_8_0_revision.bin ↵
```

where

revision is the revision identifier, such as R1, R3, or another descriptor

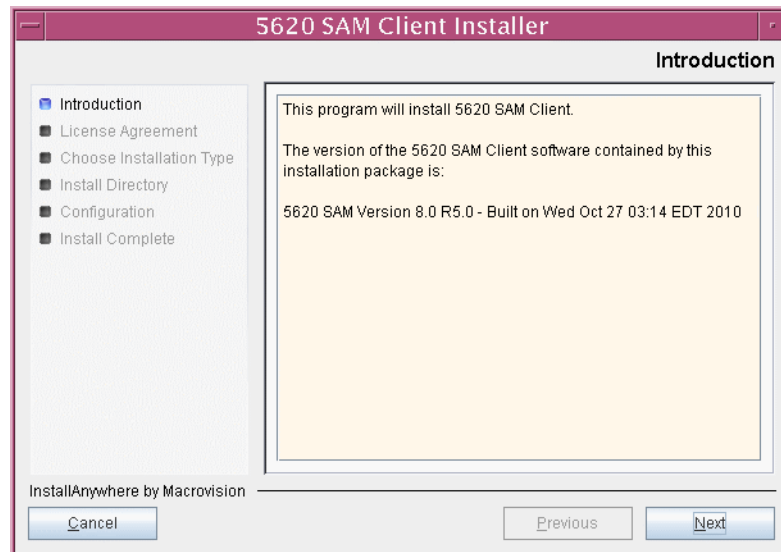
The splash screen shown in Figure 3-69 opens.

Figure 3-69 5620 SAM installer



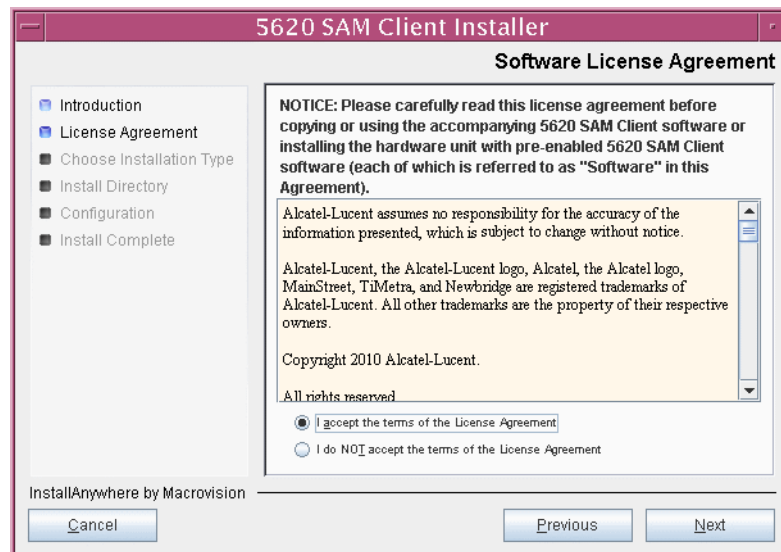
- 6 The 5620 SAM client installer opens, as shown in Figure 3-70. The left pane indicates installation progress. The right pane displays release information about the software. Click on the Next button.

Figure 3-70 Introduction



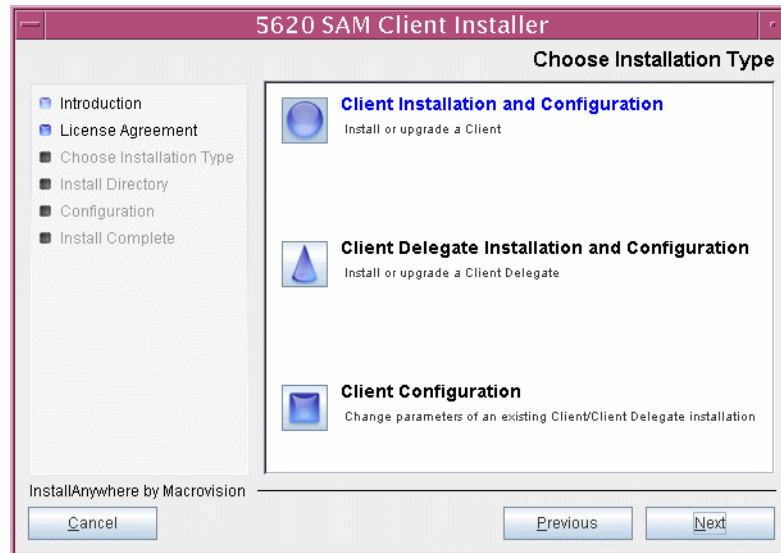
- 7 Review and accept the terms of the license agreement shown in Figure 3-71. Click on the Next button.

Figure 3-71 Software License Agreement



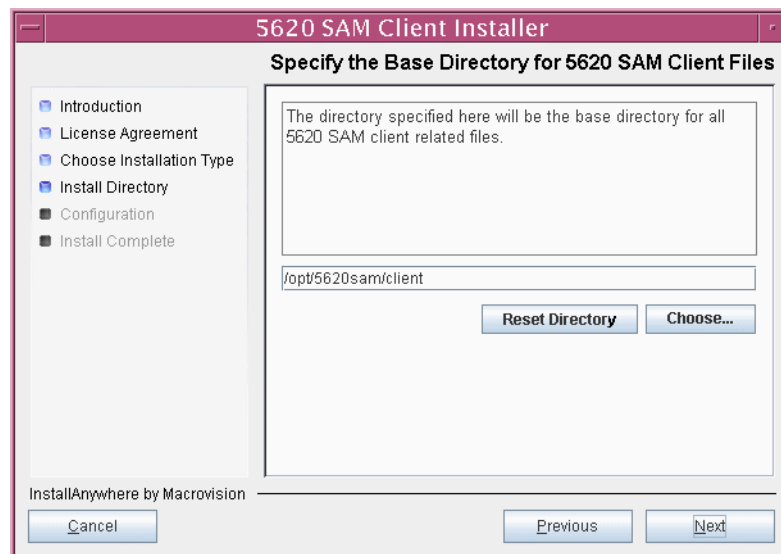
- 8 Select Client Installation and Configuration, as shown in Figure 3-72. Click on the Next button.

Figure 3-72 Choose Installation Type



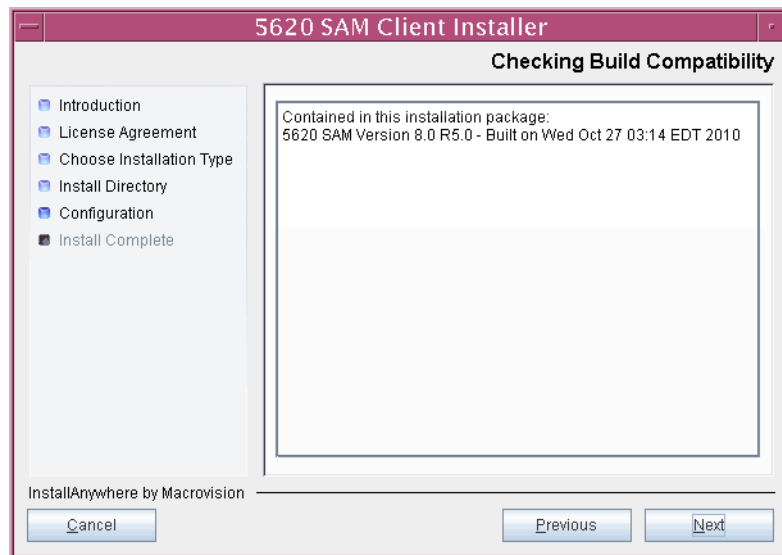
- 9 Specify a base directory in which to install the 5620 SAM client software (typically /opt/5620sam/client) as shown in Figure 3-73. Click on the Next button.

Figure 3-73 Specify the Base Directory for 5620 SAM Client Files



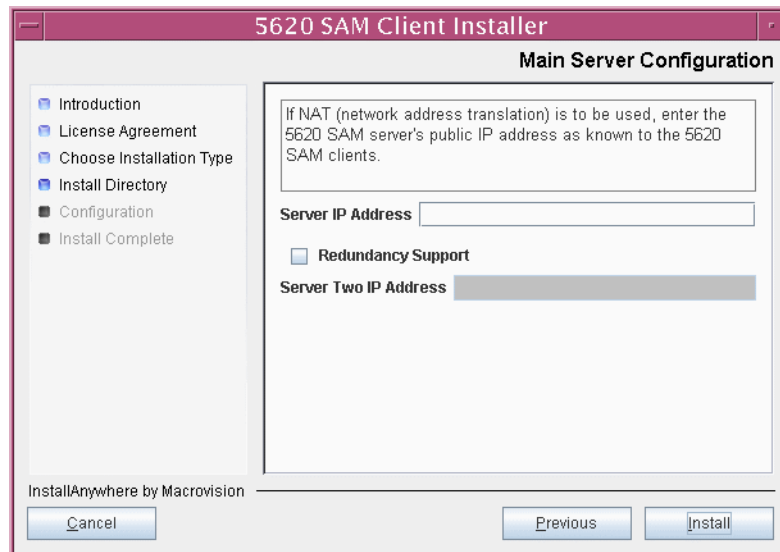
- 10 As shown in Figure 3-74, the installer indicates which release of 5620 SAM software is to be installed. Verify the information. Click on the Next button.

Figure 3-74 Checking Build Compatibility



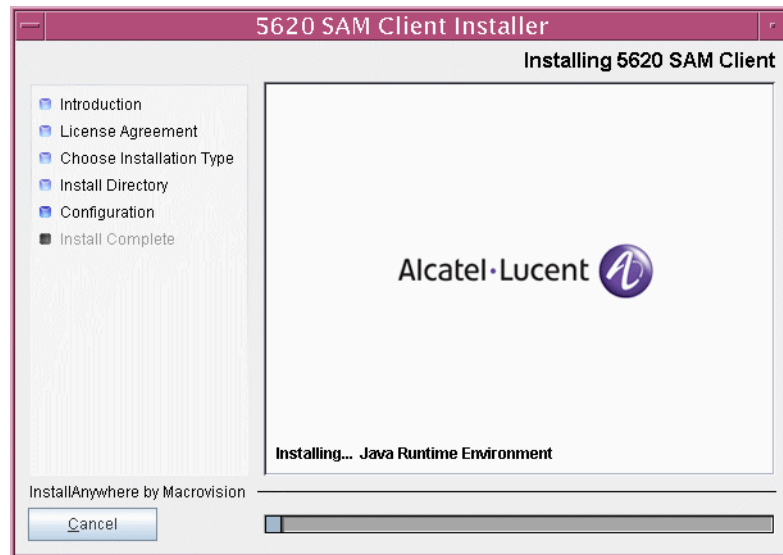
- 11 Perform one of the following.
 - a Configure the 5620 SAM client for use with a standalone 5620 SAM server and database.
 - i Ensure that the “Redundancy Support” parameter is disabled, as shown in Figure 3-75.
 - ii Configure the “Server IP Address” parameter using the IP address that the client must use to reach the 5620 SAM server.
 - iii Click on the Install button to begin the auto-client update utility installation.
 - b Configure the 5620 SAM client for use with a redundant 5620 SAM server and database.
 - i Select the “Redundancy Support” parameter shown in Figure 3-75.
 - ii Configure the “Server IP Address” parameter using the IP address that the client must use to reach the primary 5620 SAM server.
 - iii Configure the “Server Two IP Address” parameter using the IP address that the client must use to reach the standby 5620 SAM server.
 - iv Click on the Install button to begin the auto-client update utility installation.

Figure 3-75 Main Server Configuration



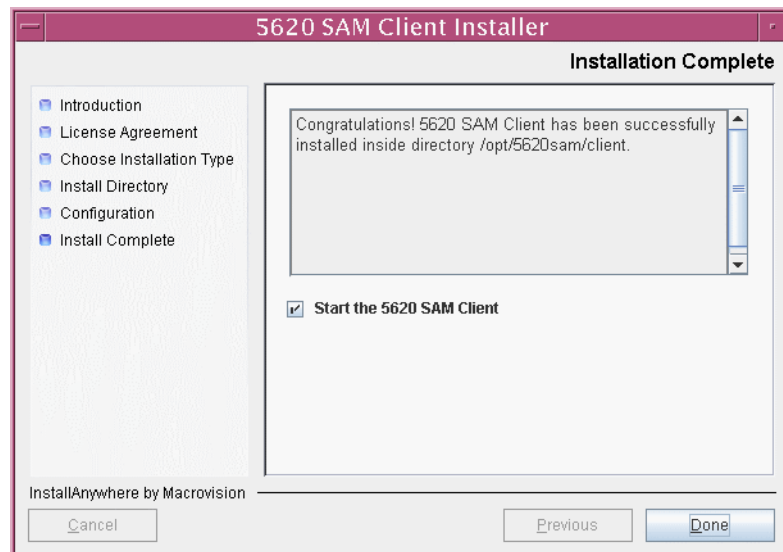
The next panel displays installation progress, as shown in Figure 3-76.

Figure 3-76 Installing 5620 SAM Client



- 12 When the auto-client update utility installation is complete, as shown in Figure 3-77, configure the “Start the 5620 SAM Client” parameter to specify whether you want the auto-client update utility to start immediately after the installation.

Figure 3-77 Installation Complete

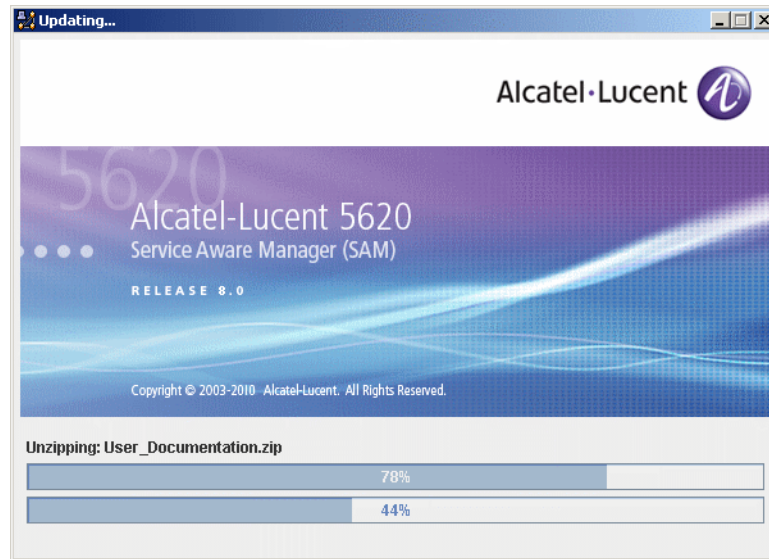


Install 5620 SAM client software using auto-client update utility

- 13 Click on the Done button to close the client installer.

If you specified that the auto-client update utility is to start after installation, the utility starts, detects the available client software on the 5620 SAM server, begins downloading files, and displays the panel shown in Figure 3-78. The panel uses separate bars to indicate the overall and current task progress.

Figure 3-78 Installation progress



When the installation is complete, the auto-client update utility closes and the 5620 SAM client login form opens.

- 14 If you specified not to start the auto-client update utility immediately after the installation, start the 5620 SAM auto-client update utility manually later by entering the following at the CLI prompt:



Note — You must be logged in as the same user that installed the auto-client update utility.

```
# path/nms/bin/nmsclient.bash ↵
```

where *path* is the 5620 SAM client installation location, typically /opt/5620sam/client

The utility detects the available client software on the 5620 SAM server, begins downloading files, and displays the panel shown in Figure 3-78. The panel uses separate bars to indicate the overall and current task progress.

When the installation is complete, the auto-client update utility closes and the 5620 SAM client login form opens.

- 15 Log in to the 5620 SAM client GUI to ensure that the client and server are communicating properly.



Note — The default 5620 SAM client login credentials are the following:

- Login Name—admin
- Password—5620Sam!

Procedure 3-4 To install a 5620 SAM client delegate server

Perform this procedure to install a 5620 SAM client delegate server. A client delegate server supports multiple client GUI sessions using display redirection.

Consider the following before you install a client delegate server.

- A separate terminal using X.11 or native X can display a 5620 SAM client GUI.
- You cannot use X emulation software to display a 5620 SAM client GUI.



Note 1 — You require root or root-equivalent user privileges on the client delegate server station to perform this procedure.

Note 2 — The 5620 SAM main server to which the client delegate server connects must be running before you perform this procedure.

Install auto-client update utility

- 1 Log in to the station that is to be the client delegate server station as a user with root or root-equivalent privileges.
- 2 Open a console window.
- 3 Place the 5620 SAM software DVD-ROM in a DVD-ROM drive.
- 4 Navigate to the DVD-ROM drive.

5 Perform one of the following to open the 5620 SAM client installer.

a On a Sun SPARC station:

i Enter the following at the CLI prompt:

```
bash$ cd Solaris ↵
```

ii Enter the following at the CLI prompt:

```
bash$ ./ClientInstall_SAM_8_0_revision.bin ↵
```

where

revision is the revision identifier, such as R1, R3, or another descriptor

b On a Sun X86-based station:

i Enter the following at the CLI prompt:

```
bash$ cd Solarisx86 ↵
```

ii Enter the following at the CLI prompt:

```
bash$ ./ClientInstall_x86_SAM_8_0_revision.bin ↵
```

where

revision is the revision identifier, such as R1, R3, or another descriptor

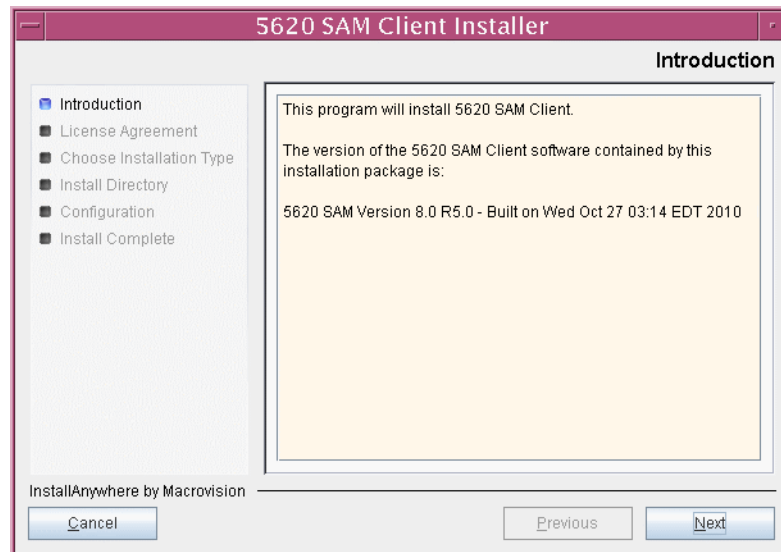
The splash screen shown in Figure 3-79 opens.

Figure 3-79 5620 SAM installer



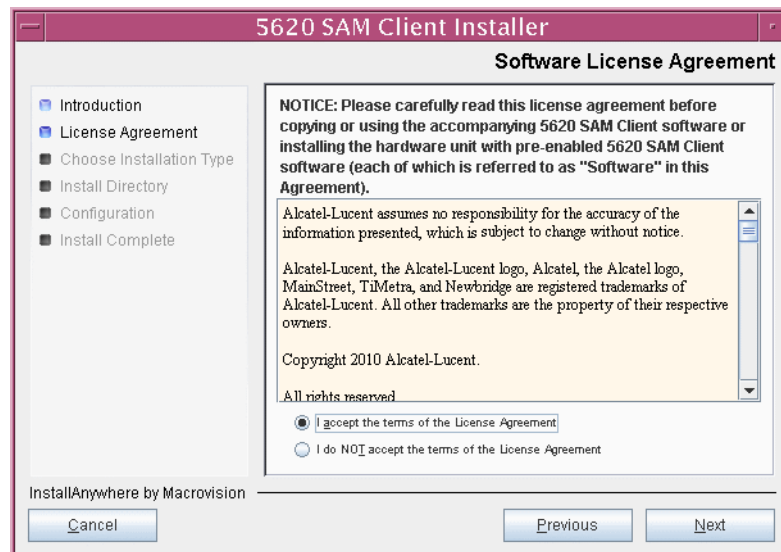
- 6 The 5620 SAM client installer opens, as shown in Figure 3-80. The left pane indicates installation progress. The right pane displays release information about the software. Click on the Next button.

Figure 3-80 Introduction



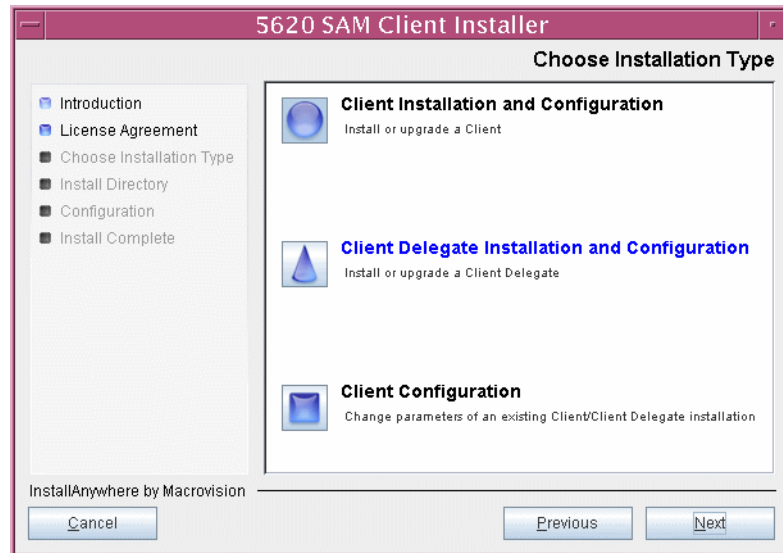
- 7 Review and accept the terms of the license agreement shown in Figure 3-81. Click on the Next button.

Figure 3-81 Software License Agreement



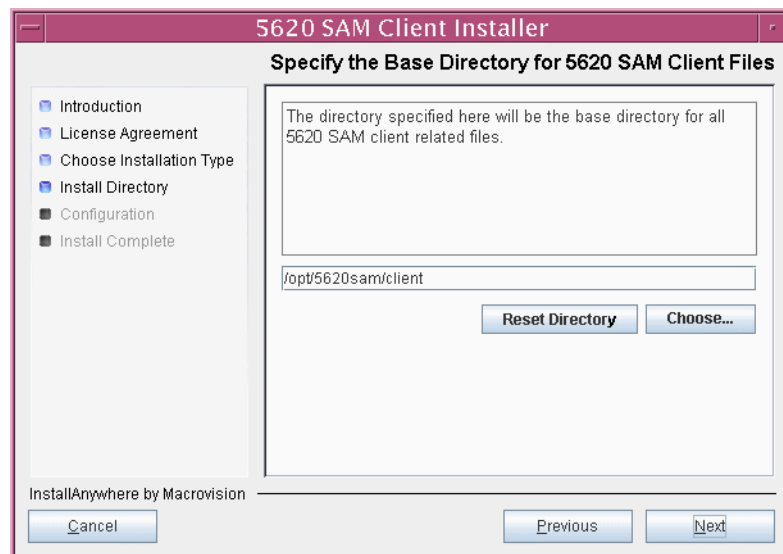
- 8 Select Client Delegate Installation and Configuration, as shown in Figure 3-82. Click on the Next button.

Figure 3-82 Choose Installation Type



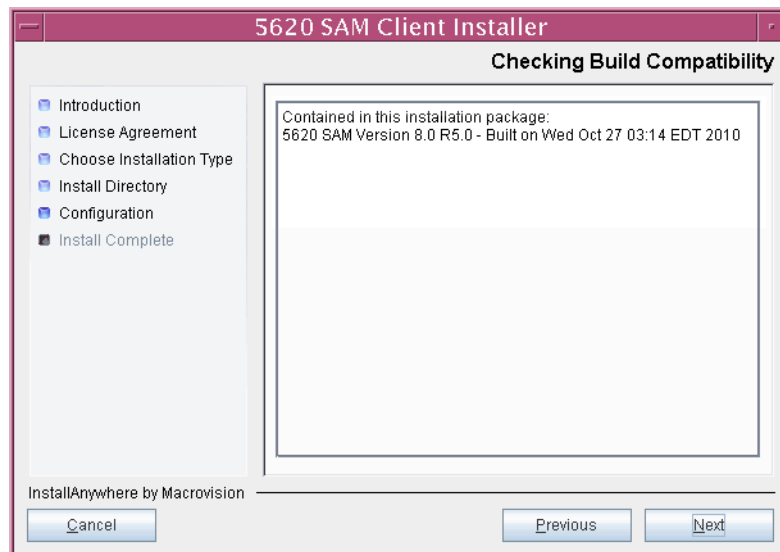
- 9 Specify a base directory in which to install the 5620 SAM client delegate software (typically /opt/5620sam/client) as shown in Figure 3-83. Click on the Next button.

Figure 3-83 Specify the Base Directory for 5620 SAM Client Files



- 10 As shown in Figure 3-84, the installer indicates which release of 5620 SAM software is to be installed. Verify the information. Click on the Next button.

Figure 3-84 Checking Build Compatibility



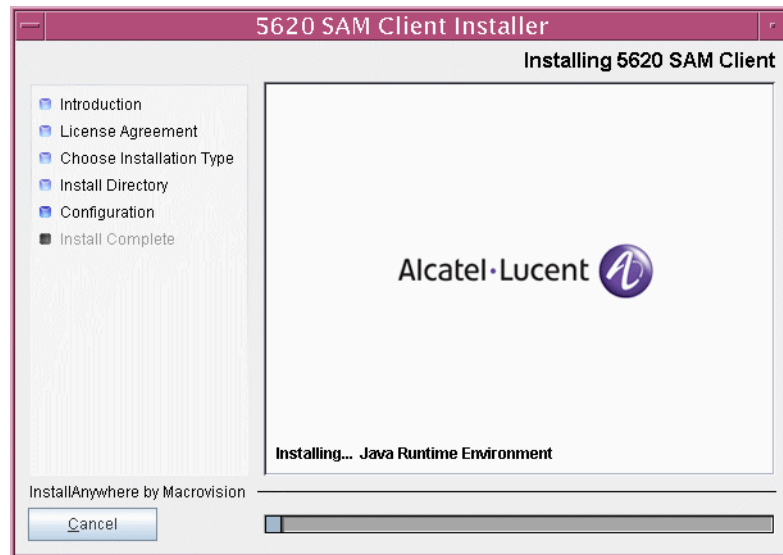
- 11 Perform one of the following.
 - a Configure the 5620 SAM client delegate server for use with a standalone 5620 SAM server and database.
 - i Ensure that the “Redundancy Support” parameter is disabled, as shown in Figure 3-85.
 - ii Configure the “Server IP Address” parameter using the IP address that the client delegate must use to reach the 5620 SAM server.
 - iii Click on the Install button to begin the auto-client update utility installation.
 - b Configure the 5620 SAM client delegate server for use with a redundant 5620 SAM server and database.
 - i Select the “Redundancy Support” parameter shown in Figure 3-85.
 - ii Configure the “Server IP Address” parameter using the IP address that the client delegate server must use to reach the primary 5620 SAM server.
 - iii Configure the “Server Two IP Address” parameter using the IP address that the client delegate server must use to reach the standby 5620 SAM server.
 - iv Click on the Install button to begin the auto-client update utility installation.

Figure 3-85 Main Server Configuration

The screenshot shows the '5620 SAM Client Installer' window with the 'Main Server Configuration' tab selected. On the left is a navigation pane with the following items: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (selected), and Install Complete. The main area contains a text box with the instruction: 'If NAT (network address translation) is to be used, enter the 5620 SAM server's public IP address as known to the 5620 SAM clients.' Below this are two input fields: 'Server IP Address' and 'Server Two IP Address'. A checkbox labeled 'Redundancy Support' is positioned between the two fields. At the bottom of the window, there is a status bar that reads 'InstallAnywhere by Macrovision' and three buttons: 'Cancel', 'Previous', and 'Install'.

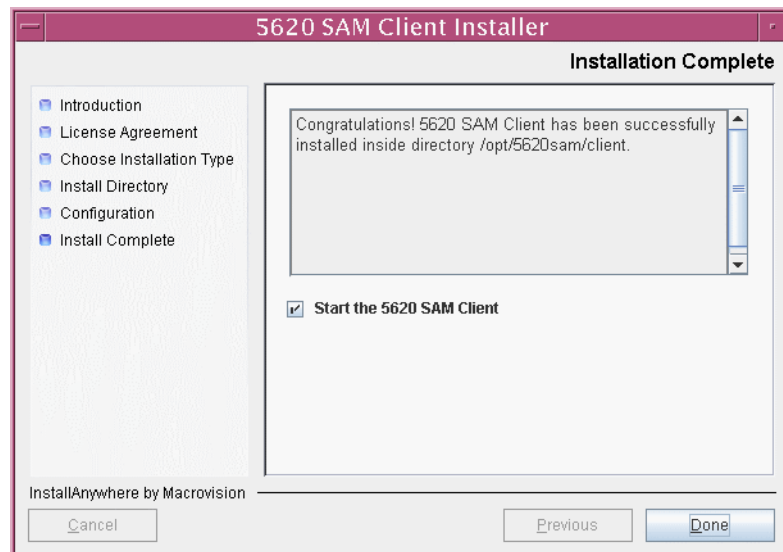
The next panel displays installation progress, as shown in Figure 3-86.

Figure 3-86 Installing 5620 SAM Client



- 12 When the auto-client update utility installation is complete, as shown in Figure 3-87, ensure that the select the "Start the 5620 SAM Client" parameter is selected to specify that the auto-client update utility is to start immediately after the installation.

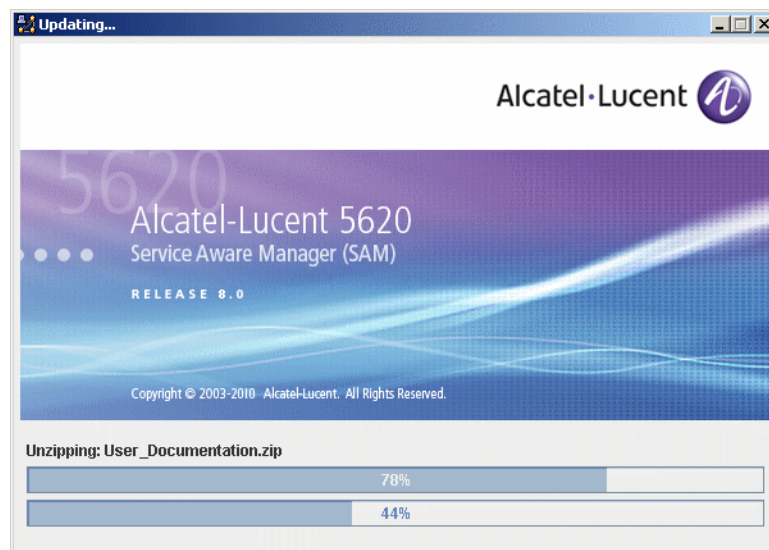
Figure 3-87 Installation Complete



Install 5620 SAM client delegate server software using auto-client update utility

- 13 Click on the Done button to close the client installer. The auto-client update utility detects the available client software on the 5620 SAM server, begins downloading files, and displays the panel shown in Figure 3-88. The panel uses separate bars to indicate the overall and current task progress.

Figure 3-88 Installation progress



When the installation is complete, the auto-client update utility closes and the 5620 SAM client login form opens.

- 14 Click on the Cancel button to close the 5620 SAM client login form.
- 15 The installer creates a user account called samadmin that is required for 5620 SAM system administration. You must assign a new password to this user account.

Perform the following steps to assign a new samadmin password.

- i Enter the following at the CLI prompt:

```
# passwd samadmin
```

The following prompt is displayed:

```
New Password:
```

- ii Enter the new password and press ↵.

The following prompt is displayed:

```
Confirm New Password:
```

- iii Enter the new password again and press ↵. The password is changed.
- iv Record the new password and store it in a secure location.

Transfer saved GUI preferences and table layouts to client delegate server

16 A client delegate server installation creates a UNIX user group named sam. A user that opens a 5620 SAM client session through the client delegate server must belong to this user group. Add each user that is to use the client delegate server to the user group named sam.

17 Perform the following steps to preserve the saved GUI preferences and table layouts for each Solaris single-user client user that is to migrate from a single-user 5620 SAM client to the client delegate server.

- i Log in to the single-user client station as the user that installed the 5620 SAM single-user client or as a user that has read privileges on the client files and directories.
- ii On a 5620 SAM Release 6.1 or earlier Solaris client station, copy the following files in the *path/nms/config/guiPreference* directory to the *home_dir/5620SAM/guiPreference/SAM_user_name* directory on the client delegate server station:
 - *SAM_user_name.guiPreferences*
 - *SAM_user_name.tablePreferences*

where

path is the 5620 SAM client software installation location, typically /opt/5620sam/client

home_dir is the UNIX home directory of the user

SAM_user_name is the 5620 SAM login name of the user

- iii On a 5620 SAM Release 7.0 or later Solaris client station, copy the following files in the *home_dir/5620SAM/guiPreference/SAM_user_name* directory to the same directory on the client delegate server station:
 - *SAM_user_name.guiPreferences*
 - *SAM_user_name.tablePreferences*

where

home_dir is the UNIX home directory of the user

SAM_user_name is the 5620 SAM login name of the user

- 18 Perform the following steps to preserve the saved GUI preferences and table layouts for each Windows single-user client user that is to migrate from a single-user 5620 SAM client to the client delegate server.
- i Log in to the single-user client station as the user that installed the 5620 SAM single-user client or as a user that has read privileges on the client files and directories.
 - ii On a 5620 SAM Release 6.1 or earlier Windows client station, copy the following files in the *path*\nms\config\guiPreference directory to the *home_dir*\5620SAM\guiPreference*SAM_user_name* directory on the client delegate server station:
 - *SAM_user_name*.guiPreferences
 - *SAM_user_name*.tablePreferences

where
path is the 5620 SAM client software installation location, typically C:\5620sam\client
home_dir is the UNIX home directory of the user
SAM_user_name is the 5620 SAM login name of the user
 - iii On a 5620 SAM Release 7.0 or later Windows client station, copy the following files in the *home_dir*\5620SAM\guiPreference*SAM_user_name* directory to the same directory on the client delegate server station:
 - *SAM_user_name*.guiPreferences
 - *SAM_user_name*.tablePreferences

where
home_dir is the UNIX home directory of the user
SAM_user_name is the 5620 SAM login name of the user
- 19 Perform the following steps on each station that is to open a client GUI session through the client delegate server.
- i Open a remote login session on the client delegate server.
 - ii Configure display redirection from the client delegate server station to the current station.
 - iii Start the 5620 SAM client GUI by entering the following command at the CLI prompt:


```
# path/nms/bin/nmsclient.bash ↵
```

where *path* is the 5620 SAM client delegate server installation location, typically /opt/5620sam/client

The 5620 SAM client login form opens.
 - iv Log in to the 5620 SAM client GUI to ensure that the display is properly redirected and the GUI preferences for the 5620 SAM account, such as table layouts, are preserved.
-

Procedure 3-5 To add a client delegate server to an existing 5620 SAM system on Solaris

Perform this procedure to add a new 5620 SAM client delegate server to an existing 5620 SAM system on Solaris. You must use the 5620 SAM server configuration utility to add the new client delegate server to each main server configuration. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



Note — You require the following user privileges on each 5620 SAM main server station to perform this procedure:

- root or root-equivalent
- samadmin

- 1 Perform Procedure 3-4 to install the client delegate server software on the station that is to be the new client delegate server station.
- 2 If the 5620 SAM is deployed in a standalone configuration, go to step 5.
- 3 Perform steps 5 to 13 on the primary main server.
- 4 Perform steps 5 to 13 on the standby main server.
- 5 Log in to the main server station as the root user.
- 6 Open a console window.
- 7 Place the 5620 SAM software DVD-ROM in a DVD-ROM drive.
- 8 Navigate to the DVD-ROM drive.
- 9 Perform one of the following to open the 5620 SAM server configuration utility.
 - a On a Sun SPARC station:
 - i Enter the following at the CLI prompt:

```
# cd Solaris ↵
```
 - ii Enter the following at the CLI prompt:

```
# ./ServerInstall_SAM_8_0_revision.bin ↵
```

where
revision is the revision identifier, such as R1, R3, or another descriptor
 - b On a Sun X86-based station:
 - i Enter the following at the CLI prompt:

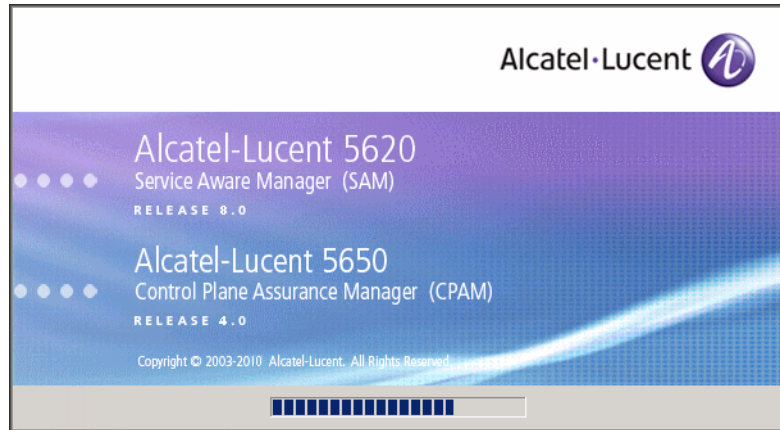
```
# cd Solarisx86 ↵
```
 - ii Enter the following at the CLI prompt:

```
# ./ServerInstall_x86_SAM_8_0_revision.bin ↵
```

where
revision is the revision identifier, such as R1, R3, or another descriptor

The splash screen shown in Figure 3-222 opens.

Figure 3-89 5620 SAM server configuration utility



- 10 Perform the following steps to add the new client delegate server to the main server configuration.
 - i Click on the Next button in the Introduction panel.
 - ii Accept the terms of the license agreement in the Software License Agreement panel.
 - iii Click on the Next button.
 - iv Choose Main Server Configuration in the Choose Installation Type panel.
 - v Click on the Next button.
 - vi Click on the Next button on each successive panel until the Additional Server Configuration panel is displayed.
 - vii Select the Client Delegate Server Supported parameter.
 - viii Click on the Next button until the Client Delegate Servers panel is displayed.
 - ix Click on the Add button.
 - x Configure the IP Address parameter.



Note — If NAT is used between the 5620 SAM main and client delegate servers, you must specify the public IP address of the client delegate server.

- xi Click on the OK button to save the information and close the form.
- xii Click on the Next button in each successive panel until the Installation Complete panel is displayed.
- xiii Click on the Done button to close the main server configuration utility.

- 11 Enter the following at the CLI prompt to switch to the samadmin user:

```
# su - samadmin ↵
```

- 12 Enter the following at the CLI prompt:

```
# path/nms/bin/nmserver.bash read_config ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

The main server reads the updated configuration and accepts client sessions from the new client delegate server.

- 13 Close the console window.
-

3.5 Workflow for redundant 5620 SAM installation on Solaris

The following is the sequence of high-level actions required to install a redundant 5620 SAM system on a Solaris platform. A section heading in quotation marks is a reference to a section in Procedure 3-6.

- 1 Prepare the primary database station for the installation. See [“Run Oracle pre-installation script for primary database”](#) and [“Set directory ownership for database installation”](#) for more information.
- 2 Install the primary database. See [“Install primary database”](#) for more information.
- 3 Prepare the standby database station for the installation. See [“Run Oracle pre-installation script for standby database”](#) and [“Set directory ownership for database installation”](#) for more information.
- 4 Install the standby database. See [“Install standby database”](#) for more information.
- 5 Install the primary server. See [“Install primary server”](#) in Procedure 3-6 for more information.
- 6 Install a single-user client or client delegate server. See [“Install client”](#) for more information.
- 7 Reinstantiate the primary database on the standby database station. See [“Reinstantiate database on standby station”](#) for more information.
- 8 Install the standby server. See [“Install standby server”](#) for more information.
- 9 Install one or more auxiliary servers, if required. See Procedure 3-7 for more information.
- 10 Install a single-user client or client delegate server. See [“Install additional client”](#) for more information.

3.6 Redundant 5620 SAM installation on Solaris procedures

This section describes how to install the software components of a redundant 5620 SAM system on Solaris.

Procedure 3-6 describes how to install the 5620 SAM database and main server software. Procedures 3-2 and 3-3 describe how to install the 5620 SAM client software. Procedure 3-4 describes how to install a 5620 SAM client delegate server.



Note — Command-line examples use the following to represent the Solaris CLI prompts:

- #—represents the prompt for a root or root-equivalent user
- bash\$—represents the prompt for the samadmin and Oracle management users

Do not type the # symbol or bash\$ when entering a command.

Procedure 3-6 To install a redundant 5620 SAM system on Solaris

Perform this procedure to install the 5620 SAM primary and standby main server and database software on Solaris stations. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



Note 1 — You require the following user privileges to perform this procedure:

on the server stations:

- root or root-equivalent

on the database stations:

- root or root-equivalent
- Oracle management

Note 2 — The samadmin user account is created on each main server station during this procedure.

Note 3 — The Oracle management user account is created on each database station during this procedure.

Run Oracle pre-installation script for primary database

- 1 Before you perform a 5620 SAM database installation on Solaris, you must run the Oracle10g_PreInstall.sh script. This script creates and configures the UNIX account for the Oracle management user and adds configuration information to the /etc/system file.

Log in to the station that is to be the primary database station as a user with root or root-equivalent privileges.

- 2 Open a console window.
- 3 Place the 5620 SAM software DVD-ROM in a DVD-ROM drive.
- 4 Perform one of the following to change to the appropriate Solaris directory.

a On a Sun SPARC station, enter the following at the CLI prompt:

```
# cd Solaris ↵
```

b On a Sun X86-based station, enter the following at the CLI prompt:

```
# cd Solarisx86 ↵
```

- 5 Enter the following at the CLI prompt:

```
# ./Oracle10g_PreInstall.sh ↵
```

The following prompt is displayed:

Please select between the following option:

1) NEW INSTALL OF 5620 SAM

2) UPGRADE OF 5620 SAM

- 6 Enter 1 ↵.
- 7 The script prompts you for the following Oracle management user information:
 - the user group name (default is dba)
 - the user name (default is oracle)
 - the home directory (default is /opt/5620sam/oracle10r2)
 - a password, if one of the following is true:
 - there is no password
 - there is a password, but you specify that you want to change it

Provide the information. The script updates the system configuration.



Note 1 — To reduce the complexity of subsequent software upgrades and technical support activities, Alcatel-Lucent recommends that you press ↵ to accept the default value for each parameter.

Note 2 — If you specify a value other than the default, you must record the value for use when the Oracle10g_PreInstall.sh script is run during a software upgrade, or when the Oracle management user information is required by Alcatel-Lucent technical support.

Note 3 — If you receive a “failed to create group” message, confirm that NIS is disabled and re-run the pre-installation script. Contact Alcatel-Lucent technical support for more information.

- 8 When the script execution is complete, enter the following at the CLI prompt to reboot the primary database station:

```
# shutdown -y -i6 -g0 ↵
```

The primary database station reboots.

Before database installation can occur, the Oracle management user and group created by the pre-installation script require ownership of the directory that is to hold the database. The next section of the procedure describes how to configure the directory ownership.

Set directory ownership for database installation

- 9 After the primary database station reboots, log in to the primary database station as a user with root or root-equivalent privileges.

- 10 Open a console window.

- 11 Enter the following at the CLI prompt to change the current directory to /opt:

```
# cd /opt ↵
```

- 12 Enter the following at the CLI prompt to specify the required user and group ownership of the 5620sam directory and subdirectories:

```
# chown -R user:group 5620sam ↵
```

where

user is the username from step 7, typically oracle

group_name is the group name from step 7, typically dba

- 13 Enter the following at the CLI prompt to change to the 5620sam directory below the /opt directory:

```
# cd 5620sam ↵
```

- 14 Enter the following at the CLI prompt to confirm that the Oracle management user home directory has the correct user and group ownerships:

```
# ls -l ↵
```

If the command output is not as shown below, repeat steps 11 to 14. Do not proceed unless the output is as shown.

```
drwx----- 2 user      group          512 Apr 11 11:15 directory
```

where

user is the username specified in step 7, typically oracle

group is the group name specified in step 7, typically dba

directory is the Oracle management user home directory name specified in step 7, typically /opt/5620sam/oracle10r2

Install primary database

- 15 Log in to the station that is to be the primary database station as a user with root or root-equivalent privileges.

- 16 Open a console window.

- 17 Enter the following at the CLI prompt to switch to the Oracle management user created by the pre-installation script:

```
# su - Oracle_management_user_name ↵
```

where *Oracle_management_user_name* is the name of the UNIX account with Oracle management privileges, typically oracle

- 18 Navigate to the DVD-ROM drive that contains the 5620 SAM software DVD-ROM.

- 19 Perform one of the following to open the 5620 SAM database installer.

- a On a Sun SPARC station:

- i Enter the following at the CLI prompt:

```
bash$ cd Solaris ↵
```

- ii Enter the following at the CLI prompt:

```
bash$ ./DBConfig_SAM_8_0_revision.bin ↵
```

where

revision is the revision identifier, such as R1, R3, or another descriptor

- b On a Sun X86-based station:

- i Enter the following at the CLI prompt:

```
bash$ cd Solarisx86 ↵
```

- ii Enter the following at the CLI prompt:

```
bash$ ./DBConfig_x86_SAM_8_0_revision.bin ↵
```

where

revision is the revision identifier, such as R1, R3, or another descriptor

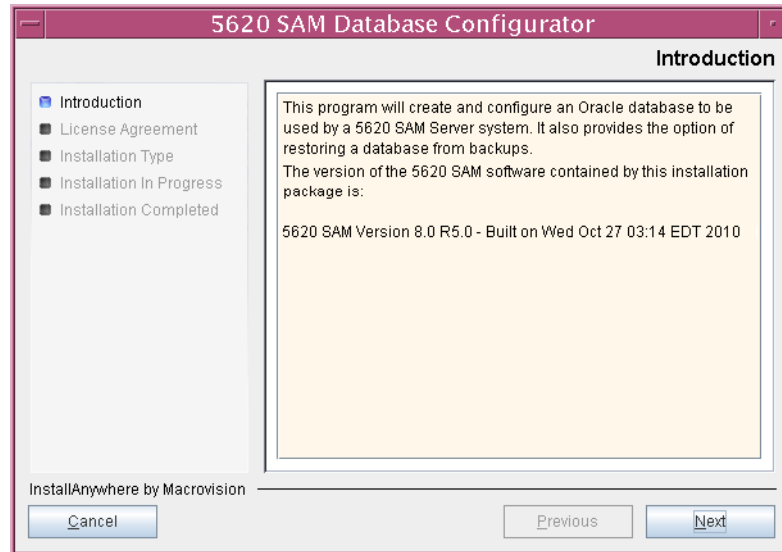
The splash screen shown in Figure 3-90 opens.

Figure 3-90 5620 SAM installer



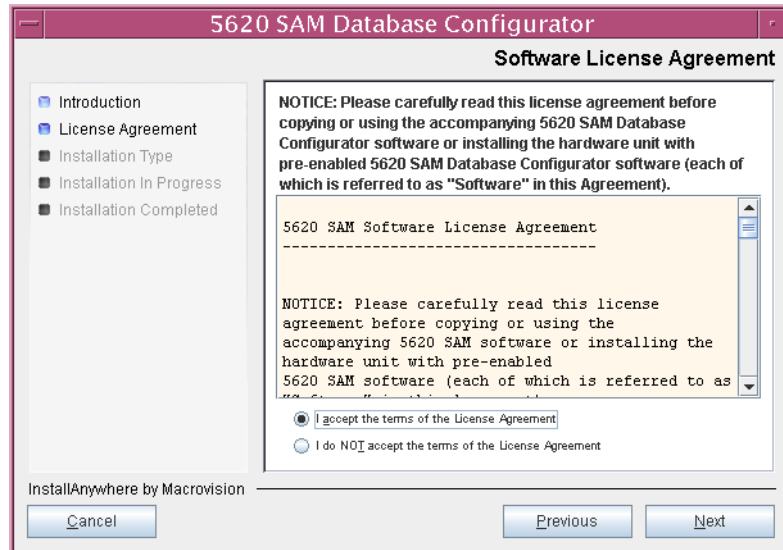
- 20 The 5620 SAM database installer opens, as shown in Figure 3-91. The left pane indicates installation progress. The right pane displays release information about the software. Click on the Next button.

Figure 3-91 Introduction



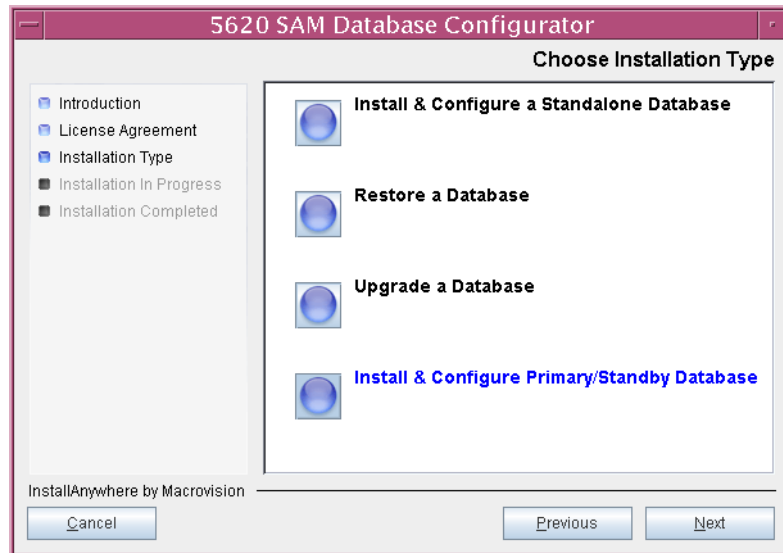
- 21 Review and accept the terms of the license agreement shown in Figure 3-92. Click on the Next button.

Figure 3-92 Software License Agreement



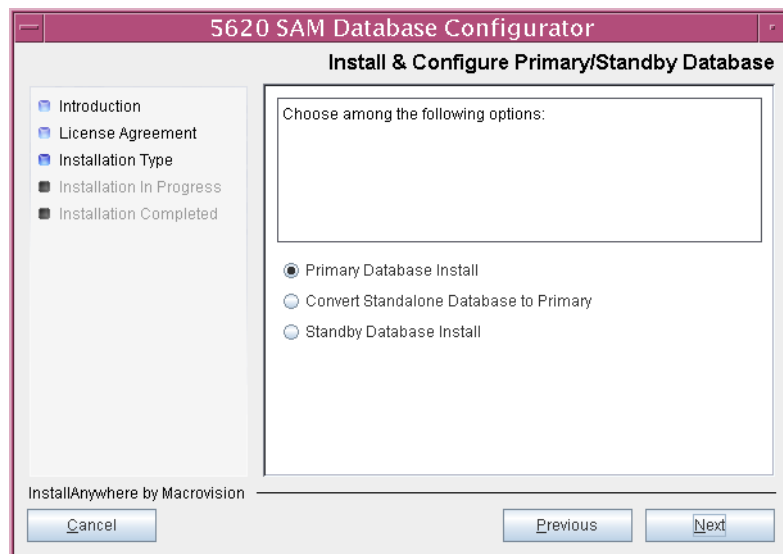
- 22 Select Install & Configure Primary/Standby Database, as shown in Figure 3-93. Click on the Next button.

Figure 3-93 Choose Installation Type



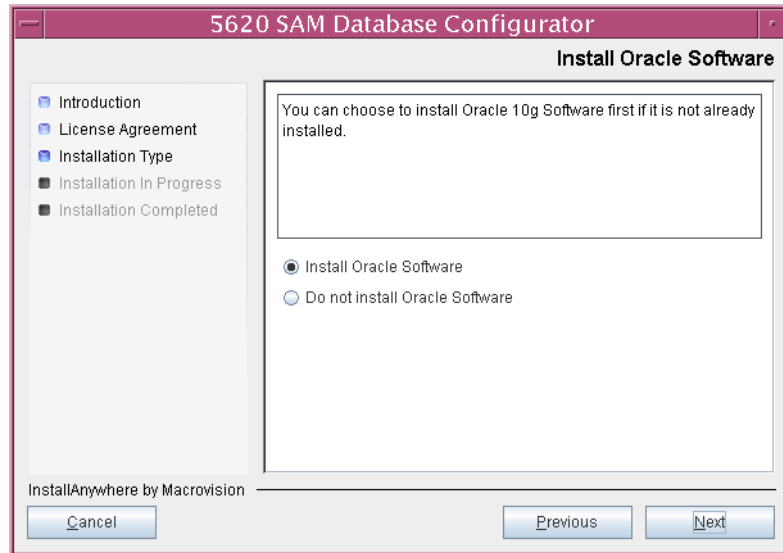
- 23 Select Primary Database Install, as shown in Figure 3-94. Click on the Next button.

Figure 3-94 Install & Configure Primary/Standby Database



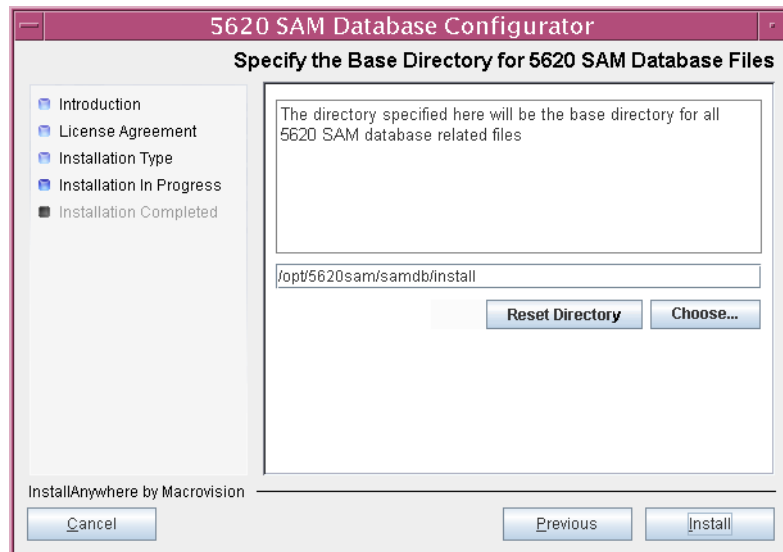
- 24 Select Install Oracle Software, as shown in Figure 3-95. Click on the Next button.

Figure 3-95 Install Oracle Software



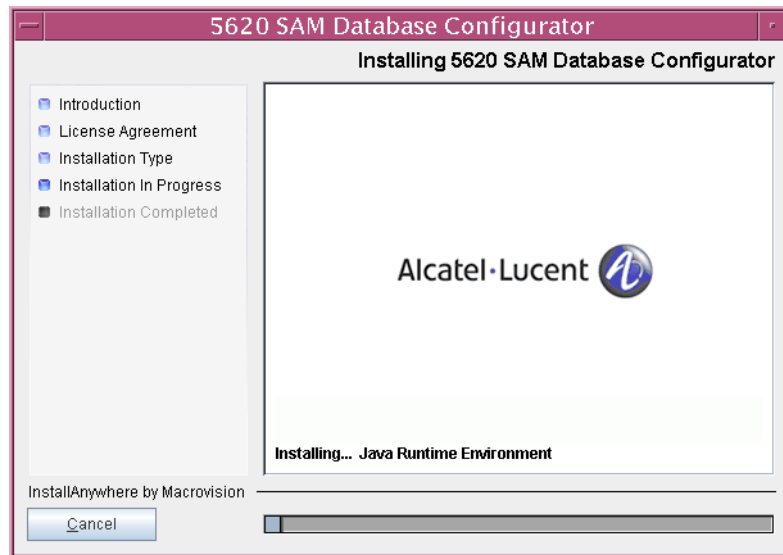
- 25 Specify a base directory in which to install the primary 5620 SAM database software (typically /opt/5620sam/samdb/install), as shown in Figure 3-96. Click on the Install button to begin the database software installation.

Figure 3-96 Specify the Base Directory for 5620 SAM Database Files



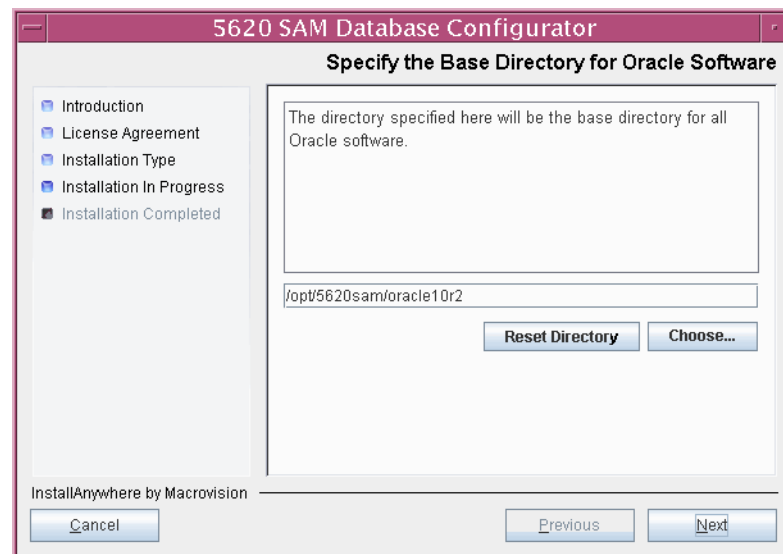
The installer prepares to install the database, as shown in Figure 3-97.

Figure 3-97 Installing 5620 SAM Database Configurator



- 26 Specify a base directory in which to install the Oracle software (typically /opt/5620sam/oracle10r2), as shown in Figure 3-98. Click on the Next button.

Figure 3-98 Specify the Base Directory for Oracle Software



- 27 Perform the following steps when the panel in Figure 3-99 is displayed.
 - i Open a separate console window.
 - ii Enter the following at the CLI prompt to switch to the root user:
 - iii Enter the following at the CLI prompt to run the Oracle pre-install script:

```
# su -
```

```
# path/install/config/orainstRoot.sh
```

where *path* is the 5620 SAM database installation location, typically /opt/5620sam/samdb

The script generates messages like the following:

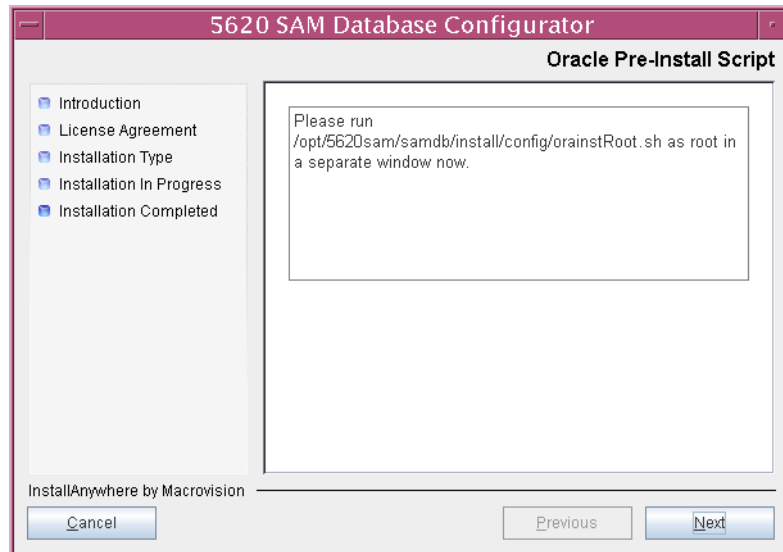
```
Creating the Oracle inventory pointer file
(/var/opt/oracle/oraInst.loc)
```

```
Creating the Oracle inventory directory
(/opt/5620sam/oracle10r2/oraInventory)
```

```
Changing groupname of /opt/5620sam/oracle10r2/oraInventory to
(dba).
```

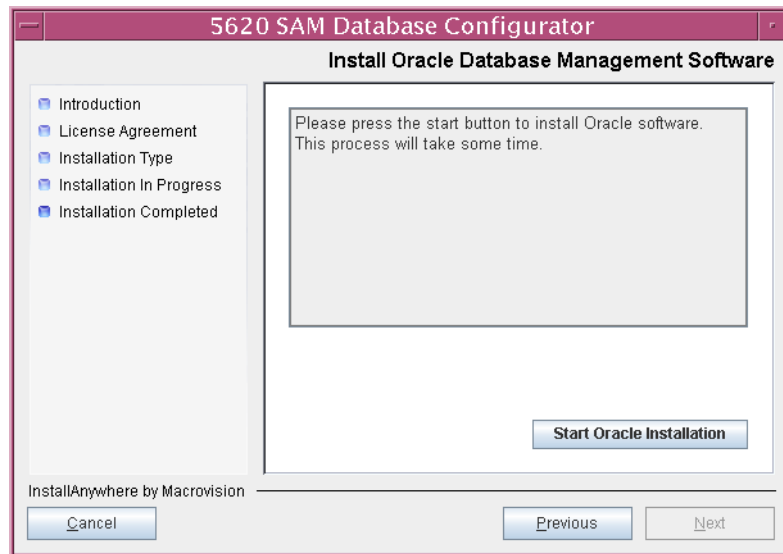
- iv When the script execution is complete, close the console window.
- v Click on the Next button.

Figure 3-99 Oracle Pre-Install Script



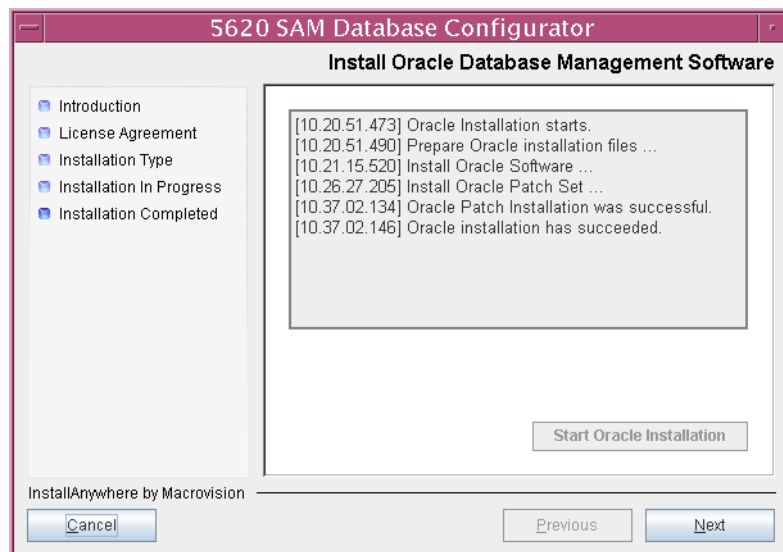
- 28 You are prompted to install Oracle software, as shown in Figure 3-100. This operation can take one hour or more. Click on the Start Oracle Installation button to begin the Oracle software installation.

Figure 3-100 Install Oracle Database Management Software



- 29 Oracle installation details are displayed as the installation progresses. When Oracle installation is complete, as shown in Figure 3-101, click on the Next button.

Figure 3-101 Install Oracle Database Management Software



30 Perform the following steps when the panel in Figure 3-102 is displayed.

i Open a separate console window.

ii Enter the following at the CLI prompt to switch to the root user:

```
# su -
```

iii Enter the following at the CLI prompt to run the Oracle post-install script:

```
# path/install/config/orapostinstRoot.sh
```

where *path* is the 5620 SAM database installation location, typically /opt/5620sam/samdb

The script generates messages like the following.

The following environment variables are set as:

```
ORACLE_OWNER= oracle
```

```
ORACLE_HOME=
```

```
/opt/5620sam/oracle10r2
```

iv The following prompt is displayed.

```
Enter the full pathname of the local bin directory:  
[/usr/local/bin]:
```

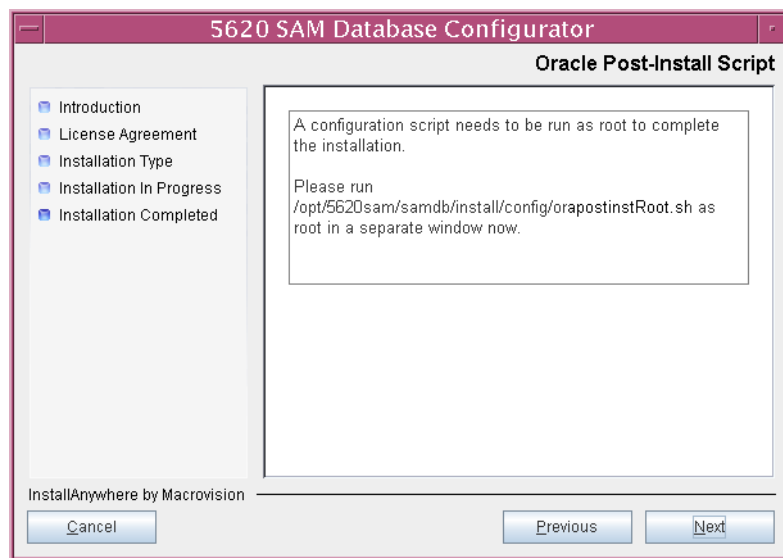
Respond to the prompt. The default value is typically acceptable.

v If you are prompted to overwrite an existing file, press **Y** to overwrite it.

vi When the script execution is complete, close the console window.

vii Click on the Next button.

Figure 3-102 Oracle Post-Install Script



31 Configure the following primary database installation parameters shown in Figure 3-103, then click on the Next button:

- NAT (network address translation) Used
- Public IP (accessible to servers)
- Private IP
- Database Name (typically samdb)
- Instance Name (typically samdb1)
- User Name (typically samuser)
- User Password



Note — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected.

Figure 3-103 Primary Database Configuration Info

The screenshot shows the '5620 SAM Database Configurator' window. On the left is a navigation pane with five items: 'Introduction' (selected), 'License Agreement', 'Installation Type', 'Installation In Progress', and 'Installation Completed'. The main area is titled 'Primary Database Configuration Info'. It contains a text box with instructions: 'Enter the IP address of the network interface the primary database requires to communicate with the server(s). If NAT (network address translation) is to be used, specify both the primary database's private and public IP addresses.' Below this is a checkbox labeled 'NAT (network address translation) Used' which is checked. Underneath, there is a 'Public IP (accessible to servers)' dropdown menu showing '192.168.200.133'. Further down are text input fields for 'Database Name' (containing 'samdb'), 'Instance Name' (containing 'samdb1'), 'User Name' (containing 'samuser'), 'User Password' (masked with asterisks), and 'Confirm User Password' (masked with asterisks). At the bottom left, it says 'InstallAnywhere by Macrovision'. At the bottom right are three buttons: 'Cancel', 'Previous', and 'Next'.

- 32 Configure the following parameters shown in Figure 3-104, record the information for use later in the procedure, then click on the Next button.
- Database Listener Port (typically 1523)
 - Database Proxy Port (typically 9002)
 - Database File Server Port (typically 9003)

Figure 3-104 Primary Database Configuration Info (cont.)

5620 SAM Database Configurator

Primary Database Configuration Info (cont.)

Introduction
License Agreement
Installation Type
Installation In Progress
Installation Completed

Database Listener Port 1523

Database Proxy Port 9002

Database File Server Port 9003

InstallAnywhere by Macrovision

Cancel Previous Next

- 33 Enter and confirm the Oracle SYS password, as shown in Figure 3-105. Click on the Next button.

Figure 3-105 Oracle SYS Password

5620 SAM Database Configurator

Oracle SYS Password

Introduction
License Agreement
Installation Type
Installation In Progress
Installation Completed

IMPORTANT: the password needs to be known to the 5620 SAM administrator for future reference

SYS Password *****

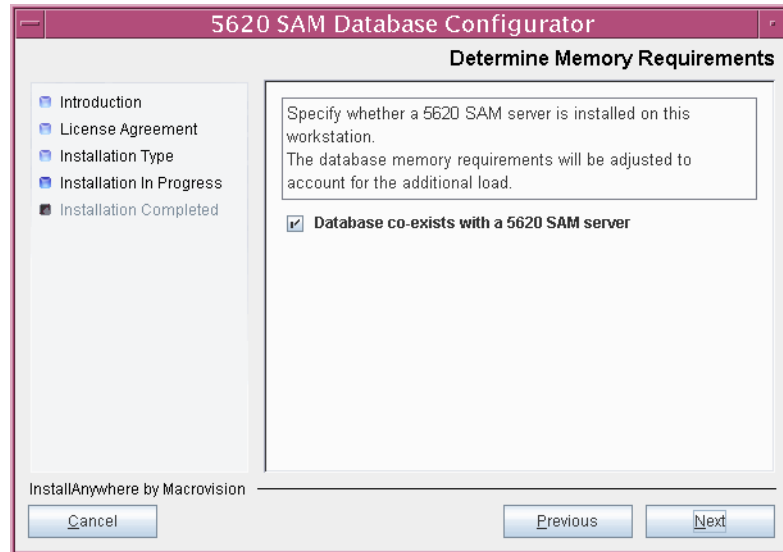
Confirm SYS Password *****

InstallAnywhere by Macrovision

Cancel Previous Next

- 34 If the 5620 SAM server and database are to be installed on the same station, select the “Database co-exists with a 5620 SAM Server” parameter shown in Figure 3-106. Click on the Next button.

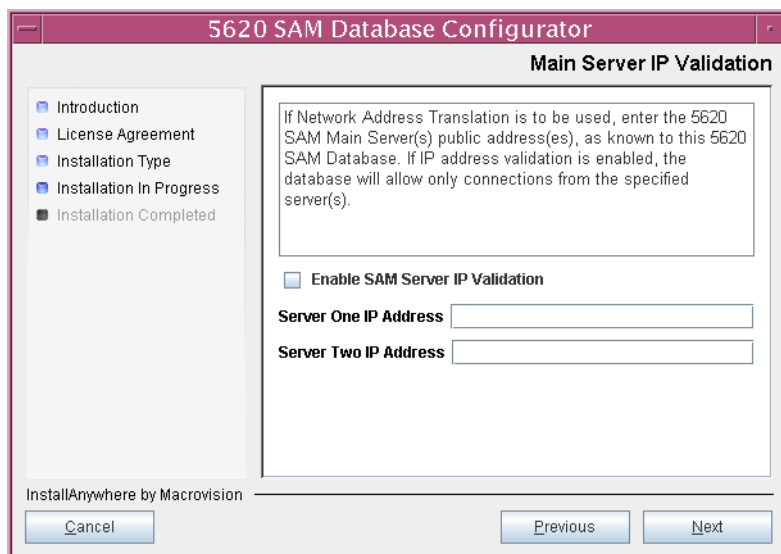
Figure 3-106 Determine Memory Requirements



- 35 If the “Enable SAM Server IP Validation” parameter shown in Figure 3-107 is selected, only the servers at the specified IP addresses or hostnames can connect to the database. If required, select it and configure the following parameters. Click on the Next button.

- Server One IP Address
- Server Two IP Address

Figure 3-107 Main Server IP Validation



- 36 The panel in Figure 3-108 is displayed if the “Enable SAM Server IP Validation” parameter in step 35 is selected. Otherwise, go to step 38.

If the 5620 SAM system includes an auxiliary server, perform the following steps.

- i Click on the Add button shown in Figure 3-108. The form shown in Figure 3-109 opens.

Figure 3-108 Auxiliary Server IP Validation

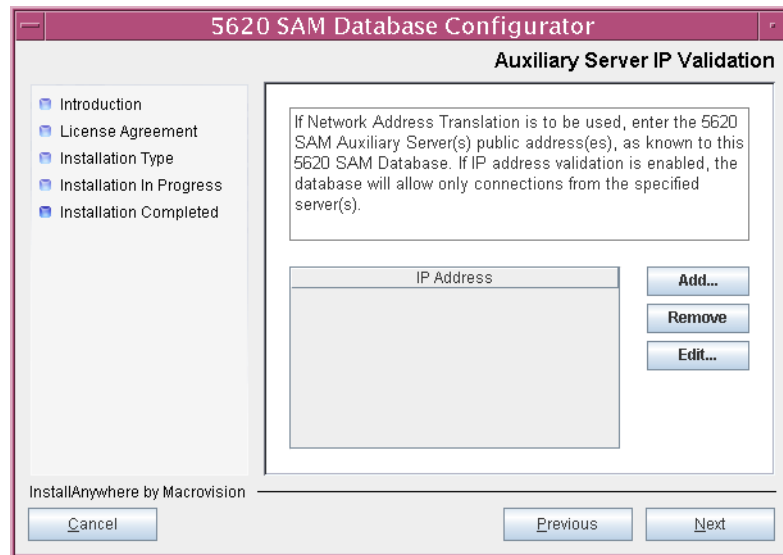
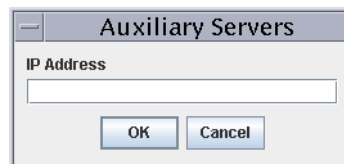


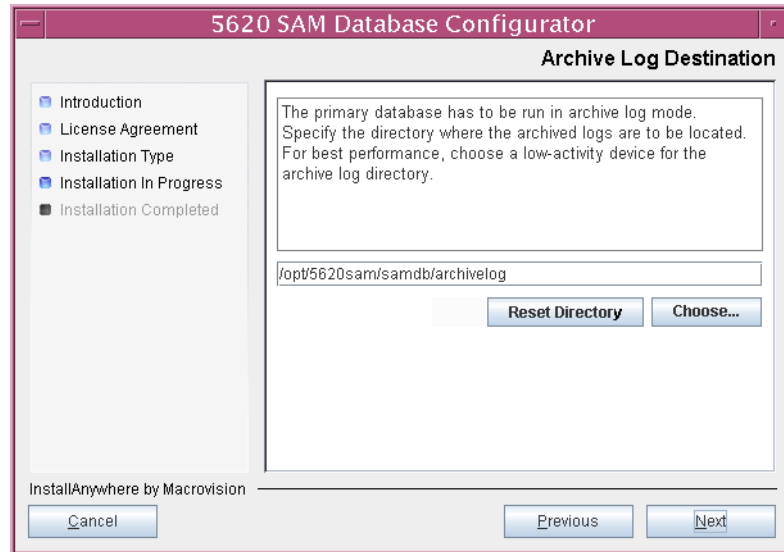
Figure 3-109 Auxiliary Servers



- ii Enter the IP address or hostname of the auxiliary server.
 - iii Click on the OK button to save the information and close the form.
 - iv Repeat steps 36 i to iii to specify an additional auxiliary server, if required.
- 37 Click on the Next button.

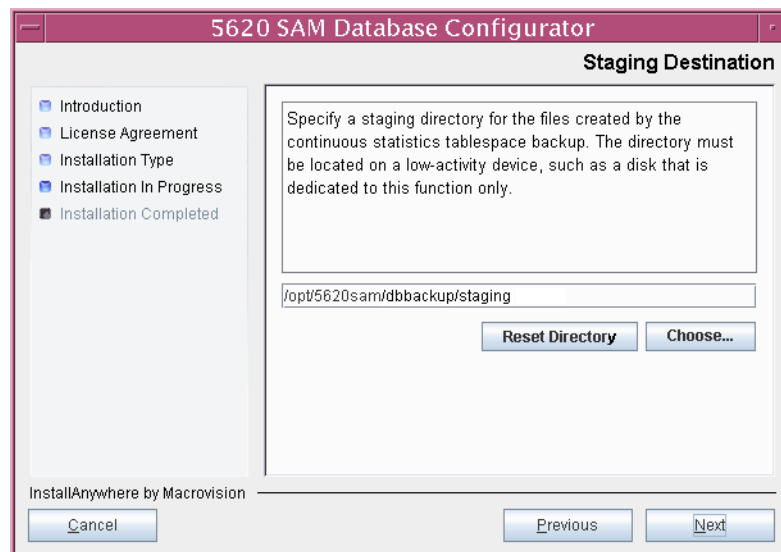
- 38 Specify an archive log destination (typically `/opt/5620sam/samdb/archivelog`) as shown in Figure 3-110. The archive log destination must be the same for the primary and standby databases. Click on the Next button.

Figure 3-110 Archive Log Destination



- 39 Specify a directory for the continuous statistics tablespace backup, as shown in Figure 3-111. Click on the Next button.

Figure 3-111 Staging Destination

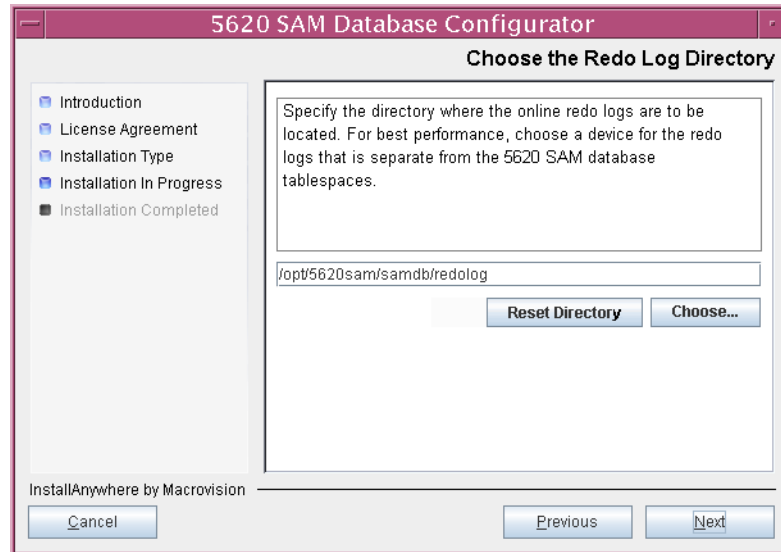


- 40 Specify a directory for the Redo logs (typically /opt/5620sam/samdb/redolog), as shown in Figure 3-112. Click on the Next button.



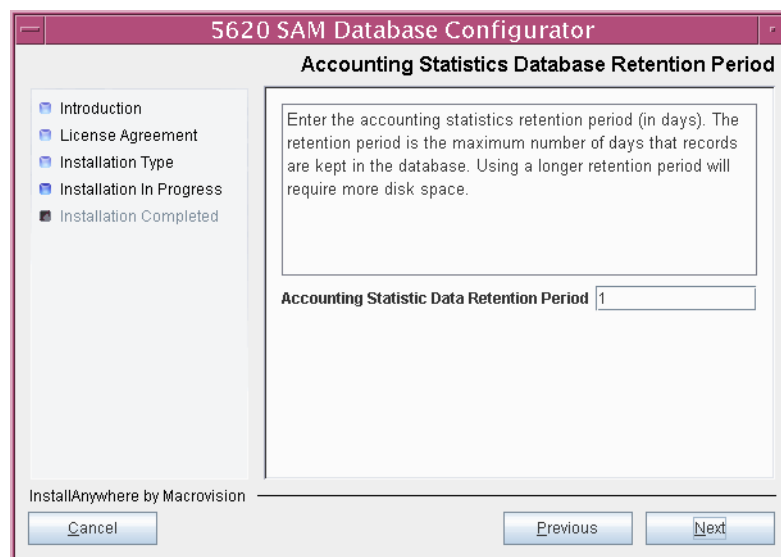
Note — In a one-disk configuration, the redo log directory must be the same directory that you specify as the tablespace directory later in the procedure.

Figure 3-112 Choose the Redo Log Directory



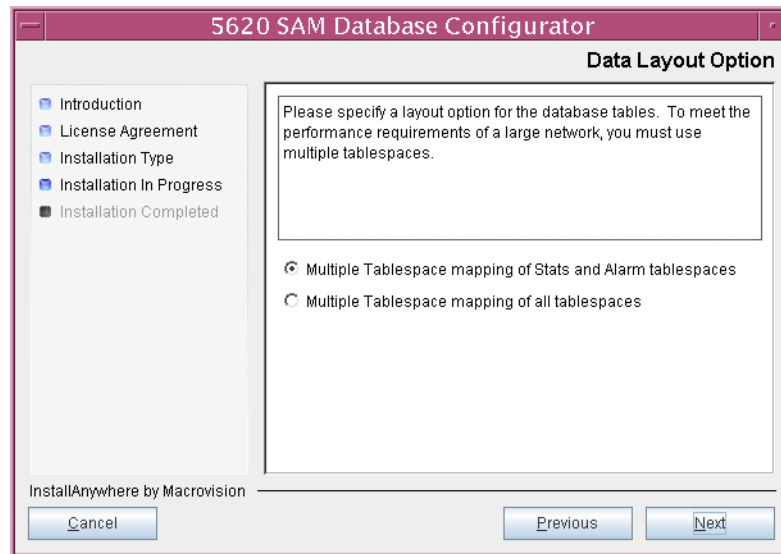
- 41 Configure the “Accounting Statistic Database Retention Period” parameter shown in Figure 3-113. Click on the Next button.

Figure 3-113 Accounting Statistics Database Retention Period



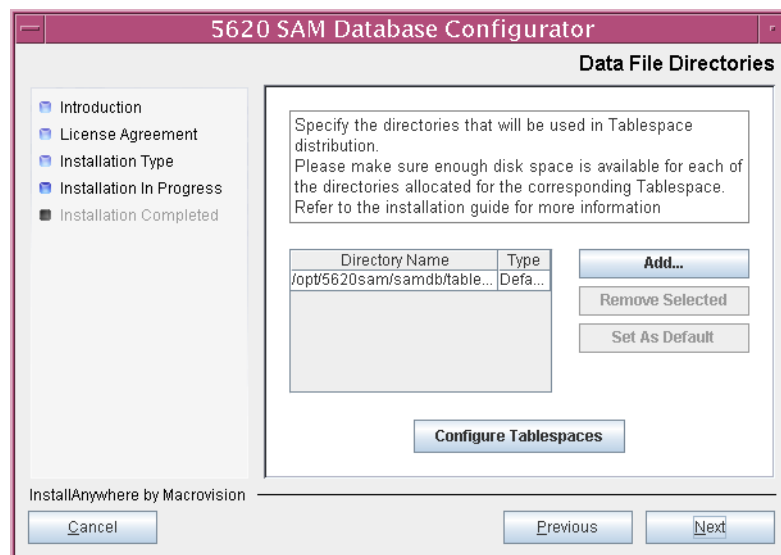
- 42 Choose one of the data layout options shown in Figure 3-114. Click on the Next button. Contact Alcatel-Lucent technical support for information about data layout options.

Figure 3-114 Data Layout Option



- 43 Choose the tablespace directories.
- i Click on the Add button shown in Figure 3-115. A file browser form opens.
 - ii Use the file browser form to choose a tablespace directory.
 - iii Repeat steps 43 i and ii to specify an additional tablespace directory, if required.

Figure 3-115 Data File Directories



- 44 Associate tablespaces with the directories specified in step 43.
- i Click on the Configure Tablespaces button. The tablespace configuration form shown in Figure 3-116 opens.



Note — The lists of drives and tablespaces on the tablespace configuration form may differ from the lists shown in the figure below.

- ii Follow the instructions at the top of the form to associate tablespaces with the directories, as required.
- iii Click on the OK button. The tablespace configuration form closes and the Data File Directories panel in Figure 3-115 reappears.

Figure 3-116 Configure Tablespaces

Select one drive and one or more Tablespaces from the left side. Add those associations to the right side using the 'Add associations from the left' button.
You can select at the same time on both TS tables at the left: Oracle Tablespaces and 5620 SAM Tablespaces

Directory Name	Type
/opt/5620sam/samdb/tables	Default

Oracle Tablespaces

Tablespace Name
INDX
SYSAUX
SYSTEM
TEMP
UNDOTBS1

5620 SAM Tablespaces

Tablespace Name
ALARMS
ALARM_HISTORY
CURRENT_DATA_STRUCT_1
CURRENT_DATA_STRUCT_2
CURRENT_DATA_STRUCT_3
CURRENT_DATA_STRUCT_4
SAM_RELATIONS_1
SAM_RELATIONS_2
SAM_SYSTEM_4

Name	Drive
ALARMS	/opt/5620sam/samdb/tables
ALARM_HISTORY	/opt/5620sam/samdb/tables
CURRENT_DATA_STRUCT_1	/opt/5620sam/samdb/tables
CURRENT_DATA_STRUCT_2	/opt/5620sam/samdb/tables
CURRENT_DATA_STRUCT_3	/opt/5620sam/samdb/tables
CURRENT_DATA_STRUCT_4	/opt/5620sam/samdb/tables
INDX	/opt/5620sam/samdb/tables
SAM_RELATIONS_1	/opt/5620sam/samdb/tables
SAM_RELATIONS_2	/opt/5620sam/samdb/tables
SAM_SYSTEM_1	/opt/5620sam/samdb/tables
SAM_SYSTEM_2	/opt/5620sam/samdb/tables
SAM_SYSTEM_3	/opt/5620sam/samdb/tables
SAM_SYSTEM_4	/opt/5620sam/samdb/tables
STATS_CURRENT	/opt/5620sam/samdb/tables
STATS_HISTORY	/opt/5620sam/samdb/tables
STATS_POLICY	/opt/5620sam/samdb/tables
SYSAUX	/opt/5620sam/samdb/tables
SYSTEM	/opt/5620sam/samdb/tables
TEMP	/opt/5620sam/samdb/tables
TIMS_SYSTEM	/opt/5620sam/samdb/tables
TIMS_SYS_INDX	/opt/5620sam/samdb/tables
UNDOTBS1	/opt/5620sam/samdb/tables
USERS	/opt/5620sam/samdb/tables

Add associations from the left
Remove Selected Associations
Set Default Associations
Select All

OK Cancel

- 45 Click on the Next button.

- 46 Specify a directory for the accounting statistics tablespace files, as shown in Figure 3-117. Click on the Next button.

Figure 3-117 Accounting Statistics Data File Directory

The screenshot shows the '5620 SAM Database Configurator' window with the 'Accounting Statistics Data File Directory' tab selected. On the left, a navigation pane lists: Introduction, License Agreement, Installation Type, Installation In Progress, and Installation Completed. The main area contains instructions: 'Specify a directory for the accounting statistics tablespace files. For the best performance, locate the directory on a low-activity device, such as one that is dedicated to the accounting statistics tablespaces only.' Below this is a text field containing '/opt/5620sam/samdb/tablespace/statstbs01'. There are 'Reset Directory' and 'Choose...' buttons. At the bottom, there are 'Cancel', 'Previous', and 'Next' buttons. The footer text reads 'InstallAnywhere by Macrovision'.

- 47 Configure the following parameters shown in Figure 3-118, record the information for use later in the procedure, then click on the Next button:

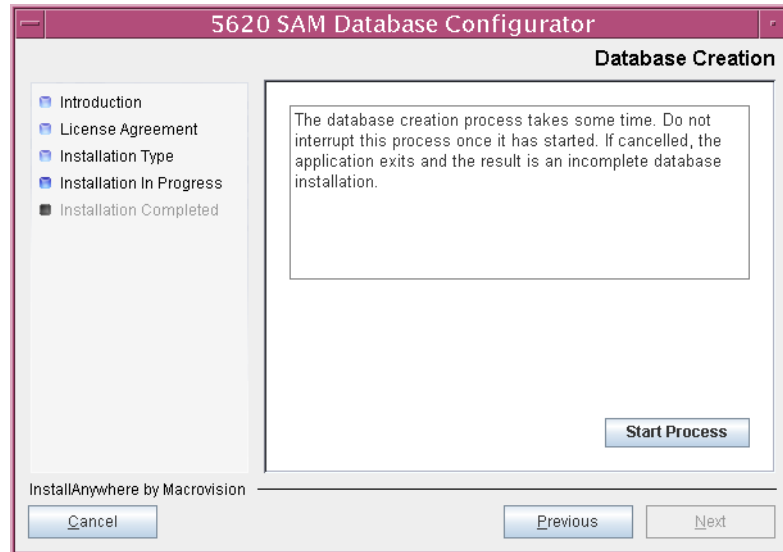
- Standby IP Address
- Standby Instance Name (typically samdb2)
- Standby Oracle Home (typically /opt/5620sam/oracle10r2)
- Standby Archive Log Destination (typically /opt/5620sam/samdb/archive.log)

Figure 3-118 Standby Database Info

The screenshot shows the '5620 SAM Database Configurator' window with the 'Standby Database Info' tab selected. The left navigation pane is the same as in Figure 3-117. The main area contains instructions: 'If NAT (network address translation) is to be used, enter the standby 5620 SAM database's public IP address, as known to the 5620 SAM server.' Below this are four labeled text fields: 'Standby IP Address' (empty), 'Standby Instance Name' (containing 'samdb2'), 'Standby Oracle Home' (containing '/opt/5620sam/oracle10r2'), and 'Standby Archive Log Destination' (containing '/opt/5620sam/samdb/archive.log'). At the bottom, there are 'Cancel', 'Previous', and 'Next' buttons. The footer text reads 'InstallAnywhere by Macrovision'.

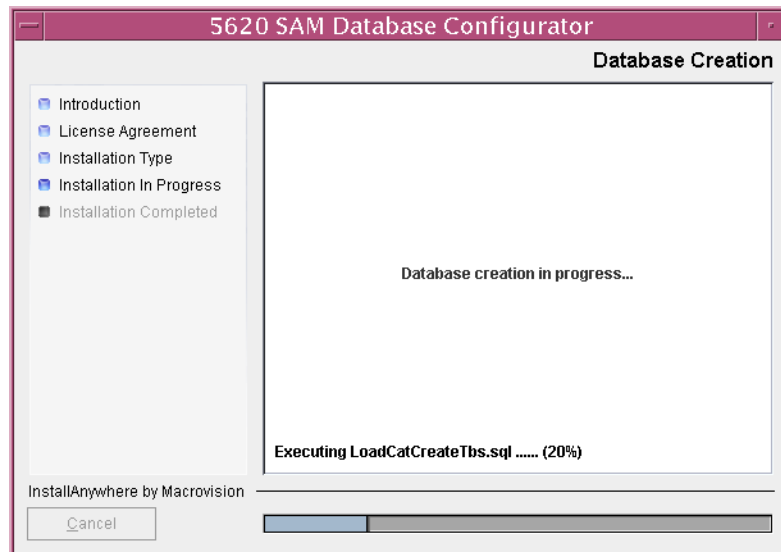
- 48 You are prompted to begin primary database creation, as shown in Figure 3-119. Database creation can take one hour or more, depending on the tablespace configuration. Click on the Start Process button to begin the database creation.

Figure 3-119 Database Creation



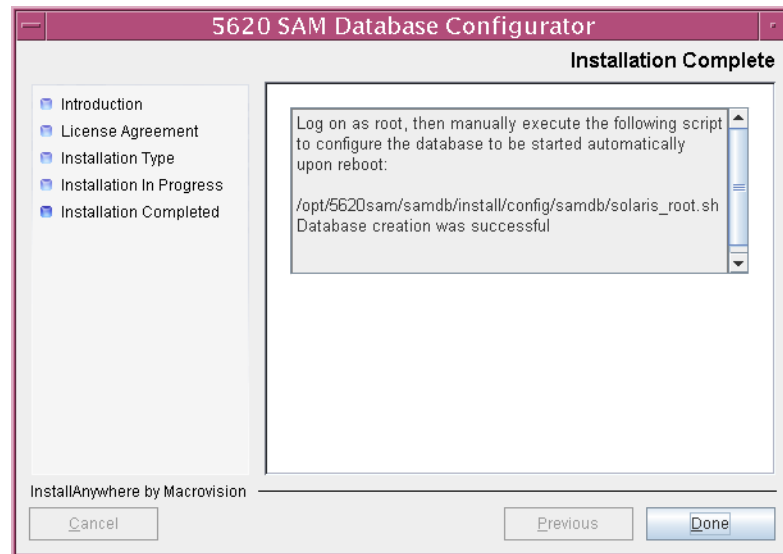
The next panel displays database creation progress, as shown in Figure 3-120.

Figure 3-120 Database Creation



- 49 When the panel in Figure 3-121 is displayed, the 5620 SAM database installation is complete, but as shown in the panel text, you must run a script to enable automatic database startup.

Figure 3-121 Installation Complete



Perform the following steps to run the script described in the panel.

- i Open a separate console window as a user with root or root-equivalent privileges.
- ii Enter the following at the CLI prompt:

```
# path/install/config/samdb/solaris_root.sh
```

where *path* is the 5620 SAM database installation location, typically /opt/5620sam/samdb

The script returns messages similar to the following:

```
creating link for /usr/local/lib/libiconv.so.2
creating link for /usr/local/lib/libpopt.so.0
creating link for /usr/local/lib/libintl.so.8
creating link for /usr/local/lib/libgcc_s.so.1
```

- iii When the script execution is complete, close the console window.

- 50 Click on the Done button to close the database installer.

The next section of the procedure describes the installation of the standby 5620 SAM database. The standby database must be installed on a station other than the one on which the primary database is installed. Database installation requires root-equivalent privileges.

Run Oracle pre-installation script for standby database

- 51 Before you perform a 5620 SAM database installation on Solaris, you must run the Oracle10g_PreInstall.sh script. This script creates and configures the UNIX account for the Oracle management user and adds configuration information to the /etc/system file.

Log in to the station that is to be the standby database station as a user with root or root-equivalent privileges.

- 52 Open a console window.
- 53 Place the 5620 SAM software DVD-ROM in a DVD-ROM drive.
- 54 Navigate to the DVD-ROM drive.
- 55 Perform one of the following to change to the appropriate Solaris directory.
- a On a Sun SPARC station, enter the following at the CLI prompt:

```
# cd Solaris ↵
```

- b On a Sun X86-based station, enter the following at the CLI prompt:

```
# cd Solarisx86 ↵
```

- 56 Enter the following at the CLI prompt:

```
# ./Oracle10g_PreInstall.sh ↵
```

The following prompt is displayed:

```
Please select between the following option:
```

- ```
1) NEW INSTALL OF 5620 SAM
2) UPGRADE OF 5620 SAM
```

- 57 Enter 1 ↵.
- 58 The script prompts you for the following Oracle management user information:
- the user group name (default is dba)
  - the user name (default is oracle)
  - the home directory (default is /opt/5620sam/oracle10r2)
  - a password, if one of the following is true:
    - there is no password
    - there is a password, but you specify that you want to change it

Provide the information. The script updates the system configuration.



**Note 1** — To reduce the complexity of subsequent software upgrades and technical support activities, Alcatel-Lucent recommends that you press **↵** to accept the default value for each parameter.

**Note 2** — If you specify a value other than the default, you must record the value for use when the Oracle10g\_PreInstall.sh script is run during a software upgrade, or when the Oracle management user information is required by Alcatel-Lucent technical support.

**Note 3** — If you receive a “failed to create group” message, confirm that NIS is disabled and re-run the pre-installation script. Contact Alcatel-Lucent technical support for more information.

- 59 When the script execution is complete, enter the following at the CLI prompt to reboot the standby database station:

```
shutdown -y -i6 -g0 ↵
```

The standby database station reboots.

Before standby database installation can occur, the Oracle management user and group created by the pre-installation script require ownership of the directory that is to hold the database. The next section of the procedure describes how to configure the directory ownership.

#### Set directory ownership for database installation

- 60 After the standby database station reboots, log in to the standby database station as a user with root or root-equivalent privileges.

- 61 Open a console window.

- 62 Enter the following at the CLI prompt to change the current directory to /opt:

```
cd /opt ↵
```

- 63 Enter the following at the CLI prompt to specify the required user and group ownership of the 5620sam directory and subdirectories:

```
chown -R user:group 5620sam ↵
```

where

*user* is the username from step 58, typically oracle

*group\_name* is the group name from step 58, typically dba

- 64 Enter the following at the CLI prompt to change to the 5620sam directory below the /opt directory:

```
cd 5620sam ↵
```

- 65 Enter the following at the CLI prompt to confirm that the Oracle management user home directory has the correct user and group ownerships:

```
ls -l ↵
```



If the command output is not as shown below, repeat steps 62 to 65. Do not proceed unless the output is as shown.

```
drwx----- 2 user group 512 Apr 11 11:15 directory
```

where

*user* is the username specified in step 58, typically oracle

*group* is the group name specified in step 58, typically dba

*directory* is the Oracle management user home directory name specified in step 58, typically /opt/5620sam/oracle10r2

### Install standby database

66 Log in to the station that is to be the standby database station as a user with root or root-equivalent privileges.

67 Open a console window.

68 Enter the following at the CLI prompt to switch to the Oracle management user created by the pre-installation script:

```
su - Oracle_management_user_name ↵
```

where *Oracle\_management\_user\_name* is the name of the UNIX account with Oracle management privileges, typically oracle

69 Place the 5620 SAM software DVD-ROM in a DVD-ROM drive.

70 Navigate to the DVD-ROM drive.

71 Perform one of the following to open the 5620 SAM database installer.

a On a Sun SPARC station:

i Enter the following at the CLI prompt:

```
bash$ cd Solaris ↵
```

ii Enter the following at the CLI prompt:

```
bash$./DBConfig_SAM_8_0_revision.bin ↵
```

where

*revision* is the revision identifier, such as R1, R3, or another descriptor

b On a Sun X86-based station:

i Enter the following at the CLI prompt:

```
bash$ cd Solarisx86 ↵
```

ii Enter the following at the CLI prompt:

```
bash$./DBConfig_x86_SAM_8_0_revision.bin ↵
```

where

*revision* is the revision identifier, such as R1, R3, or another descriptor

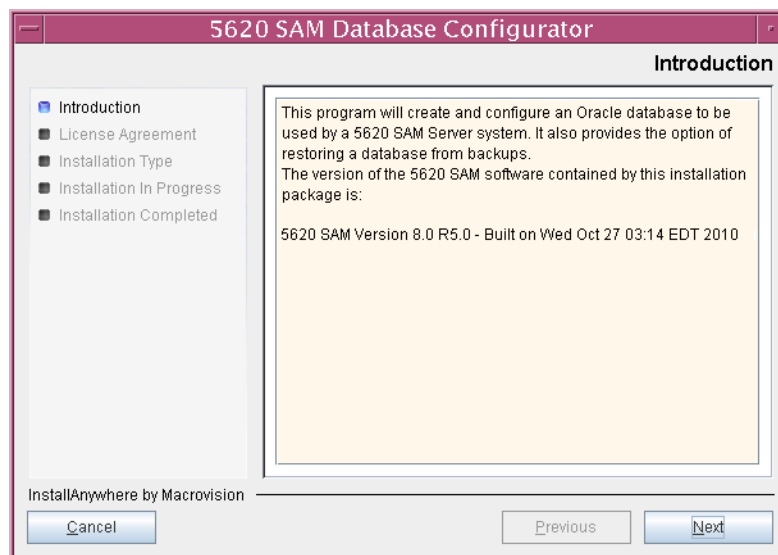
The splash screen shown in Figure 3-122 opens.

Figure 3-122 5620 SAM installer



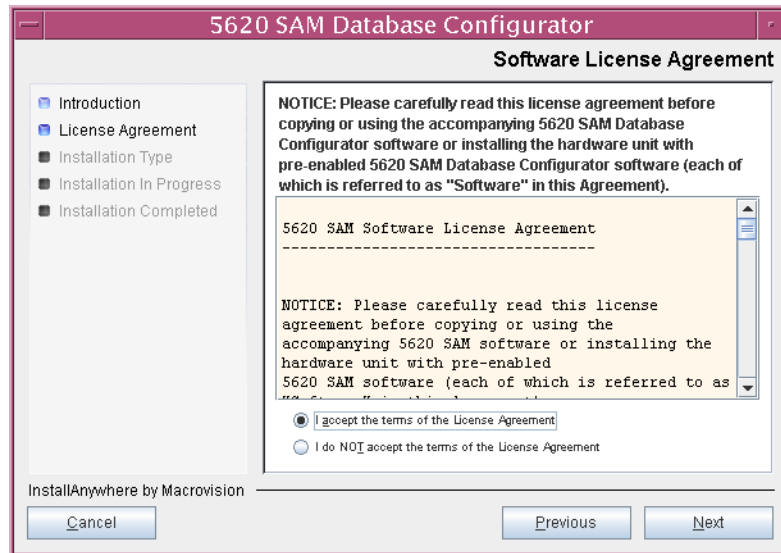
- 72 The 5620 SAM database installer opens, as shown in Figure 3-123. The left pane indicates installation progress. The right pane displays release information about the software. Click on the Next button.

Figure 3-123 Introduction



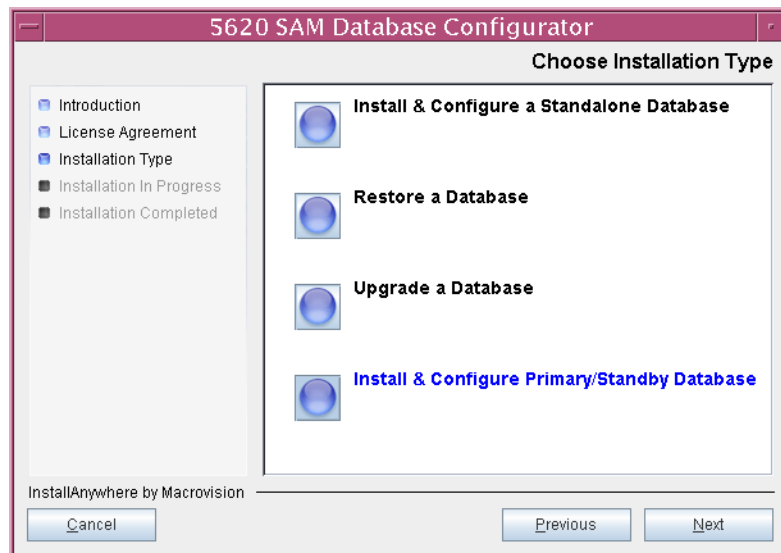
- 73 Review and accept the terms of the license agreement shown in Figure 3-124. Click on the Next button.

Figure 3-124 Software License Agreement



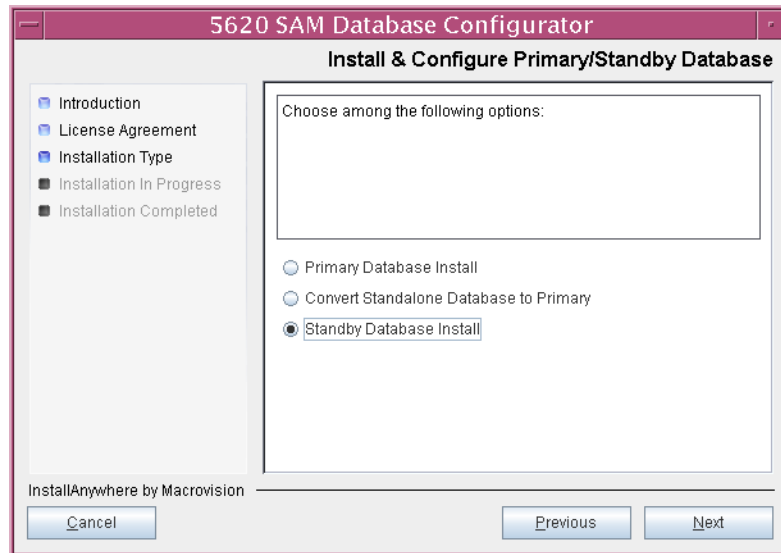
- 74 Select Install & Configure Primary/Standby Database, as shown in Figure 3-125. Click on the Next button.

Figure 3-125 Choose Installation Type



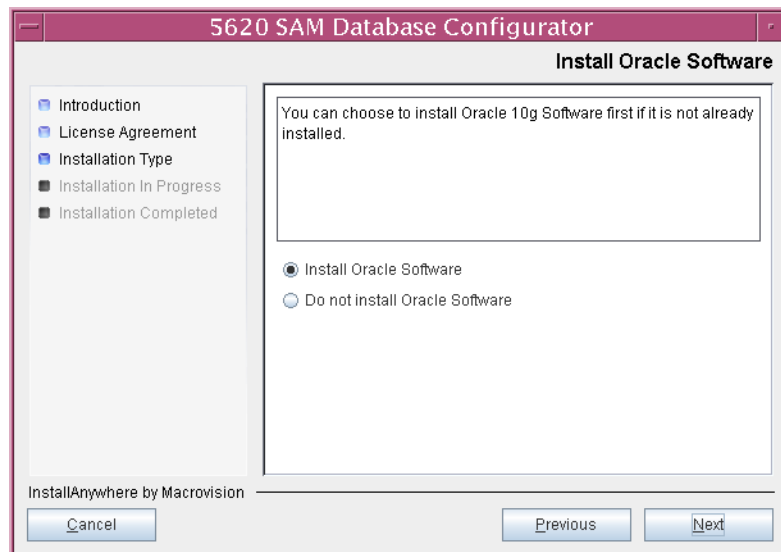
- 75 Select Standby Database Install, as shown in Figure 3-126. Click on the Next button.

Figure 3-126 Install & Configure Primary/Standby Database



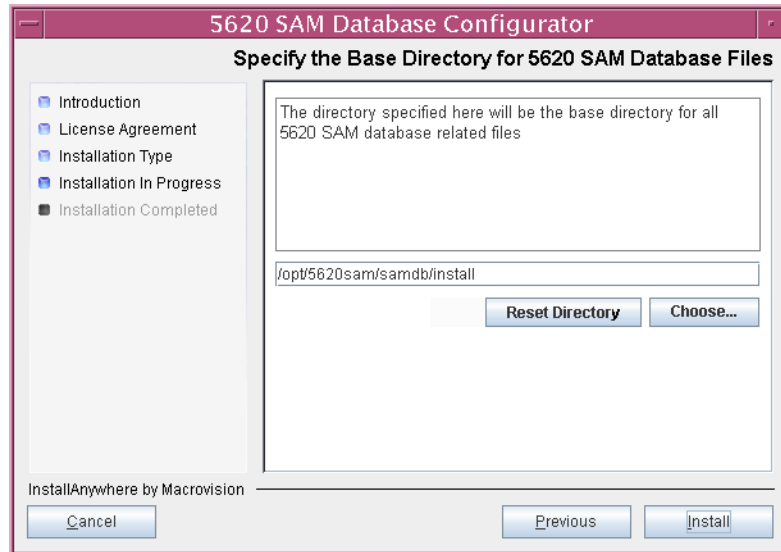
- 76 Select Install Oracle Software, as shown in Figure 3-127. Click on the Next button.

Figure 3-127 Install Oracle Software



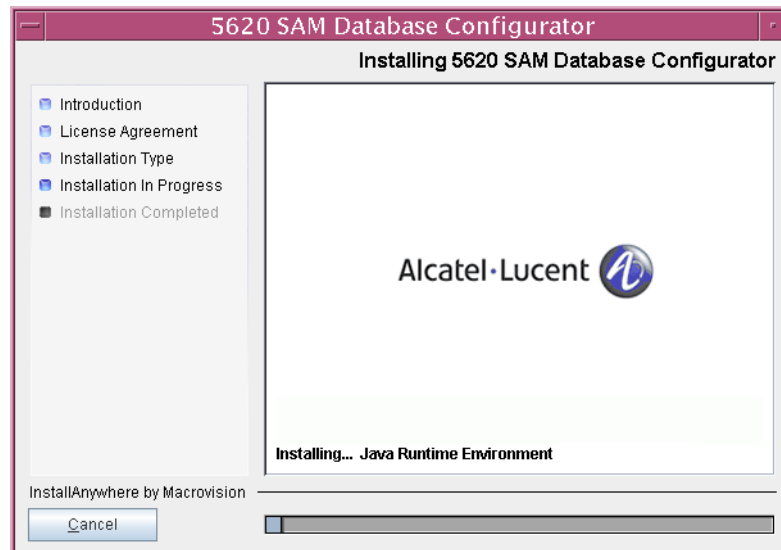
- 77 Specify a base directory in which to install the standby 5620 SAM database software (typically /opt/5620sam/samdb/install), as shown in Figure 3-128. Click on the Install button to begin the database software installation.

Figure 3-128 Specify the Base Directory for 5620 SAM Database Files



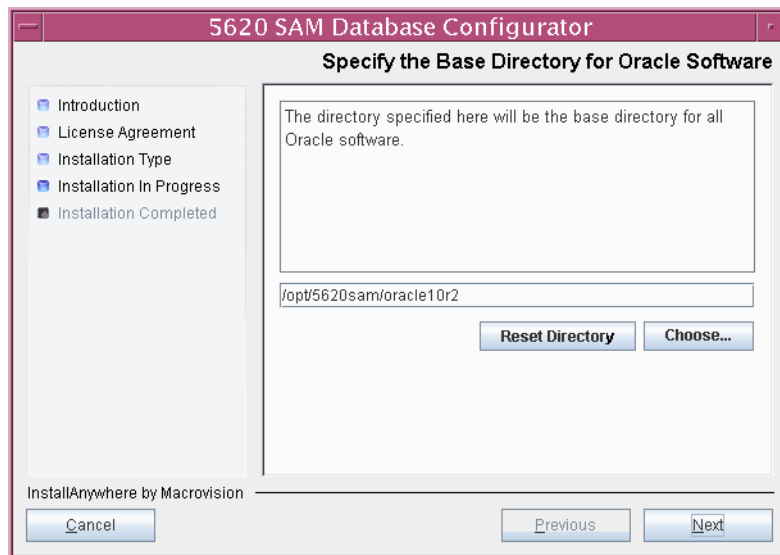
The installer prepares to install the database, as shown in Figure 3-129.

Figure 3-129 Installing 5620 SAM Database Configurator



- 78 Specify a base directory in which to install the Oracle software (typically /opt/5620sam/oracle10r2), as shown in Figure 3-130. Click on the Next button.

Figure 3-130 Specify the Base Directory for Oracle Software



79 Perform the following steps when the panel in Figure 3-131 is displayed.

- i Open a separate console window.
- ii Enter the following at the CLI prompt to switch to the root user:
- iii Enter the following at the CLI prompt to run the Oracle pre-install script:

```
su -
```

```
path/install/config/orainstRoot.sh
```

where *path* is the 5620 SAM database installation location, typically /opt/5620sam/samdb

The script generates messages like the following:

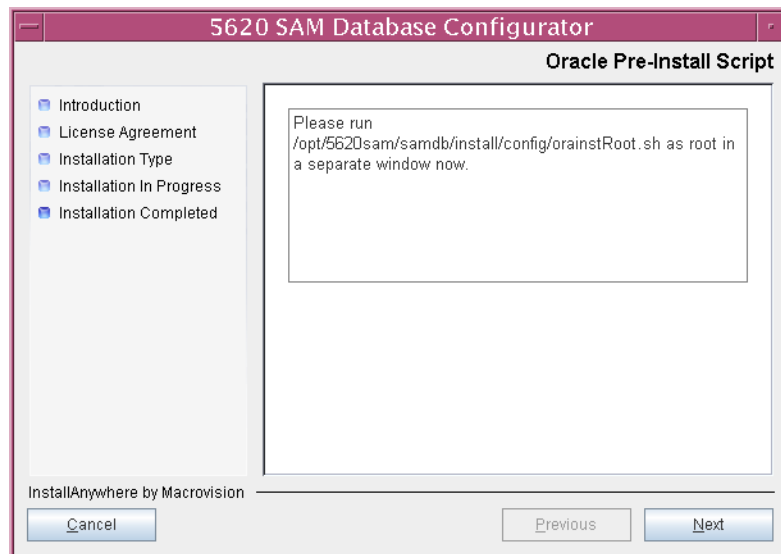
```
Creating the Oracle inventory pointer file
(/var/opt/oracle/oraInst.loc)
```

```
Creating the Oracle inventory directory
(/opt/5620sam/oracle10r2/oraInventory)
```

```
Changing groupname of /opt/5620sam/oracle10r2/oraInventory to
(dba).
```

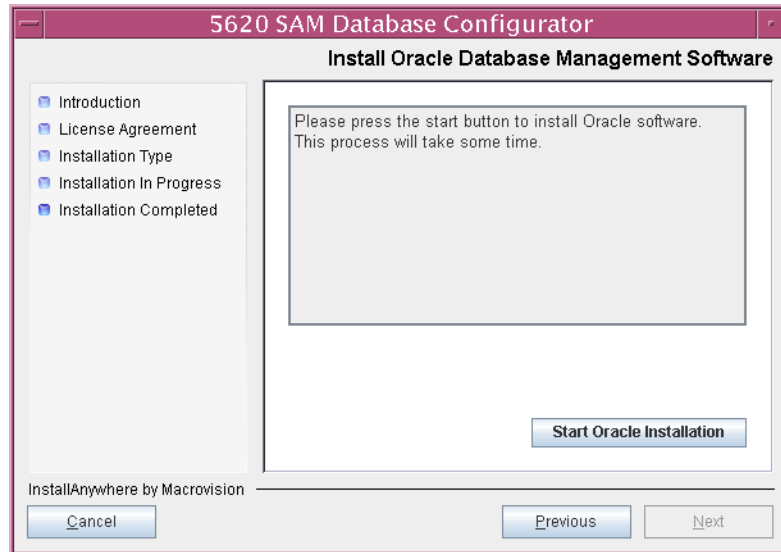
- iv When the script execution is complete, close the console window.
- v Click on the Next button.

Figure 3-131 Oracle Pre-Install Script



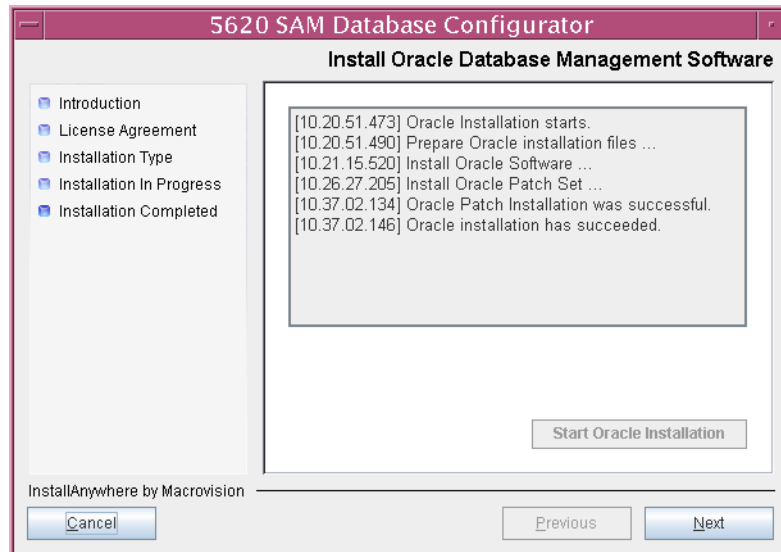
- 80 You are prompted to install Oracle software, as shown in Figure 3-132. This operation can take one hour or more. Click on the Start Oracle Installation button to begin the Oracle software installation.

Figure 3-132 Install Oracle Database Management Software



- 81 Oracle installation details are displayed as the installation progresses, as shown in Figure 3-133. When installation is complete, click on the Next button.

Figure 3-133 Install Oracle Database Management Software





82 Perform the following steps when the panel in Figure 3-134 is displayed.

i Open a separate console window.

ii Enter the following at the CLI prompt to switch to the root user:

```
su -
```

iii Enter the following at the CLI prompt to run the Oracle post-install script:

```
path/install/config/orapostinstRoot.sh
```

where *path* is the 5620 SAM database installation location, typically /opt/5620sam/samdb

The script generates messages like the following.

The following environment variables are set as:

```
ORACLE_OWNER= oracle
```

```
ORACLE_HOME=
```

```
/opt/5620sam/oracle10r2
```

iv The following prompt is displayed.

```
Enter the full pathname of the local bin directory:
[/usr/local/bin]:
```

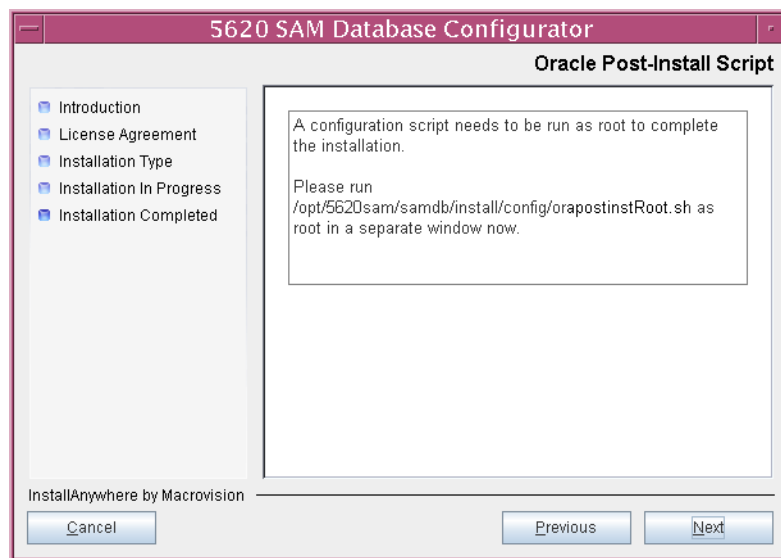
Respond to the prompt. The default value is typically acceptable.

v If you are prompted to overwrite an existing file, press **Y** to overwrite it.

vi When the script execution is complete, close the console window.

vii Click on the Next button.

Figure 3-134 Oracle Post-Install Script



83 Configure the parameters shown in Figure 3-135, then click on the Next button.

- NAT (network address translation) Used
- Public IP (accessible to servers)
- Private IP
- Database Proxy Port (typically 9002)



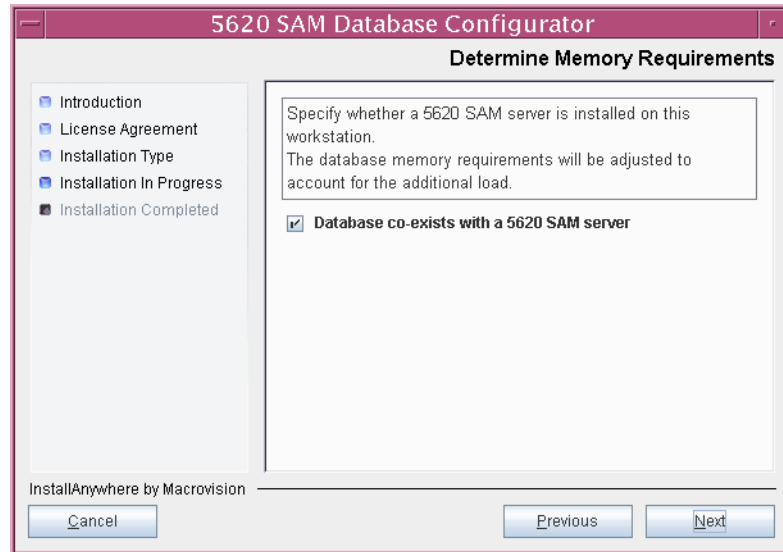
**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected.

Figure 3-135 Standby Database Configuration Info

The screenshot shows the '5620 SAM Database Configurator' window with the 'Standby Database Configuration Info' tab selected. On the left is a navigation pane with five items: 'Introduction', 'License Agreement', 'Installation Type', 'Installation In Progress' (which is highlighted with a blue background), and 'Installation Completed' (which has a black square icon). The main area contains a text box with instructions: 'Enter the IP address of the network interface the standby database will use to communicate with the server(s). If NAT (network address translation) is to be used, specify both the standby database's private and public IP addresses.' Below this is a checkbox labeled 'NAT (network address translation) Used' which is checked. Underneath the checkbox are two input fields: 'Public IP (accessible to servers)' with the value '192.168.200.233' and a dropdown arrow, and 'Database Proxy Port' with the value '9002'. At the bottom of the window, there is a status bar that says 'InstallAnywhere by Macrovision' and three buttons: 'Cancel', 'Previous', and 'Next'.

- 84 If the 5620 SAM server and database are to be installed on the same station, select the “Database co-exists with a 5620 SAM Server” parameter shown in Figure 3-136. Click on the Next button.

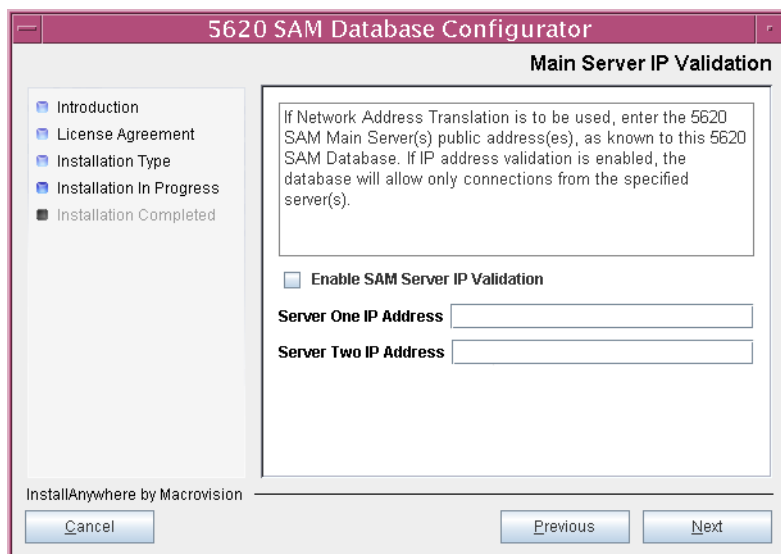
Figure 3-136 Determine Memory Requirements



- 85 If the “Enable SAM Server IP Validation” parameter shown in Figure 3-137 is selected, only the servers at the specified IP addresses or hostnames can connect to the database. If required, select it and configure the following parameters. Click on the Next button.

- Server One IP Address
- Server Two IP Address

Figure 3-137 Main Server IP Validation



- 86 The panel in Figure 3-138 is displayed if the “Enable SAM Server IP Validation” parameter in step 85 is selected. Otherwise, go to step 88.

If the 5620 SAM system includes an auxiliary server, perform the following steps.

- i Click on the Add button shown in Figure 3-138. The form shown in Figure 3-139 opens.

Figure 3-138 Auxiliary Server IP Validation

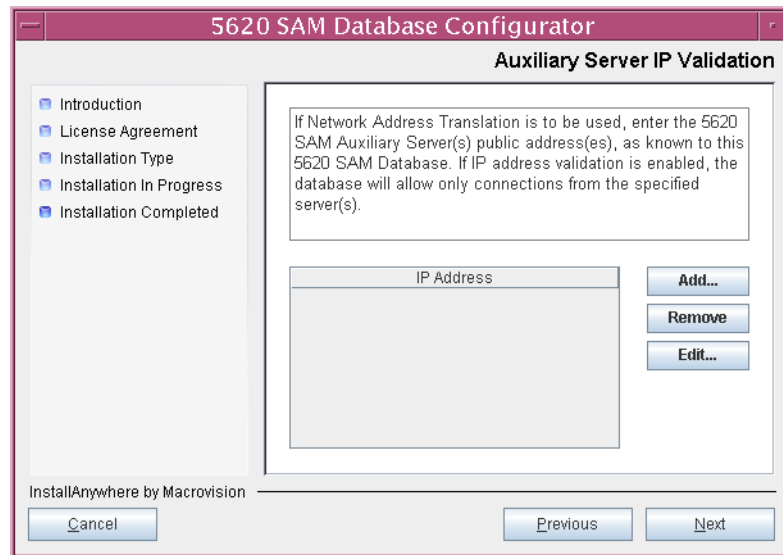
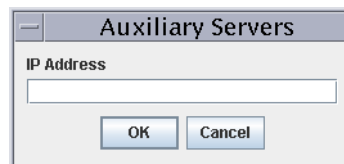


Figure 3-139 Auxiliary Servers



- ii Enter the IP address or hostname of the auxiliary server.
  - iii Click on the OK button to save the information and close the form.
  - iv Repeat steps 86 i to iii to specify an additional auxiliary server, if required.
- 87 Click on the Next button.

88 Configure the following parameters, shown in Figure 3-140, using the recorded values from the primary database installation. Click on the Next button.

- Primary IP Address
- Primary Instance Name (typically samdb1)
- Primary SYS Password
- Primary Database Listener Port (typically 1523)
- Primary Database Proxy Port (typically 9002)

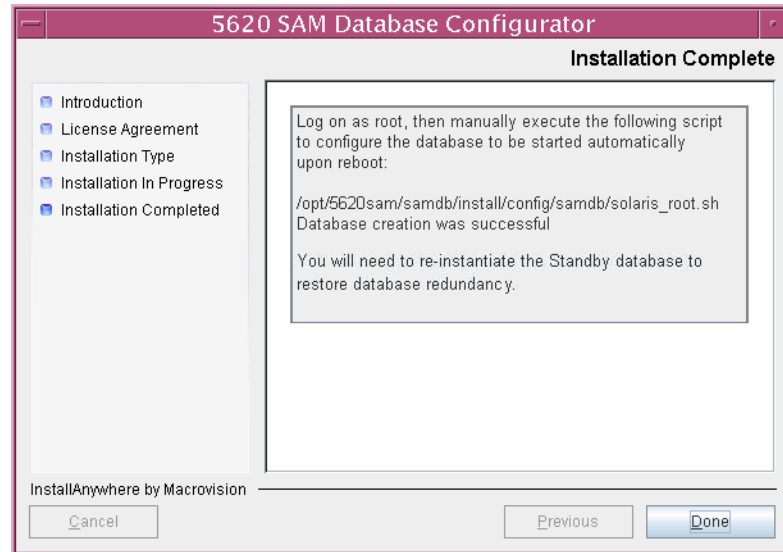
Figure 3-140 Primary Database Info

89 You are prompted to begin standby database creation, as shown in Figure 3-141. Click on the Start Process button to begin.

Figure 3-141 Standby Database Configuration

- 90 When the panel in Figure 3-142 is displayed, the 5620 SAM database installation is complete, but as shown in the panel text, you must run a script to enable automatic database startup.

Figure 3-142 Installation Complete



Perform the following steps to run the script described in the panel.

- i Open a separate console window as a user with root or root-equivalent privileges.
- ii Enter the following at the CLI prompt:

```
path/install/config/samdb/solaris_root.sh
```

where *path* is the 5620 SAM database installation location, typically /opt/5620sam/samdb

The script returns messages similar to the following:

```
creating link for /usr/local/lib/libiconv.so.2
creating link for /usr/local/lib/libpopt.so.0
creating link for /usr/local/lib/libintl.so.8
creating link for /usr/local/lib/libgcc_s.so.1
```

- iii When the script execution is complete, close the console window.

- 91 Click on the Done button to close the database installer.

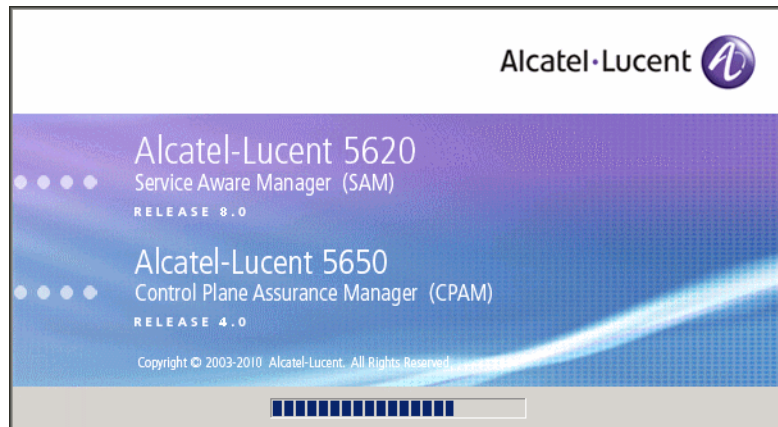
The next section of the procedure describes the installation of the primary 5620 SAM server. You can install the primary server on the same station as the primary database or on another station. Server installation requires root-equivalent privileges.

**Install primary server**

- 92 Log in to the station that is to be the primary server station as a user with root or root-equivalent privileges.
- 93 Open a console window.
- 94 Place the 5620 SAM software DVD-ROM in a DVD-ROM drive.
- 95 Navigate to the DVD-ROM drive.
- 96 Perform one of the following to open the 5620 SAM server installer.
  - a On a Sun SPARC station:
    - i Enter the following at the CLI prompt:  
`# cd Solaris ↵`
    - ii Enter the following at the CLI prompt:  
`# ./ServerInstall_SAM_8_0_revision.bin ↵`  
 where  
*revision* is the revision identifier, such as R1, R3, or another descriptor
  - b On a Sun X86-based station:
    - i Enter the following at the CLI prompt:  
`# cd Solarisx86 ↵`
    - ii Enter the following at the CLI prompt:  
`# ./ServerInstall_x86_SAM_8_0_revision.bin ↵`  
 where  
*revision* is the revision identifier, such as R1, R3, or another descriptor

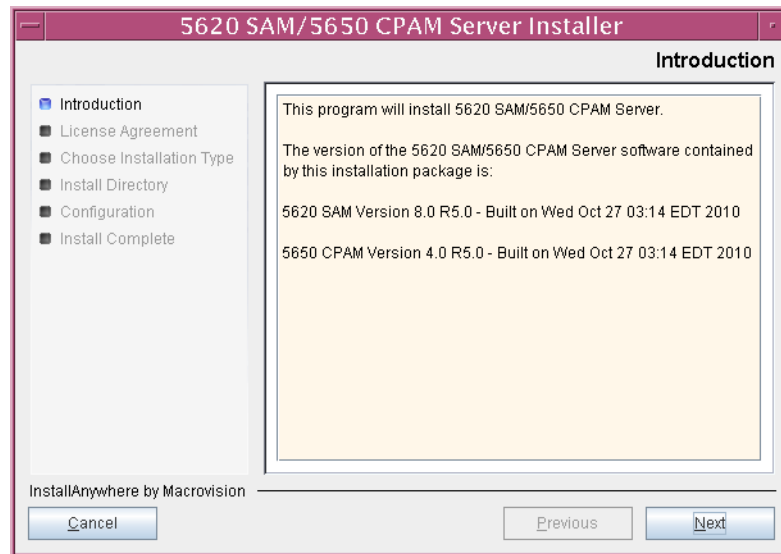
The splash screen shown in Figure 3-143 opens.

Figure 3-143 5620 SAM installer



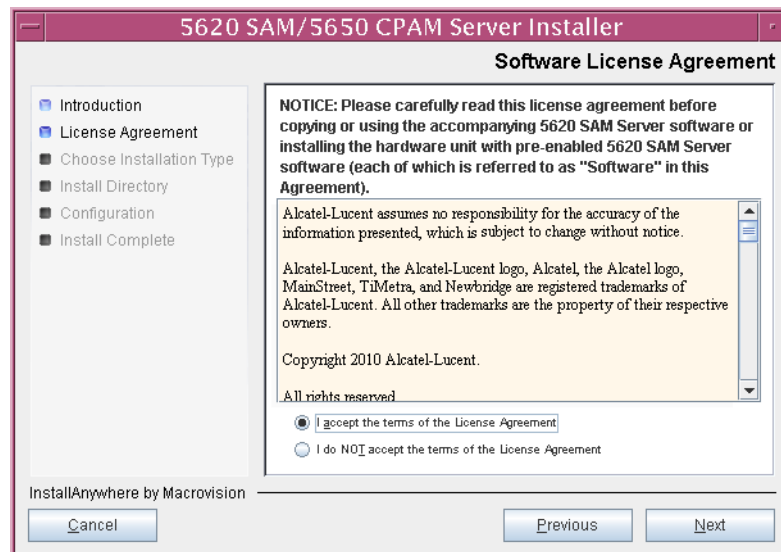
- 97 The 5620 SAM server installer opens, as shown in Figure 3-144. The left pane indicates the installation progress. The right pane displays release information about the software. Click on the Next button.

Figure 3-144 Introduction



- 98 Review and accept the terms of the license agreement shown in Figure 3-145. Click on the Next button.

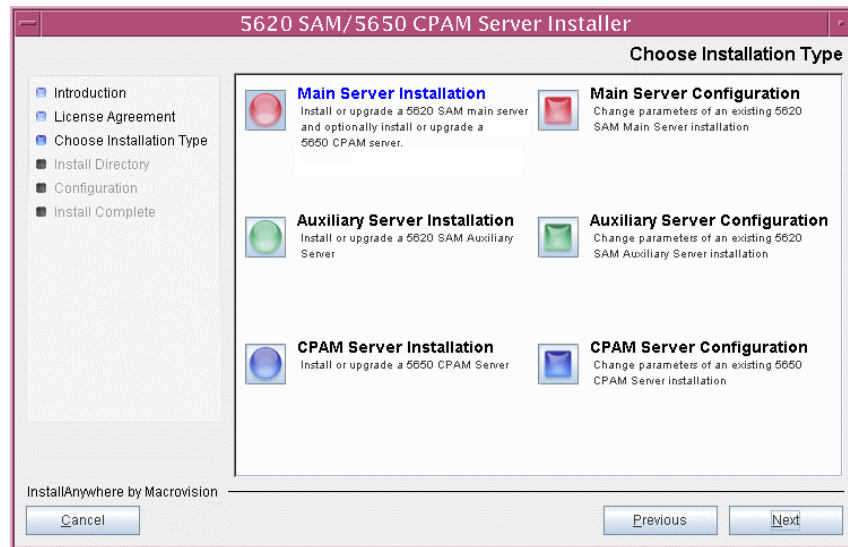
Figure 3-145 Software License Agreement





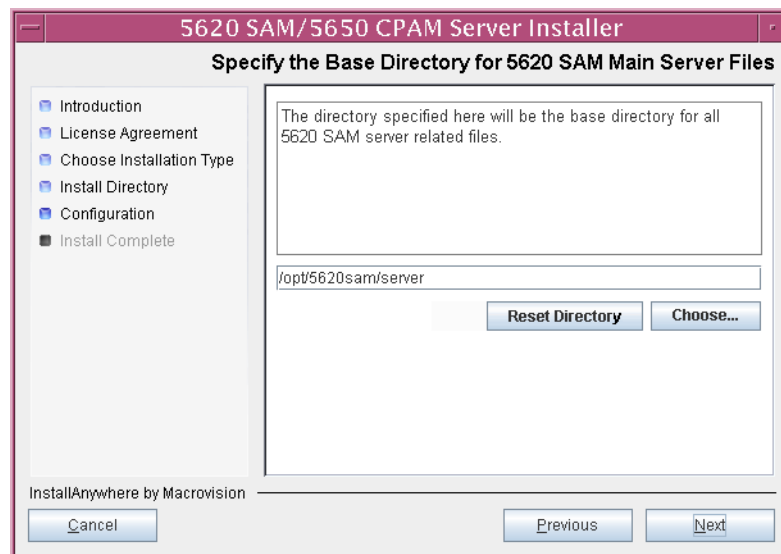
- 99 Select Main Server Installation, as shown in Figure 3-146. Click on the Next button.

Figure 3-146 Choose Installation Type



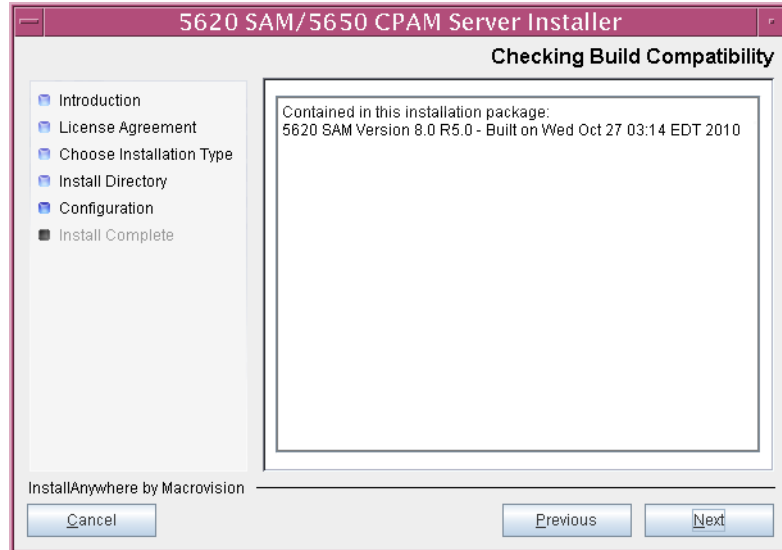
- 100 Specify a base directory in which to install the primary 5620 SAM main server software (typically /opt/5620sam/server), as shown in Figure 3-147. Click on the Next button.

Figure 3-147 Specify the Base Directory for 5620 SAM Main Server Files



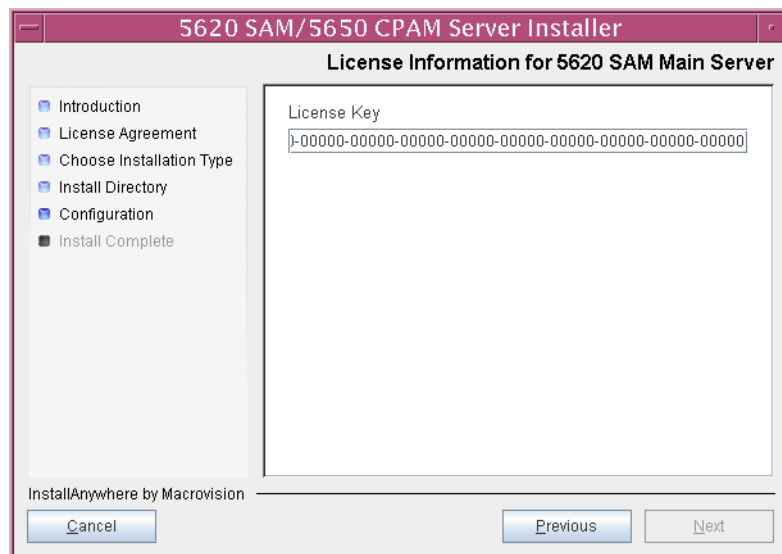
- 101 As shown in Figure 3-148, the installer indicates which release of 5620 SAM software is to be installed. Verify the information. Click on the Next button.

Figure 3-148 Checking Build Compatibility



- 102 Enter the License Key information exactly as received from Alcatel-Lucent. Include the dashes in the key, as shown in Figure 3-149. Click on the Next button.

Figure 3-149 License information for 5620 SAM Main Server



103 Configure the following parameters shown in Figure 3-150, then click on the Next button.

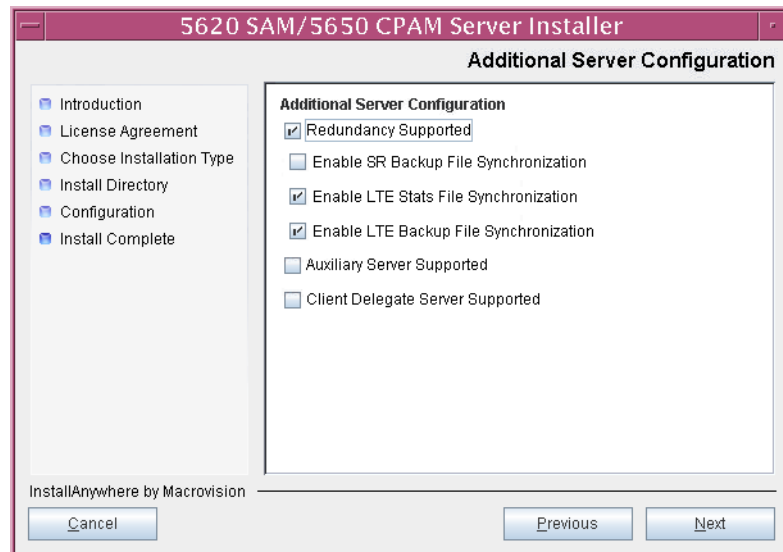
- Redundancy Supported
- Enable SR Backup File Synchronization
- Enable LTE Stats File Synchronization
- Enable LTE Backup File Synchronization
- Auxiliary Server Supported
- Client Delegate Server Supported



**Note 1** — You must select the Redundancy Supported parameter.

**Note 2** — The Enable SR Backup File Synchronization and Enable LTE Backup File Synchronization parameters are displayed only when the Redundancy Supported parameter is enabled.

Figure 3-150 Additional Server Configuration



104 Configure the following parameters, shown in Figure 3-151, using the recorded values from the primary database installation. Click on the Next button.

- Primary Database IP Address
- Primary Database Server Port (typically 1523)
- Primary Database Instance Name (typically samdb1)
- Database User Name (typically samuser)
- Database User Password
- Primary Database Proxy Port (typically 9002)

Figure 3-151 Primary Database Configuration

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window with the 'Primary Database Configuration' tab selected. On the left is a navigation pane with the following items: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (selected), and Install Complete. The main area contains a text box with instructions: 'If NAT (network address translation) is to be used, enter the primary 5620 SAM database's public IP address, as known to the 5620 SAM server.' Below this are six input fields: 'Primary Database Server IP Address' (empty), 'Primary Database Server Port' (1523), 'Primary Database Instance Name' (samdb1), 'Database User Name' (samuser), 'Database User Password' (masked with asterisks), and 'Primary Database Proxy Port' (9002). At the bottom left is the text 'InstallAnywhere by Macrovision' and a 'Cancel' button. At the bottom right are 'Previous' and 'Next' buttons.

105 Configure the following database backup parameters shown in Figure 3-152, then click on the Next button:

- Online Database Backup Interval (hours) (typically 24)
- Online Backup Destination (typically /opt/5620sam/dbbackup)
- Number Of Backup Sets (typically 3)



**Note** — The Online Backup Destination is a path on the file system of the database station specified in step 104.

Figure 3-152 Online Database Backup

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window. The title bar is red. The window has a sidebar on the left with a list of steps: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration, and Install Complete. The 'Configuration' step is currently selected. The main area is titled 'Online Database Backup'. It contains a text box with the instruction: 'The database backup directory resides on the database workstation. Please ensure that the specified directory exists on the database workstation and it is writable.' Below this are three input fields: 'Online Backup Interval (Hours)' with the value '24', 'Online Backup Destination' with the value '/opt/5620sam/dbbackup', and 'Number Of Backup Sets' with the value '3'. At the bottom of the window, there are three buttons: 'Cancel', 'Previous', and 'Next'. The 'Next' button is highlighted.

106 Configure the following parameters shown in Figure 3-153 using the recorded values from the standby database installation, then click on the Next button:

- Database Server IP Address
- Database Instance Name (typically samdb2)
- Database Proxy Port (typically 9002)
- Enable Database Backup File Synchronization

Figure 3-153 Standby Database Configuration

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window with the 'Standby Database Configuration' tab selected. On the left, a navigation pane lists the installation steps: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (selected), and Install Complete. The main area contains a text box with instructions about NAT, followed by input fields for 'Database Server IP Address' (highlighted in yellow), 'Database Instance Name' (containing 'samdb2'), and 'Database Proxy Port' (containing '9002'). There is an unchecked checkbox for 'Enable Database Backup File Synchronization'. At the bottom, there are 'Cancel', 'Previous', and 'Next' buttons. The footer text reads 'InstallAnywhere by Macrovision'.

- 107 The panel in Figure 3-154 is displayed if you select “Auxiliary Server Supported” in step 103. Otherwise, go to step 109.

Perform the following steps to specify an auxiliary server, if required.

- i Configure the following parameters shown in Figure 3-154:
  - NAT (network address translation) Used  
Select this parameter only if NAT is to be used between the 5620 SAM main and auxiliary servers.
  - Private IP (accessible only by this server)
  - Public IP (accessible to auxiliary)
  - Server Port (typically 12800)
  - Enable Stats Collection on Auxiliary Servers
  - Enable Call Trace Collection on Auxiliary Servers



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 3-154.

Figure 3-154 Main Server Configuration for Auxiliary Servers

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window. The title bar is '5620 SAM/5650 CPAM Server Installer'. The main title is 'Main Server Configuration for Auxiliary Servers'. On the left is a navigation pane with the following items: Introduction (selected), License Agreement, Choose Installation Type, Install Directory, Configuration, and Install Complete. The main area contains the following text and controls:

Enter the the network interface information that this 5620 SAM main server requires to communicate with the 5620 SAM auxiliary servers.  
At least one service type checkbox must be selected.

☒ NAT (network address translation) Used

Private IP (accessible only by this server) 192.168.200.111

Public IP (accessible to auxiliary) [Yellow highlighted text box]

Server Port 12800

☐ Enable Stats Collection on Auxiliary Servers

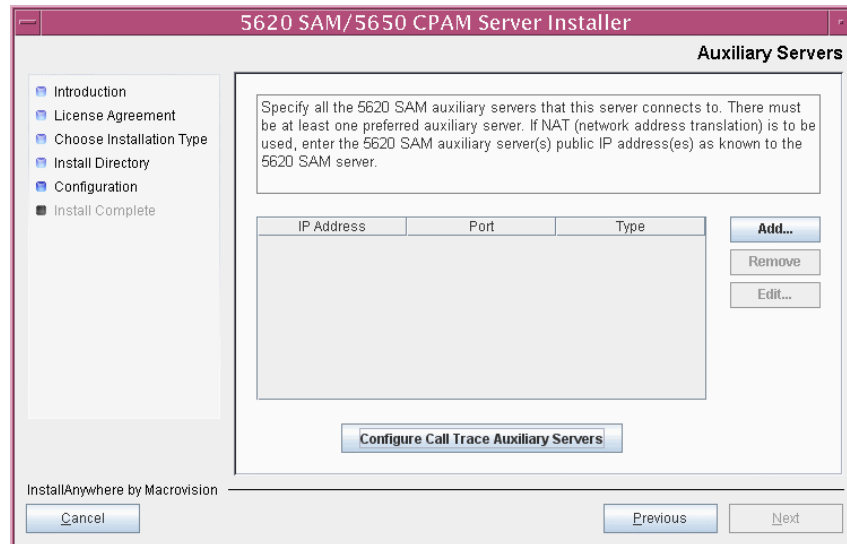
☒ Enable Call Trace Collection on Auxiliary Servers

At the bottom left is 'InstallAnywhere by Macrovision'. At the bottom right are 'Cancel', 'Previous', and 'Next' buttons.

- ii Click on the Next button.

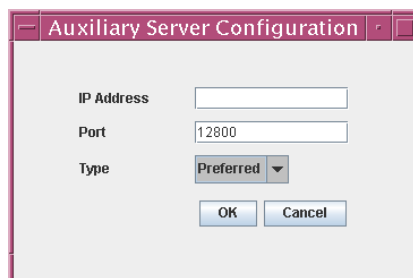
- iii Click on the Add button shown in Figure 3-155. The form shown in Figure 3-156 opens.

Figure 3-155 Auxiliary Servers



**Note —** To minimize network latency between this main server and the Preferred auxiliary server that you specify in this step, specify an auxiliary server in the local network rather than an auxiliary server that is geographically remote.

Figure 3-156 Auxiliary Server Configuration



- iv Configure the following parameters shown in Figure 3-156:
- IP Address
  - Port (typically 12800)
  - Type (Preferred or Reserved)
- v Click on the OK button to save the information and close the form.
- vi Repeat steps 107 iii to v to specify an additional auxiliary server, if required.
- vii If “Enable Call Trace Collection on Auxiliary Servers” is selected in step 107 i, click on the “Configure Call Trace Auxiliary Servers” button shown in Figure 3-155. Otherwise, go to step 108.



- viii The form shown in Figure 3-157 opens. Select a preferred auxiliary server in the upper left panel and the associated reserved auxiliary server in the lower left panel, and click on the “Make Pair from Selected” button. The auxiliary servers move to the list on the right side of the form.

Figure 3-157 Configure Call Trace Auxiliary Servers

Select one preferred server and one reserved server from the left side. Add those servers to the right side using the 'Make Pair from Selected' button.

| Preferred Auxiliary Servers |       |
|-----------------------------|-------|
| IP Address                  | Port  |
| 10.1.1.1                    | 12800 |
| 10.1.1.2                    | 12800 |
| 10.1.1.3                    | 12800 |

| Reserved Auxiliary Servers |       |
|----------------------------|-------|
| IP Address                 | Port  |
| 10.2.2.1                   | 12800 |
| 10.2.2.2                   | 12801 |
| 10.2.2.3                   | 12800 |

| Server Pairs        |                    |
|---------------------|--------------------|
| Preferred Server IP | Reserved Server IP |

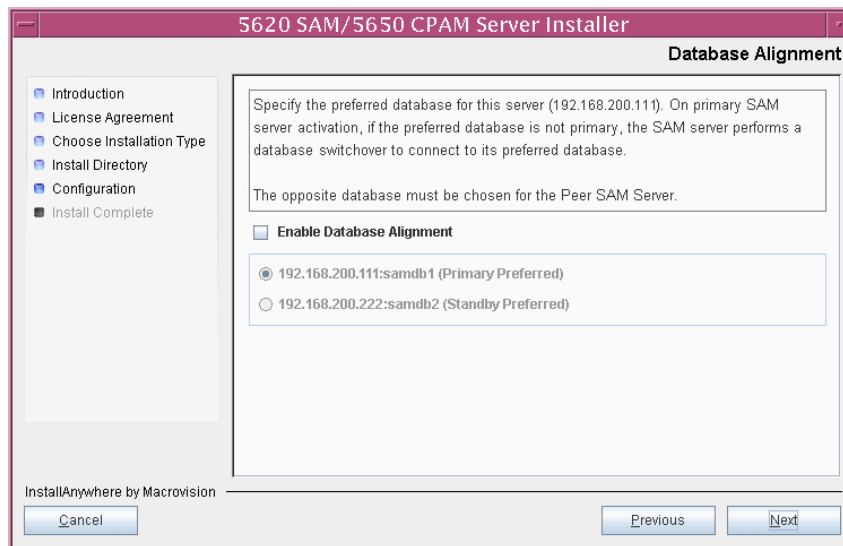
Make Pair from Selected      Remove Selected Pair      OK      Cancel

- ix Repeat step 107 viii to configure another call-trace auxiliary server pair, if required.

108 Click on the Next button.

- 109 If you select the Enable Database Alignment parameter shown in Figure 3-158, you must specify the preferred database of this main server. Click on the Next button.

Figure 3-158 Database Alignment



110 Perform the following steps.

- i Configure the following parameters shown in Figure 3-159:
  - Server Domain Name (typically 5620sam)  
This is a value that uniquely identifies the 5620 SAM server cluster.
  - Use Hostname for Communication  
Select this parameter if the main server is to use multiple interfaces for GUI and OSS client communication.

Figure 3-159 Main Server Configuration for Clients

**5620 SAM/5650 CPAM Server Installer**

**Main Server Configuration for Clients**

Enter the network interface information that the GUI and OSS clients require to communicate with this 5620 SAM main server.

If multiple addresses are to be used for communication with GUI clients, OSS clients, and auxiliary servers, a hostname must be provided for the Public Hostname field.

Server Domain Name

☐ Use Hostname for Communication (recommended if NAT is used)

☒ NAT (network address translation) Used

Private IP (accessible only by this server)

Public IP (accessible to clients)

EJB JNDI Server port

EJB JMS Server port

☐ Enable 5670 RAM

☐ Enable 3GPP OSS Interface

InstallAnywhere by Macrovision

- ii If you select Use Hostname for Communication, go to step 110 vi.
- iii Configure the following parameters:
  - NAT (network address translation) Used
  - Private IP (accessible only by this server)
  - Public IP (accessible to clients)
  - EJB JNDI Server port (typically 1099)
  - EJB JMS Server port (typically 8093)
  - Enable 5670 RAM
  - Enable 3GPP OSS Interface



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 3-159.

- iv Click on the Next button.

- v Go to step 112.
- vi Configure the following parameters shown in Figure 3-160:
  - NAT (network address translation) Used
  - Private IP (accessible only by this server)
  - Public Hostname
  - EJB JNDI Server port (typically 1099)
  - EJB JMS Server port (typically 8093)
  - Enable 5670 RAM
  - Enable 3GPP OSS Interface



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 3-160.

Figure 3-160 Main Server Configuration for Clients

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window. The title bar is purple. The main window has a sidebar on the left with a list of steps: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (selected), and Install Complete. The main area is titled 'Main Server Configuration for Clients'. It contains the following fields and options:

- A text box for 'Server Domain Name' with the value '5620sam'.
- Two checked checkboxes: 'Use Hostname for Communication (recommended if NAT is used)' and 'NAT (network address translation) Used'.
- A dropdown menu for 'Private IP (accessible only by this server)' showing '192.168.200.111'.
- A text box for 'Public Hostname'.
- A text box for 'EJB JNDI Server port' with the value '1099'.
- A text box for 'EJB JMS Server port' with the value '8093'.
- Two unchecked checkboxes: 'Enable 5670 RAM' and 'Enable 3GPP OSS Interface'.

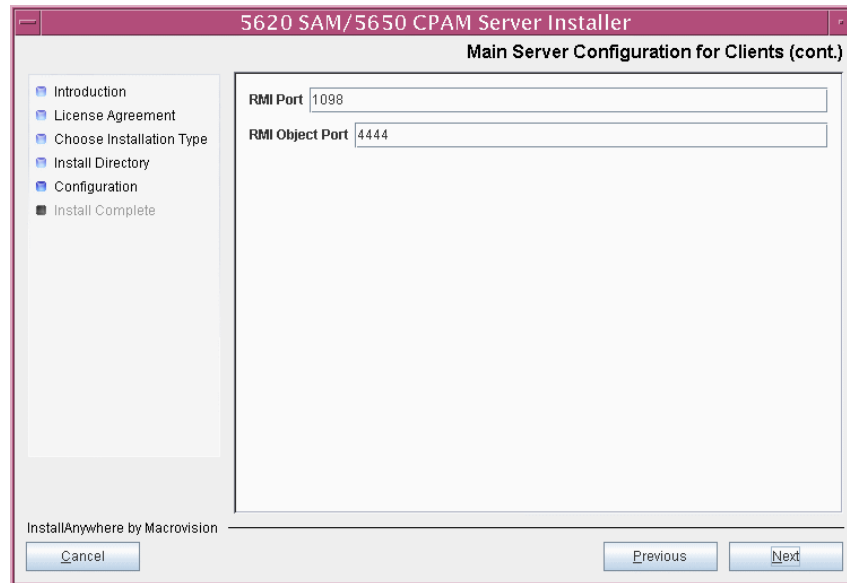
At the bottom, there is a 'Cancel' button on the left and 'Previous' and 'Next' buttons on the right. The text 'InstallAnywhere by Macrovision' is visible in the bottom left corner.

- vii Click on the Next button.

111 Configure the following parameters shown in Figure 3-161, then click on the Next button:

- RMI Port (typically 1098)
- RMI Object Port (typically 4444)

Figure 3-161 Main Server Configuration for Clients (cont.)



112 Configure the following parameters shown in Figure 3-162:

- NAT (network address translation) Used  
Select this parameter only if NAT is to be used between this 5620 SAM server and the peer 5620 SAM server.
- Private IP (accessible only by this server)
- Public IP (accessible to peer server)
- High Available JNDI Port (typically 1100)
- TCP Port Cluster Number (typically 11800)



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 3-162.

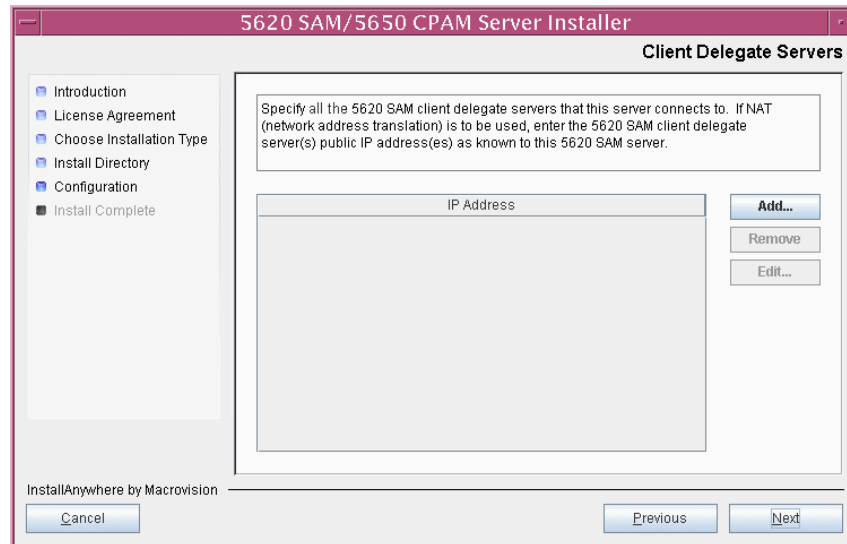
Figure 3-162 Main Server Configuration for Peer Server

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window. The title bar reads '5620 SAM/5650 CPAM Server Installer'. The main window title is 'Main Server Configuration for Peer Server'. On the left is a navigation pane with the following items: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (selected), and Install Complete. The main area contains a text box with the instruction: 'Enter the network interface information that this 5620 SAM main server requires to communicate with the peer server.' Below this are several configuration options: a checked checkbox for 'NAT (network address translation) Used', a 'Private IP (accessible only by this server)' dropdown menu showing '192.168.200.222', a 'Public IP (accessible to peer server)' text box, a 'High Available JNDI Port' text box with '1100', and a 'TCP Port Cluster Number' text box with '11800'. At the bottom left is the text 'InstallAnywhere by Macrovision' and a 'Cancel' button. At the bottom right are 'Previous' and 'Next' buttons.

- 113 The panel in Figure 3-163 is displayed if you select “Client Delegate Server Supported” in step 103. Otherwise, go to step 114.

Click on the Add button to specify the client delegate server IP addresses, as required. If NAT is used between the 5620 SAM server and client delegate servers, specify the public IP address. Click on the Next button.

Figure 3-163 Client Delegate Servers



114 Perform one of the following to specify where the 5620 SAM user documentation is to be stored.

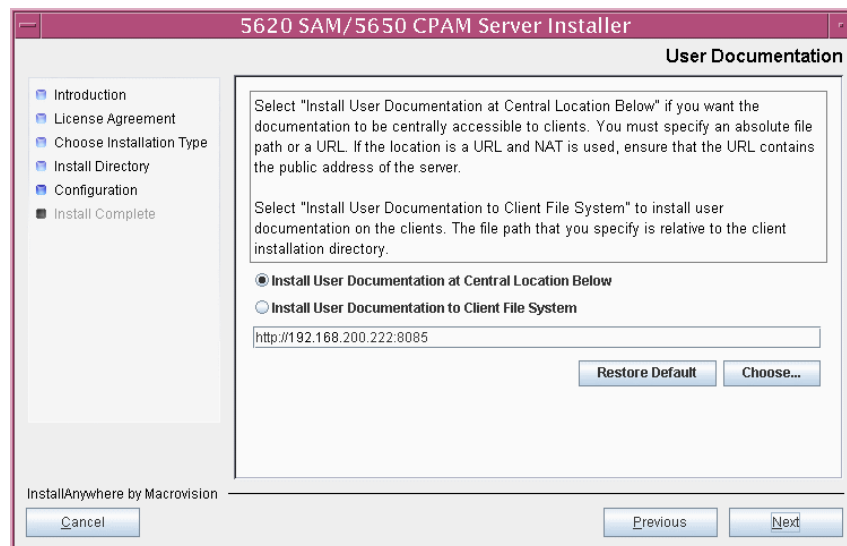
- a To store the documentation in a central location that is available to all clients, perform the following steps.
  - i Select the “Install User Documentation at Central Location Below” parameter, as shown in Figure 3-164.
  - ii To accept the default user documentation location that is displayed, go to step 115.



**Note —** If NAT is to be used between the 5620 SAM server and clients, you must update the default location using the public IP address of the server, or the documentation is not accessible to clients.

- iii Specify a location for the 5620 SAM user documentation in the field below the parameters.
- iv Copy the contents of the User\_Documentation directory on the 5620 SAM software DVD-ROM to the location specified in step iii.
- v Click on the Next button. A dialog box appears.
- vi Click on the OK button.

Figure 3-164 User Documentation





- b To store a copy of the documentation on the client file system, perform the following steps.
  - i Select the “Install User Documentation to Client File System” parameter shown in Figure 3-164.
  - ii Specify a file path relative to the 5620 SAM client installation directory. The path must not contain a leading slash.

For example, if the installation directory is /opt/5620sam/client and you specify Documents as the location, the documentation is installed in the following directory:

/opt/5620sam/client/Documents

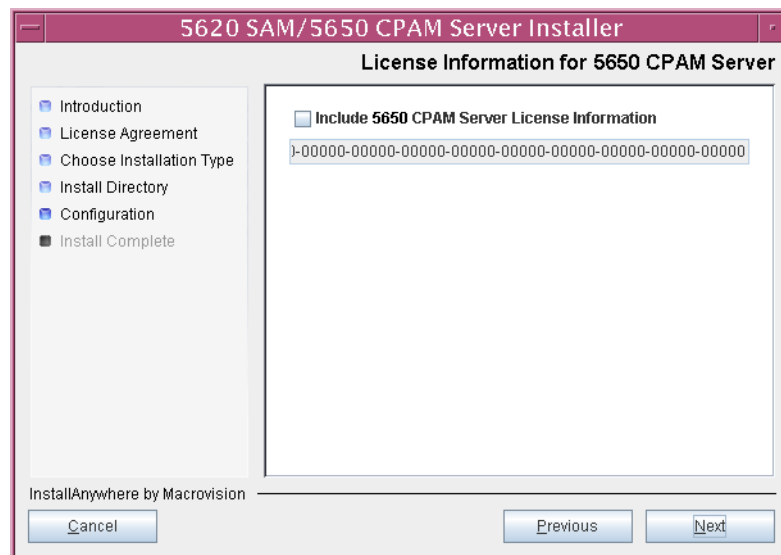


**Note** — The 5620 SAM client uninstaller cannot remove the documentation unless it is installed below the nms directory in the 5620 SAM client installation directory, for example, /opt/5620sam/client/nms/Documents.

115 Click on the Next button.

- 116 Specify whether the 5620 SAM configuration includes a 5650 CPAM server, as shown in Figure 3-165. If it does, enter the 5650 CPAM license key provided by Alcatel-Lucent. Include the dashes in the key. Click on the Next button.

Figure 3-165 License Information for 5650 CPAM Server



117 Configure the following parameters shown in Figure 3-166, then click on the Next button:

- NAT (network address translation) Used  
Select this parameter only if NAT is to be used between the 5620 SAM main server and the managed network.
- SNMP Trap Receiving IPv4 Address
- SNMP Trap Receiving IPv6 Address
- SNMP Trap Receiving Port (typically 162)
- Trap Log Id (typically 98)

Figure 3-166 SNMP Configuration

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window with the 'SNMP Configuration' tab selected. On the left is a navigation pane with links: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (selected), and Install Complete. The main area contains a text box with instructions: 'If NAT (network address translation) is to be used, enter the 5620 SAM main server's public IP address as known to the devices within the managed network.' Below this are two unchecked checkboxes: 'NAT (network address translation) Used' and 'IPv6 Address Used'. There are four input fields: 'SNMP Trap Receiving IPv4 Address' with the value '192.168.200.122', 'SNMP Trap Receiving IPv6 Address' (empty), 'SNMP Trap Receiving Port' with the value '162', and 'Trap Log Id' with the value '98'. At the bottom are 'Cancel', 'Previous', and 'Next' buttons. The footer text reads 'InstallAnywhere by Macrovision'.

118 Configure the following parameters shown in Figure 3-167, then click on the Next button:

- Peer Server IP Address
- Peer Server Trap Log Id (typically 98)
- Peer Server SNMP Trap Receiving IPv4 Address
- Peer Server SNMP Trap Receiving IPv6 Address
- Peer Server SNMP Port Number (typically 162)
- Peer Server TCP Port Cluster Number (typically 11800)

Figure 3-167 Peer Main Server Configurations

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window. The title bar is purple with the text '5620 SAM/5650 CPAM Server Installer'. The main window has a purple header bar with the text 'Peer Main Server Configurations'. On the left side, there is a vertical list of steps: 'Introduction', 'License Agreement', 'Choose Installation Type', 'Install Directory', 'Configuration' (which is highlighted with a blue square), and 'Install Complete' (which is preceded by a black square). The main area of the window contains a text box with the following text: 'If NAT (network address translation) is to be used, enter the 5620 SAM peer server's public IP address as known to the 5620 SAM server. Also enter the 5620 SAM peer server's public IP address as known to the devices within the managed network.' Below this text box are six input fields: 'Peer Server IP Address' (empty), 'Peer Server Trap Log Id' (containing '98'), 'Peer Server SNMP Trap Receiving IPv4 Address' (empty), 'Peer Server SNMP Trap Receiving IPv6 Address' (empty), 'Peer Server SNMP Trap Receiving Port' (containing '162'), and 'Peer Server TCP Port Cluster Number' (containing '11800'). At the bottom left, there is a small text 'InstallAnywhere by Macrovision' and a 'Cancel' button. At the bottom right, there are 'Previous' and 'Next' buttons.

119 If you selected the Use Hostname for Communication parameter in step 110, go to step 121.

120 Configure the following parameters shown in Figure 3-168, then click on the Next button:

- 5620 SAM Peer Server IP Address
- 5620 SAM JNDI High Available Peer Server Port (typically 1100)
- 5620 SAM JNDI Peer Server Port (typically 1099)

Figure 3-168 Peer Main Server Configurations (cont.)

**5620 SAM/5650 CPAM Server Installer**

**Peer Main Server Configurations (cont.)**

Enter the IP address of the network interface the GUI and OSS clients require to communicate with the peer server. If NAT (network address translation) is to be used, specify the public IP address as known to the 5620 SAM clients.

If multiple addresses are to be used for communication with GUI clients, OSS clients, and auxiliary servers, a hostname must be provided for the 5620 SAM Peer Server Hostname field.

5620 SAM Peer Server IP Address

5620 SAM JNDI High Available Peer Server Port

5620 SAM JNDI Peer Server Port

InstallAnywhere by Macrovision

121 Configure the following parameters shown in Figure 3-169, then click on the Next button:

- 5620 SAM Peer Server Hostname
- 5620 SAM JNDI High Available Peer Server Port (typically 1100)
- 5620 SAM JNDI Peer Server Port (typically 1099)

Figure 3-169 Peer Main Server Configurations (cont.)

**5620 SAM/5650 CPAM Server Installer**

**Peer Main Server Configurations (cont.)**

Enter the IP address of the network interface the GUI and OSS clients require to communicate with the peer server. If NAT (network address translation) is to be used, specify the public IP address as known to the 5620 SAM clients.

If multiple addresses are to be used for communication with GUI clients, OSS clients, and auxiliary servers, a hostname must be provided for the 5620 SAM Peer Server Hostname field.

5620 SAM Peer Server Hostname

5620 SAM JNDI High Available Peer Server Port

5620 SAM JNDI Peer Server Port

InstallAnywhere by Macrovision

122 If you require 5620 SAM client navigation from a 5620 NM system, select the “Enable Navigation from External Systems” parameter shown in Figure 3-170 and specify the TCP port that the client is to use for accepting navigation requests. Click on the Next button.

Figure 3-170 Navigation from External Systems

**5620 SAM/5650 CPAM Server Installer**

**Navigation from External Systems**

Select this option to enable GUI navigation from a 5620 NM system.

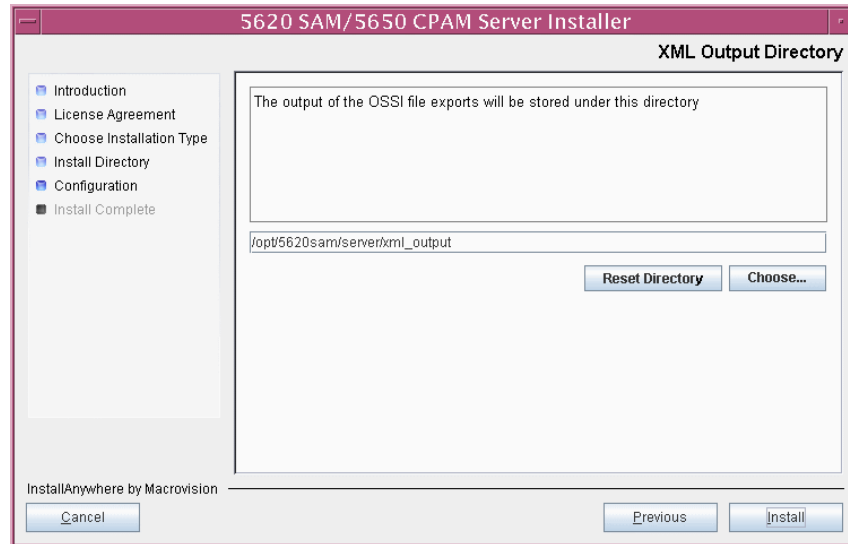
☐ Enable Navigation from External Systems

TCP port for accepting GUI navigation requests

InstallAnywhere by Macrovision

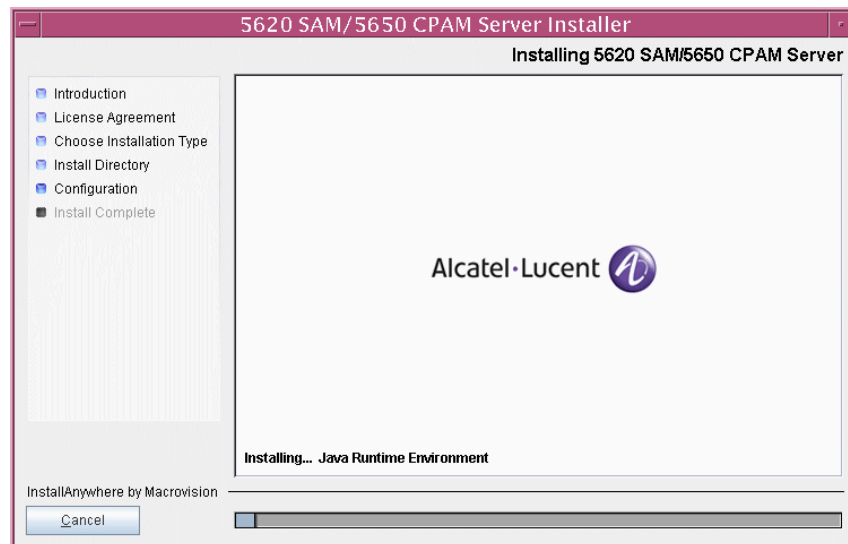
- 123 Specify an OSS XML output location (typically /opt/5620sam/server/xml\_output), as shown in Figure 3-171. Click on the Install button to begin the server installation.

Figure 3-171 XML Output Directory



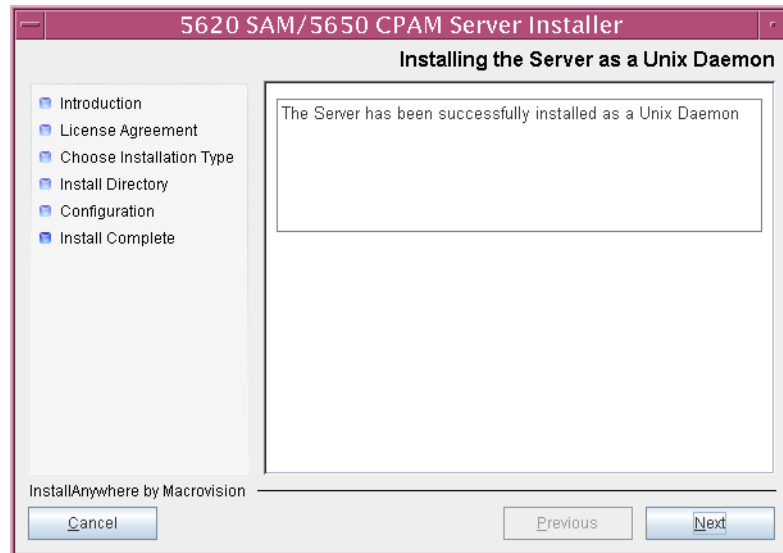
The next panel displays installation progress, as shown in Figure 3-172.

Figure 3-172 Installing 5620 SAM/5650 CPAM Server



- 124 As shown in Figure 3-173, the 5620 SAM server is installed as a UNIX daemon. Click on the Next button.

Figure 3-173 Installing the Server as a Unix Daemon

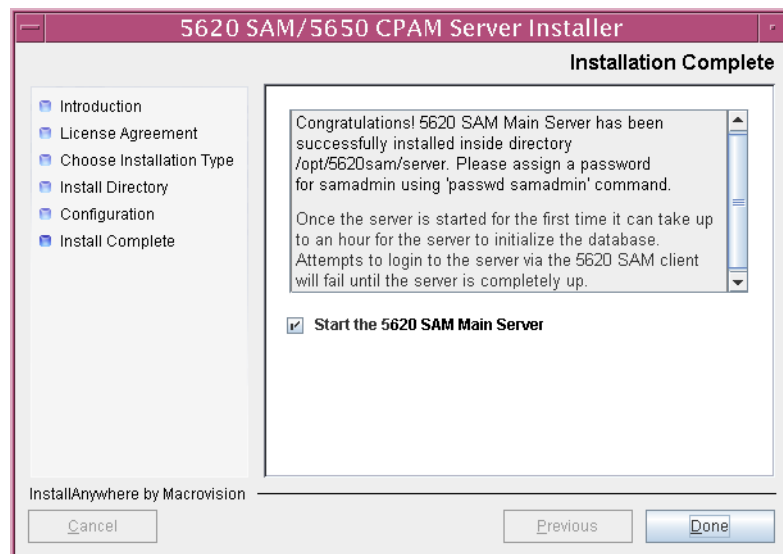


- 125 When the server installation is complete, as shown in Figure 3-174, configure the “Start the 5620 SAM Main Server” parameter to specify whether you want the server to start immediately after the installation.



**Caution** — If the 3GPP OSS interface is enabled in step 110, ensure that the “Start the 5620 SAM Main Server” parameter is not selected.

Figure 3-174 Installation Complete



126 View the panel text to see whether it states that you must assign a password to samadmin, as shown in Figure 3-174. This information is required in step 128.

127 Click on the Done button to close the server installer. If you specified that the server is to start after installation, the server starts. Initial server startup can take twenty minutes or more.

128 If this is the first 5620 SAM server installation on the station, the installer creates a user account called samadmin for 5620 SAM system administration.

If you must assign a password to samadmin, as determined in step 126, perform the following steps.

i Enter the following at the CLI prompt:

```
passwd samadmin
```

The following prompt is displayed:

```
New Password:
```

ii Enter the new password and press ↵.

The following prompt is displayed:

```
Confirm New Password:
```

iii Enter the new password again and press ↵. The password is changed.

iv Record the new password and store it in a secure location.

129 If the 3GPP OSS interface is enabled in step 110, perform the following steps.

i Open the *path*/nms/cnbi/home/config/cnbi.properties file using a plain-text editor

where *path* is the 5620 SAM main server installation location, typically *opt/5620sam/server*

ii Locate the following line:

```
CNBI.SAMO.USER=
```

iii Edit the line to read:

```
CNBI.SAMO.USER=3GPP_OSS_user_name
```

where *3GPP\_OSS\_user\_name* is the user name that OSS applications must send in requests to the interface

iv Locate the following line:

```
CNBI.SAMO.PASSWORD=
```

v Edit the line to read:

```
CNBI.SAMO.PASSWORD=3GPP_OSS_password
```

where *3GPP\_OSS\_password* is the MD5-encrypted user password that OSS applications must send in requests to the interface



130 If you specified that the server is to start after installation, perform the following steps to verify that the 5620 SAM server is started.

- i Enter the following at the CLI prompt to switch to the samadmin user:

```
su - samadmin ↵
```

- ii Enter the following at the CLI prompt:

```
bash$ path/nms/bin/nmsserver.bash -s nms_status ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

The command returns server status information.

If the main server is not completely started, the first line of status information is the following:

```
Main Server is not ready...
```

The 5620 SAM server is completely started when the command returns the following line of output:

```
-- Primary Server is UP
```

- iii If the command output indicates that the server is not completely started, wait five minutes and enter the command again to check the output.

131 If you specified not to start the server immediately after the installation, perform the following steps to start the 5620 SAM main server manually.

- i Log in to the main server station as the samadmin user.

- ii Enter the following at the CLI prompt to change to the server binary directory:

```
bash$ cd path/nms/bin ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

- iii Enter the following at the CLI prompt to start the 5620 SAM server software:

```
bash$./nmsserver.bash start ↵
```

- iv Enter the following at the CLI prompt:

```
bash$ path/nms/bin/nmsserver.bash -s nms_status ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

The command returns server status information.

If the main server is not completely started, the first line of status information is the following:

```
Main Server is not ready...
```

The 5620 SAM server is completely started when the command returns the following line of output:

-- Primary Server is UP

- v If the command output indicates that the server is not completely started, wait five minutes and enter the command again to check the output.

132 Close the console window.

### Install client

133 Perform one of the following to install a 5620 SAM client.

- a Perform Procedure 2-3 or 2-4 to install a single-user client on Windows.
- b Perform Procedure 3-2 or 3-3 to install a single-user client on Solaris.
- c Perform Procedure 3-4 to install a client delegate server.

134 If the 3GPP OSS interface is enabled in step 110, perform the following steps.

- i Log in to a 5620 SAM GUI client as the admin user.
- ii Create a user account for 3GPP OSS interface access. Observe the following when you create the account:
  - The user name must be the user name specified in step 129.
  - The password must be the password specified in step 129.
  - The user account requires full permissions on the fm and oss packages.

See the *5620 SAM User Guide* for information about creating 5620 SAM user accounts.

The next section of the procedure describes the reinstantiation of the database on the standby database station.

### Reinstantiate database on standby station

135 Log in to a 5620 SAM client as the admin user.

136 Choose Administration→System Information from the 5620 SAM main menu. The System Information form opens with the General tab displayed.

137 Click on the Re-Instantiate Standby button. A dialog box appears.

138 Click on the Yes button. The database reinstantiation begins. You can view the reinstantiation status on the client GUI status bar or on the System Information form. The Standby Re-instantiation State changes from In Progress to Success when reinstantiation is complete. The start time of the reinstantiation is shown by the Last Attempted Standby Re-instantiation Time indicator.



**Note —** Database reinstantiation can take a long time when there is a large amount of statistics information to transfer.

139 When the reinstantiation is complete, close the System Information form.

The next section of the procedure describes the installation of the standby 5620 SAM server. You can install the standby server on the same station that contains the standby database, or on another station. Server installation requires root-equivalent privileges.

#### Install standby server

- 140 Log in to the station that is to be the standby server station as a user with root or root-equivalent privileges.
- 141 Open a console window.
- 142 Place the 5620 SAM software DVD-ROM in a DVD-ROM drive.
- 143 Navigate to the DVD-ROM drive.
- 144 Perform one of the following to open the 5620 SAM server installer.

a On a Sun SPARC station:

- i Enter the following at the CLI prompt:

```
cd Solaris ↵
```

- ii Enter the following at the CLI prompt:

```
./ServerInstall_SAM_8_0_revision.bin ↵
```

where

*revision* is the revision identifier, such as R1, R3, or another descriptor

b On a Sun X86-based station:

- i Enter the following at the CLI prompt:

```
cd Solarisx86 ↵
```

- ii Enter the following at the CLI prompt:

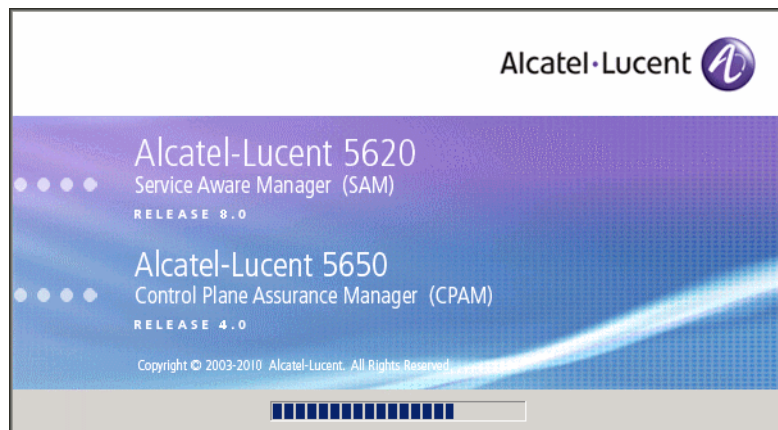
```
./ServerInstall_x86_SAM_8_0_revision.bin ↵
```

where

*revision* is the revision identifier, such as R1, R3, or another descriptor

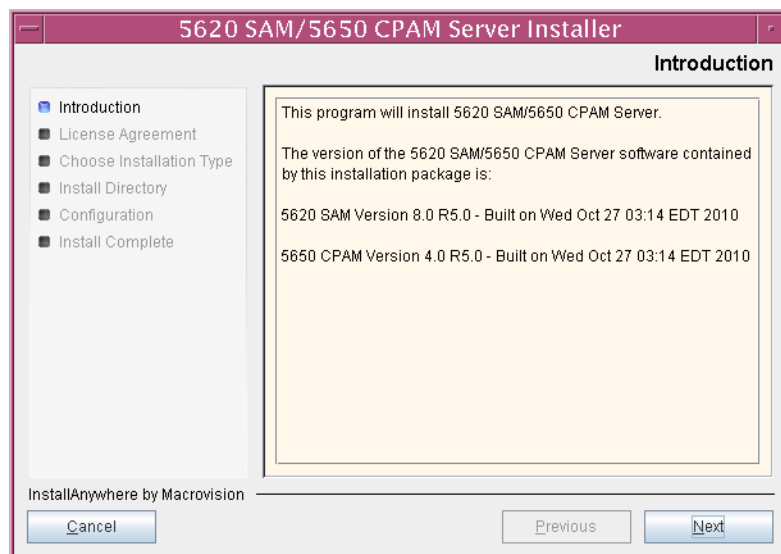
The splash screen shown in Figure 3-175 opens.

Figure 3-175 5620 SAM installer



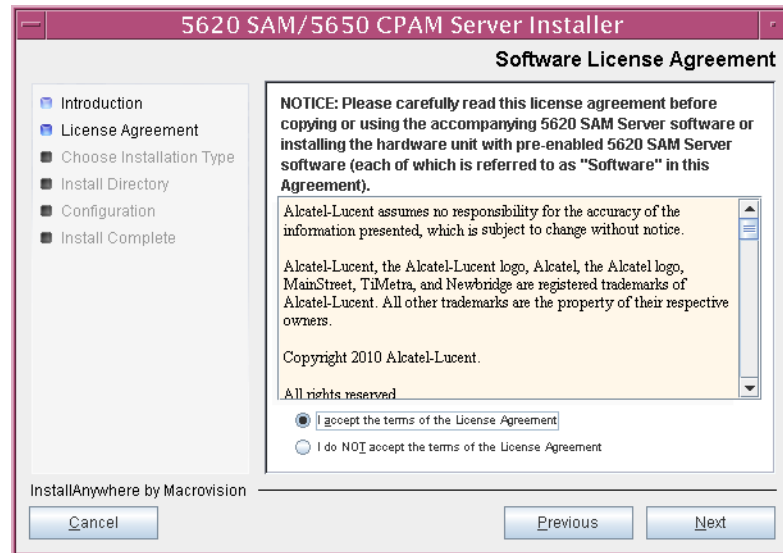
- 145 The 5620 SAM server installer opens, as shown in Figure 3-176. The left pane indicates the installation progress. The right pane displays release information about the software. Click on the Next button.

Figure 3-176 Introduction



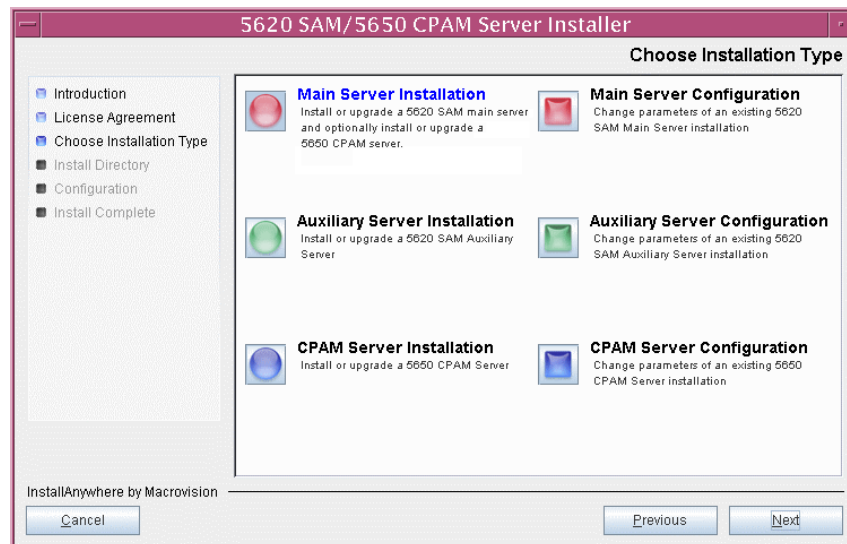
- 146 Review and accept the terms of the license agreement shown in Figure 3-177. Click on the Next button.

Figure 3-177 Software License Agreement



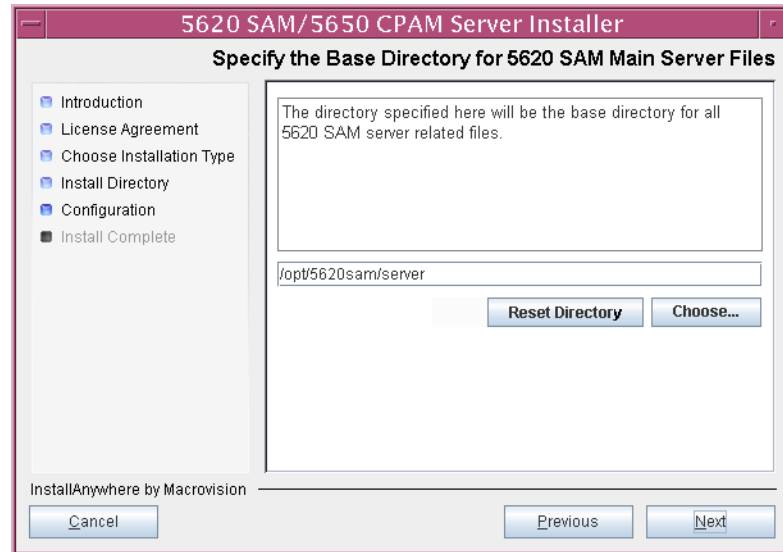
- 147 Select Main Server Installation, as shown in Figure 3-178. Click on the Next button.

Figure 3-178 Choose Installation Type



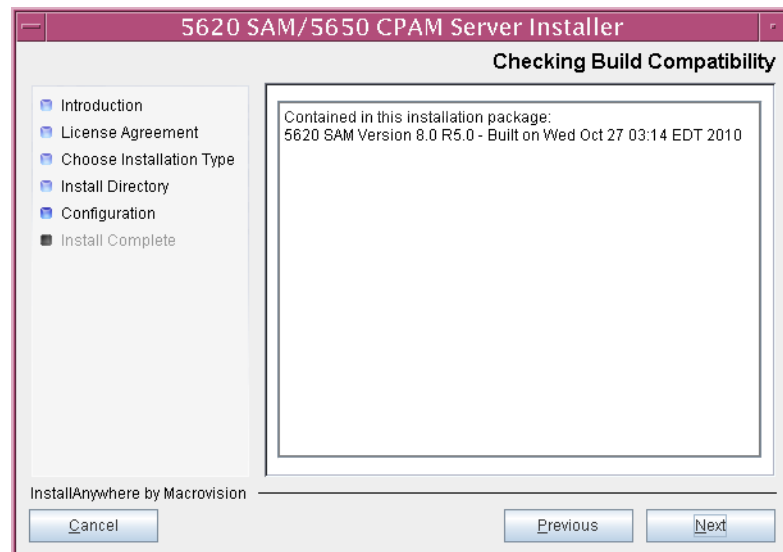
- 148 Specify a base directory in which to install the standby 5620 SAM main server software (typically /opt/5620sam/server), as shown in Figure 3-179. Click on the Next button.

Figure 3-179 Specify the Base Directory for 5620 SAM Main Server Files



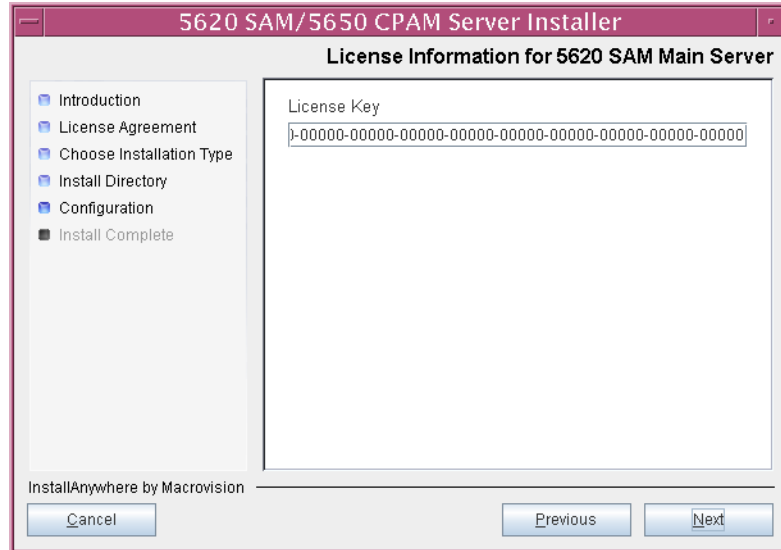
- 149 As shown in Figure 3-180, the installer indicates which release of 5620 SAM software is to be installed. Verify the information. Click on the Next button.

Figure 3-180 Checking Build Compatibility



- 150 Enter the License Key information exactly as received from Alcatel-Lucent. Include the dashes in the key, as shown in Figure 3-181. Click on the Next button.

Figure 3-181 License Information for 5620 SAM Main Server



151 Configure the following parameters shown in Figure 3-182, then click on the Next button.

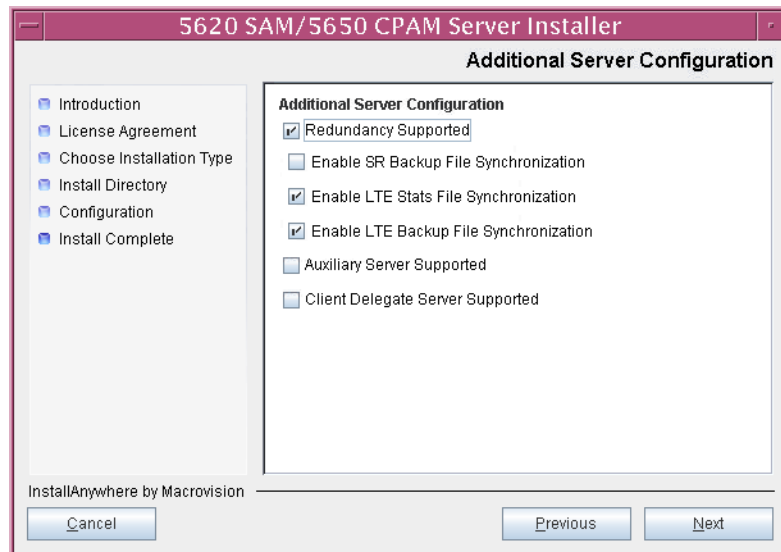
- Redundancy Supported
- Enable SR Backup File Synchronization
- Enable LTE Stats File Synchronization
- Enable LTE Backup File Synchronization
- Auxiliary Server Supported
- Client Delegate Server Supported



**Note 1** — You must select the Redundancy Supported parameter.

**Note 2** — The Enable SR Backup File Synchronization and Enable LTE Backup File Synchronization parameters are displayed only when the Redundancy Supported parameter is enabled.

Figure 3-182 Additional Server Configuration





152 Configure the following parameters, shown in Figure 3-183 using the recorded values from the primary database installation. Click on the Next button.

- Primary Database IP Address
- Primary Database Server Port (typically 1523)
- Primary Database Instance Name (typically samdb1)
- Database User Name (typically samuser)
- Database User Password
- Primary Database Proxy Port (typically 9002)

Figure 3-183 Primary Database Configuration

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window with the 'Primary Database Configuration' tab selected. On the left is a navigation pane with the following items: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (selected), and Install Complete. The main area contains a text box with instructions: 'If NAT (network address translation) is to be used, enter the primary 5620 SAM database's public IP address, as known to the 5620 SAM server.' Below this are six input fields: 'Primary Database Server IP Address' (empty), 'Primary Database Server Port' (1523), 'Primary Database Instance Name' (samdb1), 'Database User Name' (samuser), 'Database User Password' (masked with asterisks), and 'Primary Database Proxy Port' (9002). At the bottom, there is a 'Cancel' button, a 'Previous' button, and a 'Next' button. The footer text reads 'InstallAnywhere by Macrovision'.

153 Configure the following database backup parameters shown in Figure 3-184, then click on the Next button:

- Online Database Backup Interval (hours) (typically 24)
- Online Backup Destination (typically /opt/5620sam/dbbackup)
- Number Of Backup Sets (typically 3)



**Note** — The Online Backup Destination is a path on the file system of the database station specified in step 152.

Figure 3-184 Online Database Backup

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window with the 'Online Database Backup' tab selected. On the left is a navigation pane with the following items: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration, and Install Complete (which is highlighted with a black square). The main area contains a text box stating: 'The database backup directory resides on the database workstation. Please ensure that the specified directory exists on the database workstation and it is writable.' Below this are three input fields: 'Online Backup Interval (Hours)' with the value '24', 'Online Backup Destination' with the value '/opt/5620sam/dbbackup', and 'Number Of Backup Sets' with the value '3'. At the bottom left is the text 'InstallAnywhere by Macrovision' and a 'Cancel' button. At the bottom right are 'Previous' and 'Next' buttons.

154 Configure the following parameters shown in Figure 3-185 using the recorded values from the standby database installation, then click on the Next button:

- Database Server IP Address
- Database Instance Name (typically samdb2)
- Database Proxy Port (typically 9002)
- Enable Database Backup File Synchronization

Figure 3-185 Standby Database Configuration

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window with the 'Standby Database Configuration' tab selected. On the left, a navigation pane lists the installation steps: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (selected), and Install Complete. The main area contains a text box with instructions about NAT, followed by input fields for 'Database Server IP Address' (highlighted in yellow), 'Database Instance Name' (containing 'samdb2'), and 'Database Proxy Port' (containing '9002'). There is an unchecked checkbox for 'Enable Database Backup File Synchronization'. At the bottom, there are 'Cancel', 'Previous', and 'Next' buttons. The footer text reads 'InstallAnywhere by Macrovision'.

- 155 The panel in Figure 3-186 is displayed if you select “Auxiliary Server Supported” in step 151. Otherwise, go to step 157.

Perform the following steps to specify an auxiliary server, if required.

- i Configure the following parameters shown in Figure 3-186:
  - NAT (network address translation) Used  
Select this parameter only if NAT is to be used between the 5620 SAM main and auxiliary servers.
  - Private IP (accessible only by this server)
  - Public IP (accessible to auxiliary)
  - Server Port (typically 12800)
  - Enable Stats Collection on Auxiliary Servers
  - Enable Call Trace Collection on Auxiliary Servers



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 3-186.

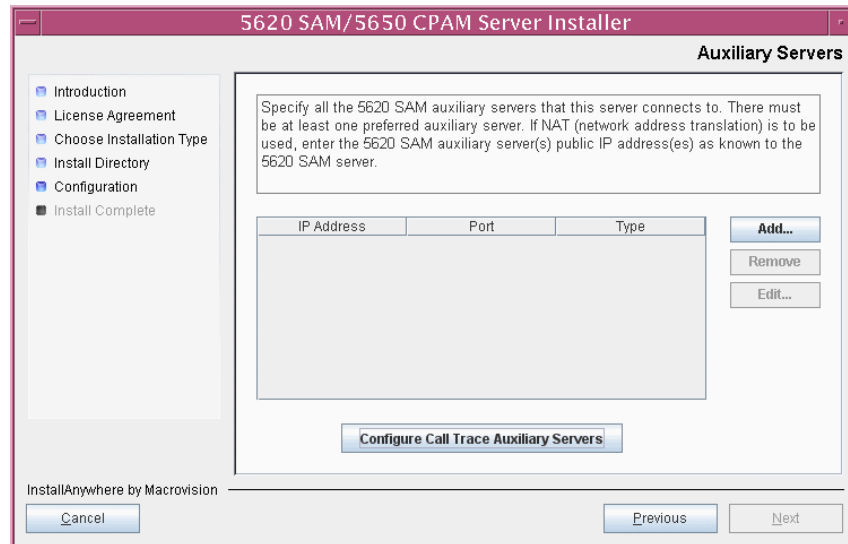
Figure 3-186 Main Server Configuration for Auxiliary Servers

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window. The title bar is purple. The main window has a purple header with the text 'Main Server Configuration for Auxiliary Servers'. On the left is a navigation pane with a tree view containing: Introduction (selected), License Agreement, Choose Installation Type, Install Directory, Configuration, and Install Complete. The main area contains a text box with instructions: 'Enter the the network interface information that this 5620 SAM main server requires to communicate with the 5620 SAM auxiliary servers. At least one service type checkbox must be selected.' Below this are several configuration options: a checked checkbox for 'NAT (network address translation) Used', a 'Private IP (accessible only by this server)' dropdown menu showing '192.168.200.111', a 'Public IP (accessible to auxiliary)' text field with a yellow background, a 'Server Port' text field with '12800', an unchecked checkbox for 'Enable Stats Collection on Auxiliary Servers', and a checked checkbox for 'Enable Call Trace Collection on Auxiliary Servers'. At the bottom left is the text 'InstallAnywhere by Macrovision' and a 'Cancel' button. At the bottom right are 'Previous' and 'Next' buttons.

- ii Click on the Next button.

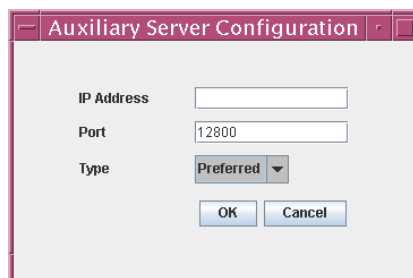
- iii Click on the Add button shown in Figure 3-187 to specify an auxiliary server. The form shown in Figure 3-188 opens.

Figure 3-187 Auxiliary Servers



**Note —** To minimize network latency between this main server and the Preferred auxiliary server that you specify in this step, specify an auxiliary server in the local network rather than an auxiliary server that is geographically remote.

Figure 3-188 Auxiliary Server Configuration



- iv Configure the following parameters shown in Figure 3-188:
- IP Address
  - Port (typically 12800)
  - Type (Preferred or Reserved)
- v Click on the OK button to save the information and close the form.
- vi Repeat steps 155 iii to v to specify an additional auxiliary server, if required.
- vii If “Enable Call Trace Collection on Auxiliary Servers” is selected in step 155 i, click on the “Configure Call Trace Auxiliary Servers” button shown in Figure 3-187. Otherwise, go to step 156.

- viii The form shown in Figure 3-189 opens. Select a preferred auxiliary server in the upper left panel and the associated reserved auxiliary server in the lower left panel, and click on the “Make Pair from Selected” button. The auxiliary servers move to the list on the right side of the form.

Figure 3-189 Configure Call Trace Auxiliary Servers

Select one preferred server and one reserved server from the left side. Add those servers to the right side using the 'Make Pair from Selected' button.

| Preferred Auxiliary Servers |       |
|-----------------------------|-------|
| IP Address                  | Port  |
| 10.1.1.1                    | 12800 |
| 10.1.1.2                    | 12800 |
| 10.1.1.3                    | 12800 |

| Reserved Auxiliary Servers |       |
|----------------------------|-------|
| IP Address                 | Port  |
| 10.2.2.1                   | 12800 |
| 10.2.2.2                   | 12801 |
| 10.2.2.3                   | 12800 |

| Server Pairs        |                    |
|---------------------|--------------------|
| Preferred Server IP | Reserved Server IP |

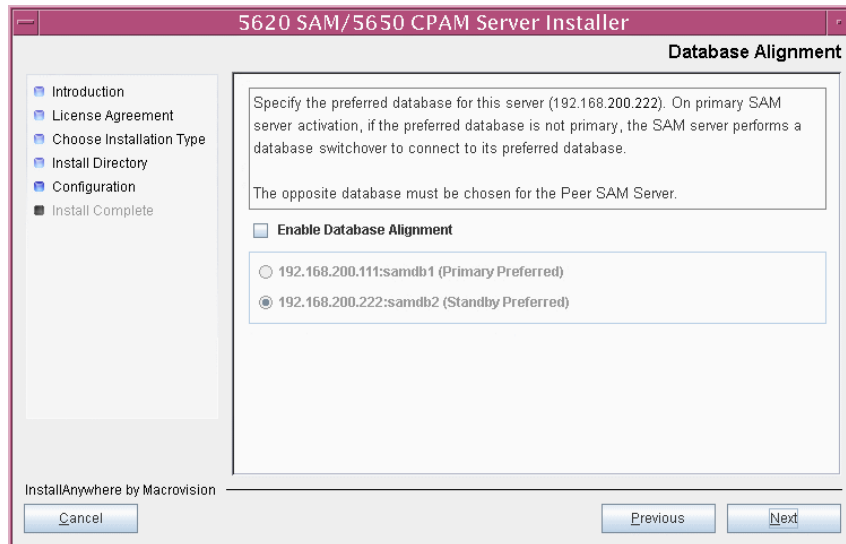
Make Pair from Selected      Remove Selected Pair      OK      Cancel

- ix Repeat step 155 viii to configure another call-trace auxiliary server pair, if required.

156 Click on the Next button.

- 157 If you select the Enable Database Alignment parameter shown in Figure 3-190, you must specify the preferred database of this main server. Click on the Next button.

Figure 3-190 Database Alignment



158 Perform the following steps.

- i Configure the following parameters shown in Figure 3-191:
  - Server Domain Name (typically 5620sam)  
This is a value that uniquely identifies the 5620 SAM server cluster.
  - Use Hostname for Communication  
Select this parameter if the main server is to use multiple interfaces for GUI and OSS client communication.

Figure 3-191 Main Server Configuration for Clients

**5620 SAM/5650 CPAM Server Installer**

**Main Server Configuration for Clients**

Enter the network interface information that the GUI and OSS clients require to communicate with this 5620 SAM main server.

If multiple addresses are to be used for communication with GUI clients, OSS clients, and auxiliary servers, a hostname must be provided for the Public Hostname field.

Server Domain Name

☐ Use Hostname for Communication (recommended if NAT is used)

☒ NAT (network address translation) Used

Private IP (accessible only by this server)

Public IP (accessible to clients)

EJB JNDI Server port

EJB JMS Server port

☐ Enable 5670 RAM

☐ Enable 3GPP OSS Interface

InstallAnywhere by Macrovision

- ii If you select Use Hostname for Communication, go to step 158 vi.
- iii Configure the following parameters:
  - NAT (network address translation) Used
  - Private IP (accessible only by this server)
  - Public IP (accessible to clients)
  - EJB JNDI Server port (typically 1099)
  - EJB JMS Server port (typically 8093)
  - Enable 5670 RAM
  - Enable 3GPP OSS Interface



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 3-191.

- iv Click on the Next button.



- v Go to step 160.
- vi Configure the following parameters shown in Figure 3-192:
  - NAT (network address translation) Used
  - Private IP (accessible only by this server)
  - Public Hostname
  - EJB JNDI Server port (typically 1099)
  - EJB JMS Server port (typically 8093)
  - Enable 5670 RAM
  - Enable 3GPP OSS Interface



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 3-192.

Figure 3-192 Main Server Configuration for Clients

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window. The title bar is purple. The main window has a sidebar on the left with a tree view containing: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (selected), and Install Complete. The main area is titled 'Main Server Configuration for Clients'. It contains the following fields and options:

- Text box: 'Enter the network interface information that the GUI and OSS clients require to communicate with this 5620 SAM main server. If multiple addresses are to be used for communication with GUI clients, OSS clients, and auxiliary servers, a hostname must be provided for the Public Hostname field.'
- Text box: 'Server Domain Name' with value '5620sam'.
- Checkboxes: 'Use Hostname for Communication (recommended if NAT is used)' and 'NAT (network address translation) Used' (checked).
- Text box: 'Private IP (accessible only by this server)' with value '192.168.200.222' and a dropdown arrow.
- Text box: 'Public Hostname'.
- Text box: 'EJB JNDI Server port' with value '1099'.
- Text box: 'EJB JMS Server port' with value '8093'.
- Checkboxes: 'Enable 5670 RAM' and 'Enable 3GPP OSS Interface'.

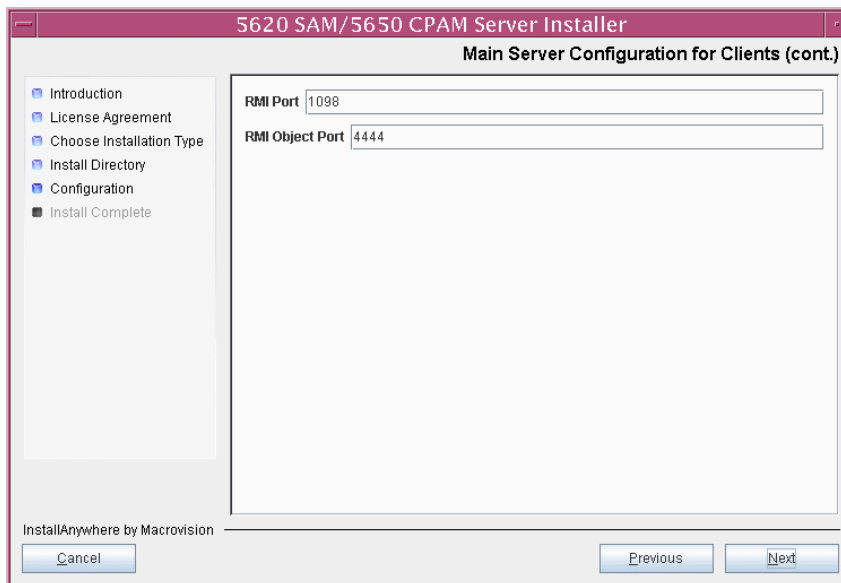
At the bottom, it says 'InstallAnywhere by Macrovision'. There are 'Cancel', 'Previous', and 'Next' buttons.

- vii Click on the Next button.

159 Configure the following parameters shown in Figure 3-193, then click on the Next button:

- RMI Port (typically 1098)
- RMI Object Port (typically 4444)

Figure 3-193 Main Server Configuration for Clients (cont.)



160 Configure the following parameters shown in Figure 3-194:

- NAT (network address translation) Used  
Select this parameter only if NAT is to be used between this 5620 SAM server and the peer 5620 SAM server.
- Private IP (accessible only by this server)
- Public IP (accessible to peer server)
- High Available JNDI Port (typically 1100)
- TCP Port Cluster Number (typically 11800)



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 3-194.

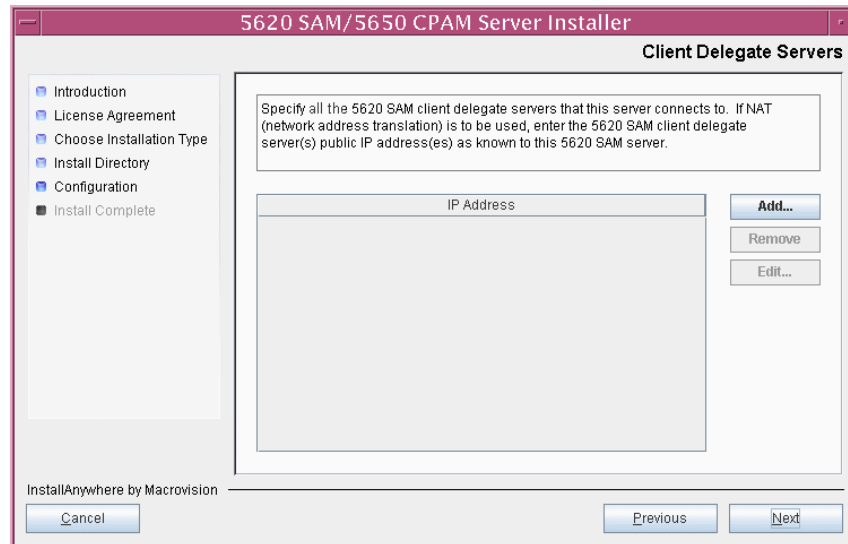
Figure 3-194 Main Server Configuration for Peer Server

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window. The title bar is purple with the text '5620 SAM/5650 CPAM Server Installer'. The main window has a purple header bar with the text 'Main Server Configuration for Peer Server'. On the left side, there is a vertical list of steps: 'Introduction', 'License Agreement', 'Choose Installation Type', 'Install Directory', 'Configuration', and 'Install Complete'. The 'Configuration' step is currently selected. The main area of the window contains a text box with the instruction: 'Enter the network interface information that this 5620 SAM main server requires to communicate with the peer server.' Below this, there are several configuration options: a checkbox labeled 'NAT (network address translation) Used' which is checked; a dropdown menu for 'Private IP (accessible only by this server)' showing the value '192.168.200.111'; a text box for 'Public IP (accessible to peer server)' which is highlighted in yellow; a text box for 'High Available JNDI Port' with the value '1100'; and a text box for 'TCP Port Cluster Number' with the value '11800'. At the bottom of the window, there is a footer that says 'InstallAnywhere by Macrovision' and three buttons: 'Cancel', 'Previous', and 'Next'.

- 161 The panel in Figure 3-195 is displayed if you select “Client Delegate Server Supported” in step 151. Otherwise, go to step 162.

Click on the Add button to specify the client delegate server IP addresses, as required. If NAT is used between the 5620 SAM server and client delegate servers, specify the public IP address. Click on the Next button.

Figure 3-195 Client Delegate Servers



162 Perform one of the following to specify where the 5620 SAM user documentation is to be stored.

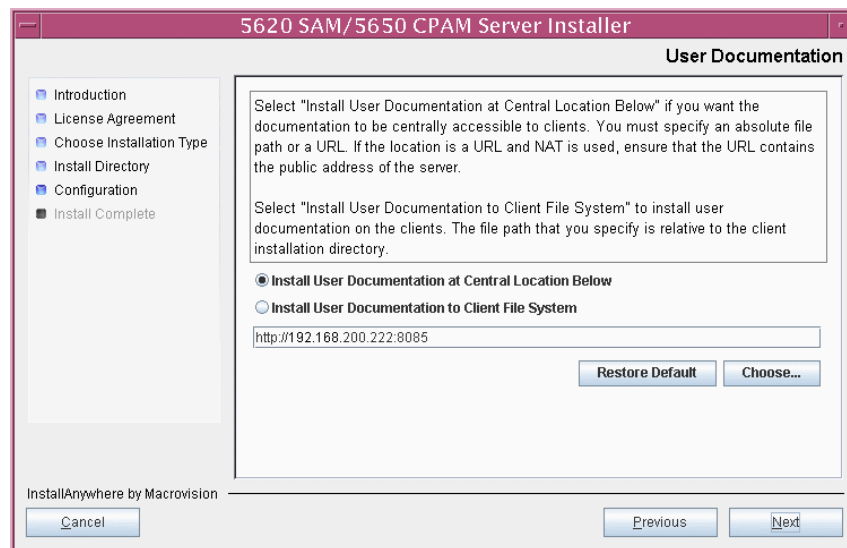
- a To store the documentation in a central location that is available to all clients, perform the following steps.
  - i Select the “Install User Documentation at Central Location Below” parameter, as shown in Figure 3-196.
  - ii To accept the default user documentation location that is displayed, go to step 163.



**Note —** If NAT is to be used between the 5620 SAM server and clients, you must update the default location using the public IP address of the server, or the documentation is not accessible to clients.

- iii Specify a location for the 5620 SAM user documentation in the field below the parameters.
- iv Copy the contents of the User\_Documentation directory on the 5620 SAM software DVD-ROM to the location specified in step iii.
- v Click on the Next button. A dialog box appears.
- vi Click on the OK button.

Figure 3-196 User Documentation



- b To store a copy of the documentation on the client file system, perform the following steps.
  - i Select the “Install User Documentation to Client File System” parameter shown in Figure 3-196.
  - ii Specify a file path relative to the 5620 SAM client installation directory. The path must not contain a leading slash.

For example, if the installation directory is /opt/5620sam/client and you specify Documents as the location, the documentation is installed in the following directory:

/opt/5620sam/client/Documents

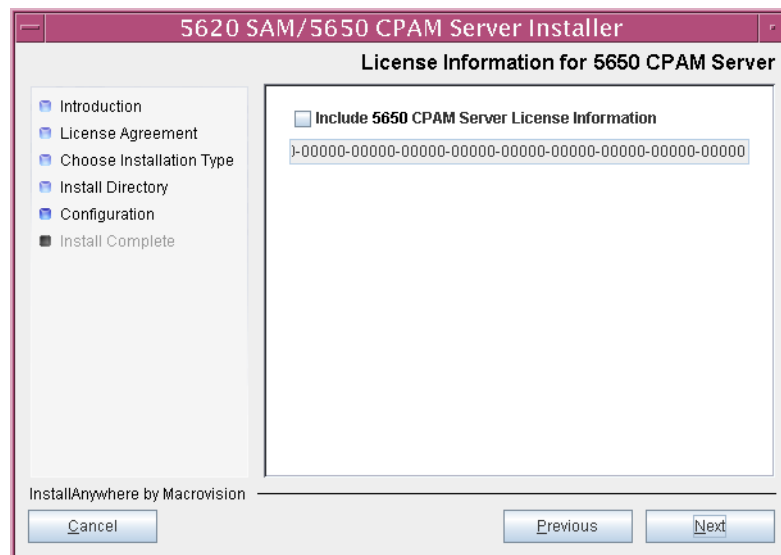


**Note** — The 5620 SAM client uninstaller cannot remove the documentation unless it is installed below the nms directory in the 5620 SAM client installation directory, for example, /opt/5620sam/client/nms/Documents.

163 Click on the Next button.

164 Specify whether the 5620 SAM configuration includes a 5650 CPAM server, as shown in Figure 3-197. If it does, enter the 5650 CPAM license key provided by Alcatel-Lucent. Include the dashes in the key. Click on the Next button.

Figure 3-197 License Information for 5650 CPAM Server



165 Configure the following parameters shown in Figure 3-198, then click on the Next button:

- NAT (network address translation) Used  
Select this parameter only if NAT is to be used between the 5620 SAM main server and the managed network.
- SNMP Trap Receiving IPv4 Address
- SNMP Trap Receiving IPv6 Address
- SNMP Trap Receiving Port (typically 162)
- Trap Log Id (typically 98)

Figure 3-198 SNMP Configuration

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window with the 'SNMP Configuration' tab selected. On the left is a navigation pane with links: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration, and Install Complete. The main area contains a text box with instructions: 'If NAT (network address translation) is to be used, enter the 5620 SAM main server's public IP address as known to the devices within the managed network.' Below this are two unchecked checkboxes: 'NAT (network address translation) Used' and 'IPv6 Address Used'. There are four input fields: 'SNMP Trap Receiving IPv4 Address' with a dropdown menu showing '192.168.200.133', 'SNMP Trap Receiving IPv6 Address' (empty), 'SNMP Trap Receiving Port' with the value '162', and 'Trap Log Id' with the value '98'. At the bottom left is the text 'InstallAnywhere by Macrovision' and a 'Cancel' button. At the bottom right are 'Previous' and 'Next' buttons.

166 Configure the following parameters shown in Figure 3-199, then click on the Next button:

- Peer Server IP Address
- Peer Server Trap Log Id (typically 98)
- Peer Server SNMP Trap Receiving IPv4 Address
- Peer Server SNMP Trap Receiving IPv6 Address
- Peer Server SNMP Trap Receiving Port (typically 162)
- Peer Server TCP Port Cluster Number (typically 11800)

Figure 3-199 Peer Main Server Configurations

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window. The title bar is purple with the text '5620 SAM/5650 CPAM Server Installer'. The main window has a purple header bar with the text 'Peer Main Server Configurations'. On the left side, there is a vertical list of steps: 'Introduction', 'License Agreement', 'Choose Installation Type', 'Install Directory', 'Configuration' (which is highlighted with a blue square), and 'Install Complete' (which is preceded by a small black square). The main area of the window contains a text box with the following text: 'If NAT (network address translation) is to be used, enter the 5620 SAM peer server's public IP address as known to the 5620 SAM server. Also enter the 5620 SAM peer server's public IP address as known to the devices within the managed network.' Below this text box are six input fields: 'Peer Server IP Address' (empty), 'Peer Server Trap Log Id' (containing '98'), 'Peer Server SNMP Trap Receiving IPv4 Address' (empty), 'Peer Server SNMP Trap Receiving IPv6 Address' (empty), 'Peer Server SNMP Trap Receiving Port' (containing '162'), and 'Peer Server TCP Port Cluster Number' (containing '11800'). At the bottom left, there is a small text 'InstallAnywhere by Macrovision' and a 'Cancel' button. At the bottom right, there are 'Previous' and 'Next' buttons.

167 If you selected the Use Hostname for Communication parameter in step 158, go to step 169.



168 Configure the following parameters shown in Figure 3-200, then click on the Next button:

- 5620 SAM Peer Server IP Address
- 5620 SAM JNDI High Available Peer Server Port (typically 1100)
- 5620 SAM JNDI Peer Server Port (typically 1099)

Figure 3-200 Peer Main Server Configurations (cont.)

**5620 SAM/5650 CPAM Server Installer**

**Peer Main Server Configurations (cont.)**

Enter the IP address of the network interface the GUI and OSS clients require to communicate with the peer server. If NAT (network address translation) is to be used, specify the public IP address as known to the 5620 SAM clients.

If multiple addresses are to be used for communication with GUI clients, OSS clients, and auxiliary servers, a hostname must be provided for the 5620 SAM Peer Server Hostname field.

5620 SAM Peer Server IP Address

5620 SAM JNDI High Available Peer Server Port

5620 SAM JNDI Peer Server Port

InstallAnywhere by Macrovision

169 Configure the following parameters shown in Figure 3-201, then click on the Next button:

- 5620 SAM Peer Server Hostname
- 5620 SAM JNDI High Available Peer Server Port (typically 1100)
- 5620 SAM JNDI Peer Server Port (typically 1099)

Figure 3-201 Peer Main Server Configurations (cont.)

**5620 SAM/5650 CPAM Server Installer**

**Peer Main Server Configurations (cont.)**

Enter the IP address of the network interface the GUI and OSS clients require to communicate with the peer server. If NAT (network address translation) is to be used, specify the public IP address as known to the 5620 SAM clients.

If multiple addresses are to be used for communication with GUI clients, OSS clients, and auxiliary servers, a hostname must be provided for the 5620 SAM Peer Server Hostname field.

5620 SAM Peer Server Hostname

5620 SAM JNDI High Available Peer Server Port

5620 SAM JNDI Peer Server Port

InstallAnywhere by Macrovision

170 If you require 5620 SAM client navigation from a 5620 NM system, select the “Enable Navigation from External Systems” parameter shown in Figure 3-202 and specify the TCP port that the client is to use for accepting navigation requests. Click on the Next button.

Figure 3-202 Navigation from External Systems

**5620 SAM/5650 CPAM Server Installer**

**Navigation from External Systems**

Select this option to enable GUI navigation from a 5620 NM system.

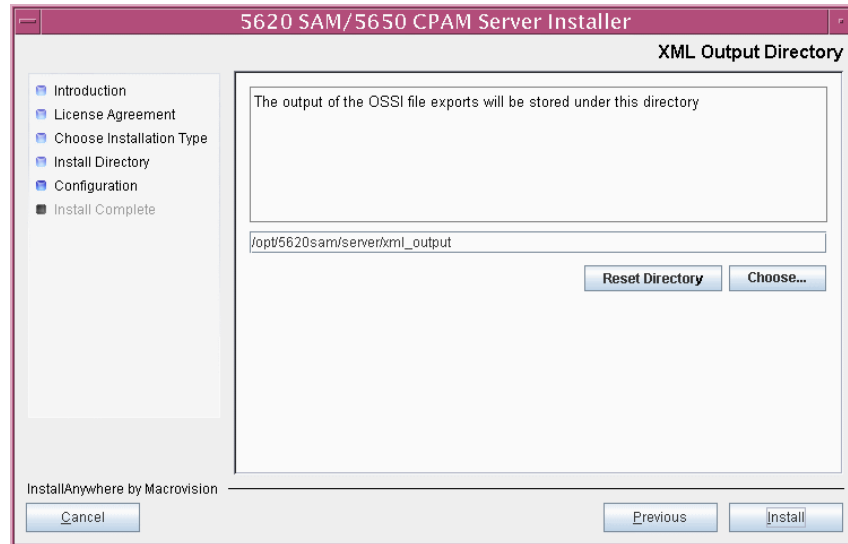
☒ **Enable Navigation from External Systems**

TCP port for accepting GUI navigation requests

InstallAnywhere by Macrovision

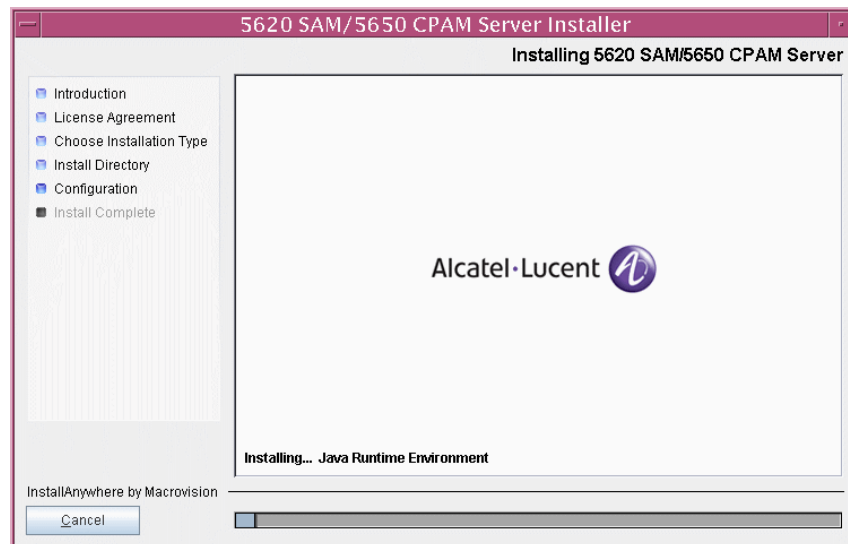
- 171 Specify an OSS XML output location (typically /opt/5620sam/server/xml\_output), as shown in Figure 3-203. Click on the Install button to begin the server installation.

Figure 3-203 XML Output Directory



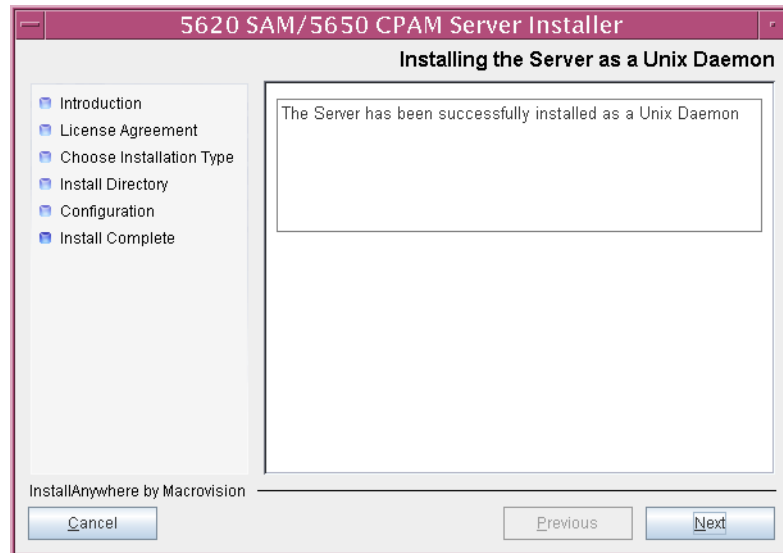
The next panel displays installation progress, as shown in Figure 3-204.

Figure 3-204 Installing 5620 SAM/5650 CPAM Server



- 172 As shown in Figure 3-205, the 5620 SAM server is installed as a UNIX daemon. Click on the Next button.

Figure 3-205 Installing the Server as a Unix Daemon

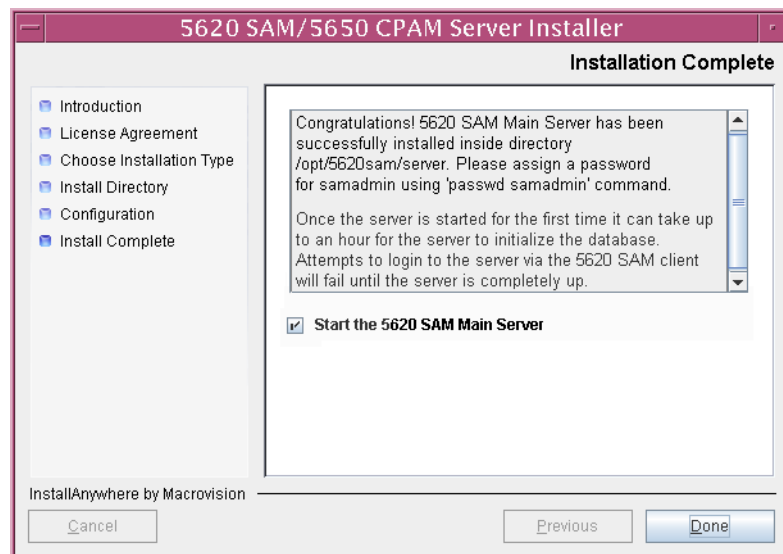


- 173 When the server installation is complete, as shown in Figure 3-206, configure the “Start the 5620 SAM Main Server” parameter to specify whether you want the server to start immediately after the installation..



**Caution** — If the 3GPP OSS interface is enabled in step 158, ensure that the “Start the 5620 SAM Main Server” parameter is not selected.

Figure 3-206 Installation Complete



- 174 View the panel text to see whether it states that you must assign a password to samadmin, as shown in Figure 3-206. This information is required in step 176.
- 175 Click on the Done button to close the server installer. If you specified that the server is to start after installation, the server starts. Initial server startup can take twenty minutes or more.
- 176 If this is the first 5620 SAM server installation on the station, the installer creates a user account called samadmin for 5620 SAM system administration.

If you must assign a password to samadmin, as determined in step 174, perform the following steps.

- i Enter the following at the CLI prompt:

```
passwd samadmin
```

The following prompt is displayed:

```
New Password:
```

- ii Enter the new password and press ↵.

The following prompt is displayed:

```
Confirm New Password:
```

- iii Enter the new password again and press ↵. The password is changed.

- iv Record the new password and store it in a secure location.

- 177 If the 3GPP OSS interface is enabled in step 158, perform the following steps.

- i Open the *path*/nms/cnbi/home/config/cnbi.properties file using a plain-text editor

where *path* is the 5620 SAM main server installation location, typically *opt/5620sam/server*

- ii Locate the following line:

```
CNBI.SAMO.USER=
```

- iii Edit the line to read:

```
CNBI.SAMO.USER=3GPP_OSS_user_name
```

where *3GPP\_OSS\_user\_name* is the user name that OSS applications must send in requests to the interface

- iv Locate the following line:

```
CNBI.SAMO.PASSWORD=
```

- v Edit the line to read:

```
CNBI.SAMO.PASSWORD=3GPP_OSS_password
```

where *3GPP\_OSS\_password* is the MD5-encrypted user password that OSS applications must send in requests to the interface



**Note —** The user name and password must be the same user name and password specified during the primary server configuration in step 129.

**178** If you specified that the server is to start immediately after installation, perform the following steps to verify that the 5620 SAM server is started.

- i Enter the following at the CLI prompt to switch to the samadmin user:

```
su - samadmin ↵
```

- ii Enter the following at the CLI prompt:

```
bash$ path/nms/bin/nmsserver.bash -s nms_status ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

The command returns server status information.

If the main server is not completely started, the first line of status information is the following:

```
Main Server is not ready...
```

The 5620 SAM server is completely started when the command returns the following line of output:

```
-- Standby Server is UP
```

- iii If the command output indicates that the server is not completely started, wait five minutes and enter the command again to check the output.

**179** If you specified not to start the server immediately after the installation, perform the following steps to start the 5620 SAM main server manually.

- i Log in to the main server station as the samadmin user.
- ii Enter the following at the CLI prompt to change to the server binary directory:

```
bash$ cd path/nms/bin ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

- iii Enter the following at the CLI prompt to start the 5620 SAM server software:

```
bash$./nmsserver.bash start ↵
```

- iv Enter the following at the CLI prompt:

```
bash$ path/nms/bin/nmsserver.bash -s nms_status ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

The command returns server status information.

If the main server is not completely started, the first line of status information is the following:

```
Main Server is not ready...
```

The 5620 SAM server is completely started when the command returns the following line of output:

```
-- Standby Server is UP
```

- v If the command output indicates that the server is not completely started, wait five minutes and enter the command again to check the output.

180 Close the console window.

#### Install additional client

181 Perform one of the following to install an additional 5620 SAM client, if required.

- a Perform Procedure 2-3 or 2-4 to install a single-user client on Windows.
  - b Perform Procedure 3-3 or 3-3 to install a single-user client on Solaris.
  - c Perform Procedure 3-4 to install a client delegate server.
- 

## 3.7 5620 SAM auxiliary server installation procedures

This section describes how to install a 5620 SAM auxiliary server component for a standalone or redundant 5620 SAM system.

Procedure 3-7 describes how to install the 5620 SAM auxiliary server software. Procedure 3-8 describes how to add a new 5620 SAM auxiliary server to an existing 5620 SAM system.



**Note** — Command-line examples use the following to represent the Solaris CLI prompts:

- #—represents the prompt for a root or root-equivalent user
- bash\$—represents the prompt for the samadmin and Oracle management users

Do not type the # symbol or bash\$ when entering a command.

### Procedure 3-7 To install a 5620 SAM auxiliary server

---

Perform this procedure to install the 5620 SAM auxiliary server software on a Solaris station. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



**Note 1** — You require root-equivalent user privileges on the auxiliary server station to perform this procedure.

**Note 2** — The installer creates the samadmin user account on the auxiliary server station during this procedure.

- 1 Log in to the station that is to be the auxiliary server station as a user with root or root-equivalent privileges.
- 2 Open a console window.
- 3 Place the 5620 SAM software DVD-ROM in a DVD-ROM drive.
- 4 Navigate to the DVD-ROM drive.
- 5 Perform one of the following to open the 5620 SAM server installer.
  - a On a Sun SPARC station:
    - i Enter the following at the CLI prompt:  

```
cd Solaris ↵
```
    - ii Enter the following at the CLI prompt:  

```
./ServerInstall_SAM_8_0_revision.bin ↵
```

where  
*revision* is the revision identifier, such as R1, R3, or another descriptor
  - b On a Sun X86-based station:
    - i Enter the following at the CLI prompt:  

```
cd Solarisx86 ↵
```
    - ii Enter the following at the CLI prompt:  

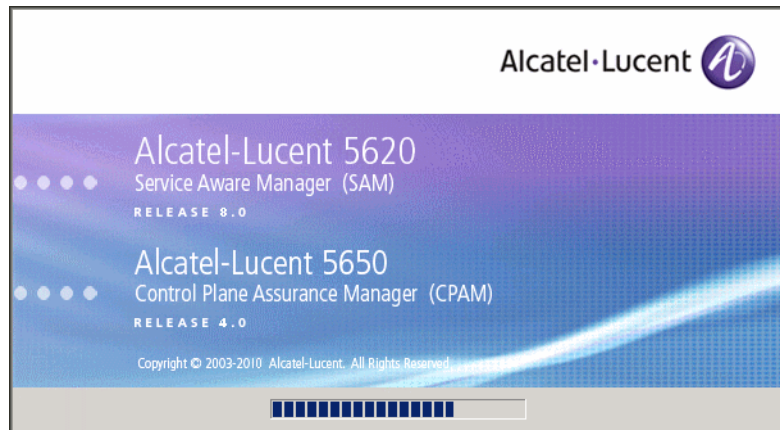
```
./ServerInstall_x86_SAM_8_0_revision.bin ↵
```

where  
*revision* is the revision identifier, such as R1, R3, or another descriptor



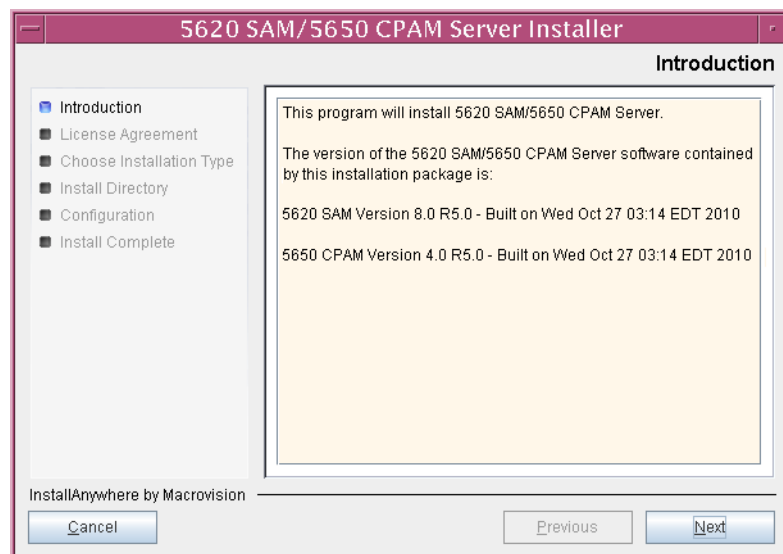
The splash screen shown in Figure 3-207 opens.

Figure 3-207 5620 SAM installer



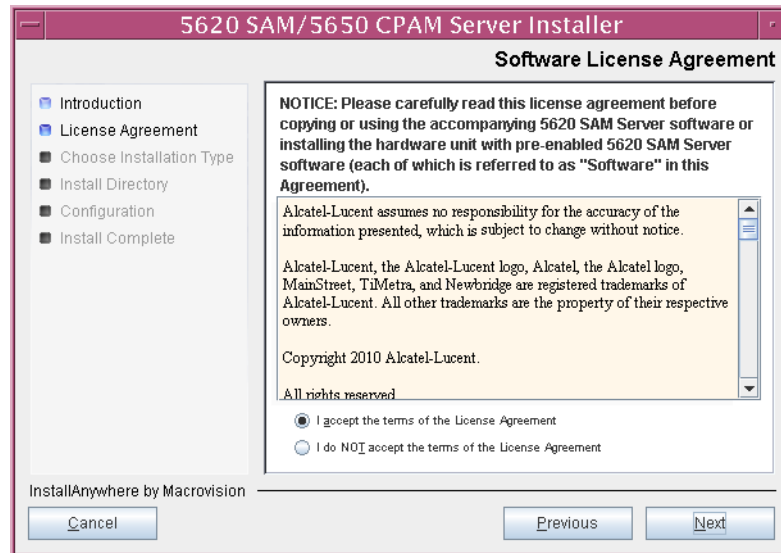
- 6 The 5620 SAM server installer opens, as shown in Figure 3-208. The left pane indicates installation progress. The right pane displays release information about the software. Click on the Next button.

Figure 3-208 Introduction



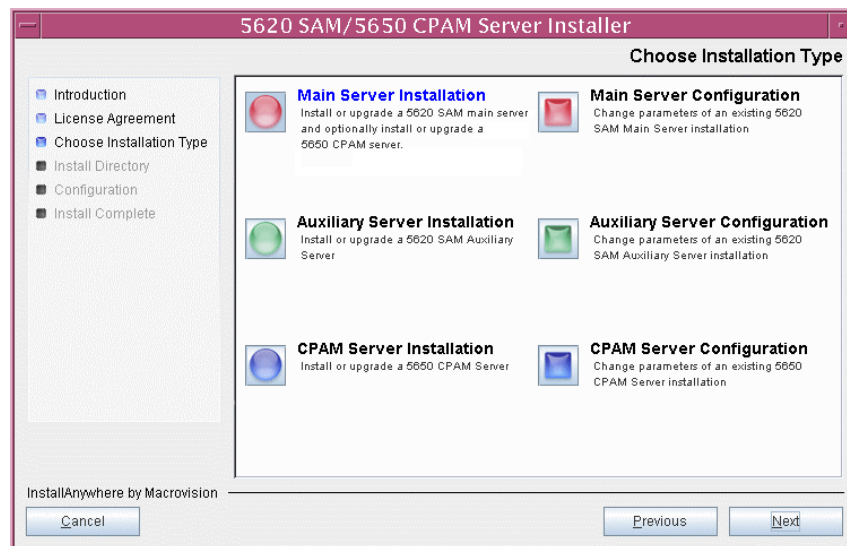
- 7 Review and accept the terms of the license agreement shown in Figure 3-209. Click on the Next button.

Figure 3-209 Software License Agreement



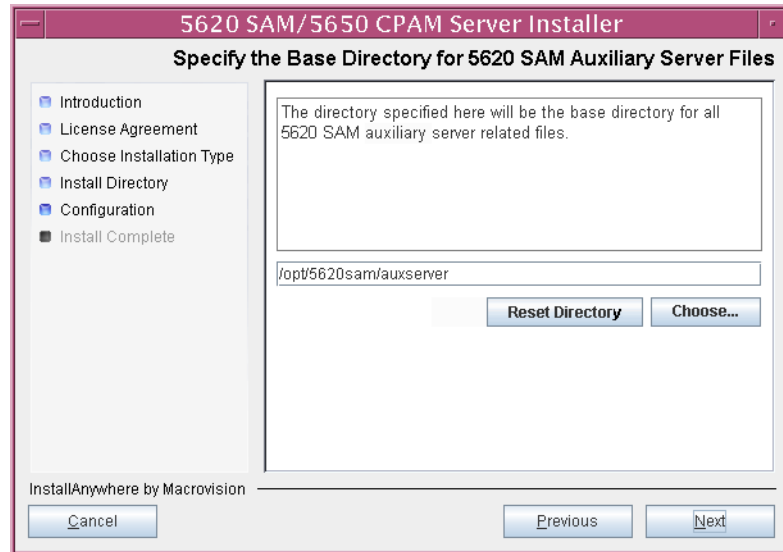
- 8 Select Auxiliary Server Installation, as shown in Figure 3-210. Click on the Next button.

Figure 3-210 Choose Installation Type



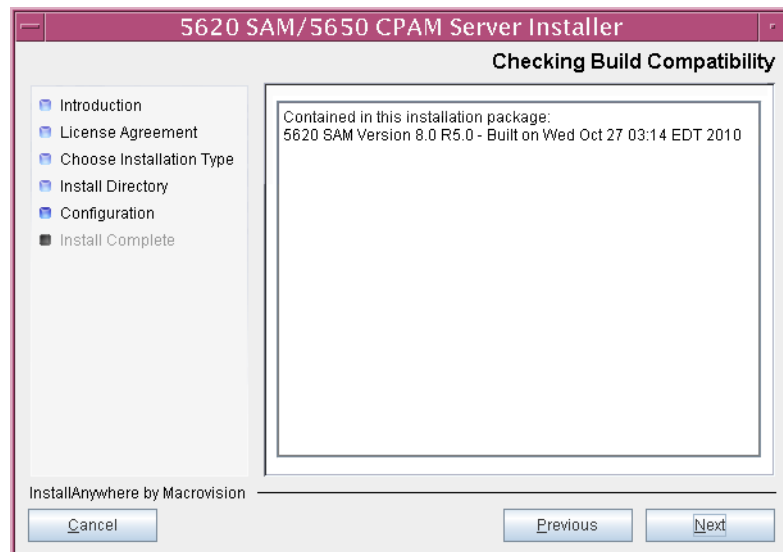
- 9 Specify a base directory in which to install the 5620 SAM auxiliary server software (typically /opt/5620sam/auxserver), as shown in Figure 3-211. Click on the Next button.

Figure 3-211 Specify the Base Directory for 5620 SAM Auxiliary Server Files



- 10 As shown in Figure 3-212, the installer indicates which release of 5620 SAM software is to be installed. Verify the information. Click on the Next button.

Figure 3-212 Checking Build Compatibility



## 11 Configure the parameters shown in Figure 3-213:

- **Server Domain Name** (typically 5620sam)  
This is the unique identifier of the 5620 SAM server cluster.
- **NAT (network address translation) Used**  
Select this parameter only if NAT is to be used between the 5620 SAM auxiliary server and the main servers.
- **Private IP (accessible only by this server)**  
You must configure this parameter if you select the NAT (network address translation) Used parameter.
- **Public IP (accessible to servers)**
- **Server Port** (typically 12800)
- **Redundancy Supported On the 5620 SAM Main Server**  
Select this parameter only if the 5620 SAM main servers are deployed in a redundant configuration.
- **Enable Stats Service**  
Select this parameter if the 5620 SAM auxiliary server is to be used for statistics collection.
- **Enable Call Trace Service**  
Select this parameter if the 5620 SAM auxiliary server is to be used for call trace.



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 3-213.

Figure 3-213 Auxiliary Server Address Configuration

5620 SAM/5650 CPAM Server Installer

**Auxiliary Server Address Configuration**

Enter the network interface information for the 5620 SAM auxiliary server. The domain name must be the same as the 5620 SAM main server's domain name.

Server Domain Name: 5620sam

☒ NAT (network address translation) Used

Private IP (accessible only by this server): 192.168.200.234

Public IP (accessible to servers):

Server Port: 12800

☐ Redundancy Supported On the 5620 SAM Main Server

☐ Enable Stats Service

☒ Enable Call Trace Service

InstallAnywhere by Macrovision

Cancel Previous Install

- 12 If you select “Enable Stats Service” in step 11, go to step 15.
- 13 The panel shown in Figure 3-214 is displayed if you select “Enable Call Trace Service” in step 11. Configure the following parameters, then click on the Next button to continue:
  - IPv6 Address Used
  - Call Trace Receiving IPv4 Address
  - Call Trace Receiving IPv6 Address
  - Call Trace Receiving Directory (typically /opt/5620sam/calltrace)
  - Debug Trace Receiving Directory (typically /opt/5620sam/debugtrace)



**Note 1** — The Call Trace Receiving IPv6 Address parameter is displayed only when the IPv6 Address Used parameter is selected, as shown in Figure 3-214.

**Note 2** — If NAT is to be used, each specified IP address must be a public IP address.

Figure 3-214 Auxiliary Server Call Trace Configuration

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window. The title bar is '5620 SAM/5650 CPAM Server Installer'. The main window has a tab titled 'Auxiliary Server Call Trace Configuration'. On the left is a navigation pane with the following items: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (selected), and Install Complete. The main content area contains a text box with instructions: 'If NAT (network address translation) is to be used, enter the 5620 SAM auxiliary server's public IP address(es) as known to the devices within the managed network. The chosen local directories will be used to store call trace and debug trace data collected from the eNodeBs in the managed network.' Below this are several configuration fields:
 

- A checked checkbox labeled 'IPv6 Address Used'.
- 'Call Trace Receiving IPv4 Address' with a dropdown menu showing '192.168.200.234'.
- 'Call Trace Receiving IPv6 Address' with an empty text field.
- 'Call Trace Receiving Directory' with a text field containing '/opt/5620sam/calltrace' and buttons for 'Reset Directory' and 'Choose...'.
- 'Debug Trace Receiving Directory' with a text field containing '/opt/5620sam/debugtrace' and buttons for 'Reset Directory' and 'Choose...'.

 At the bottom left, it says 'InstallAnywhere by Macrovision' with a 'Cancel' button. At the bottom right, there are 'Previous' and 'Next' buttons.

- 14 The panel shown in Figure 3-214 is displayed if you select “Enable Call Trace Service” in step 11. Configure the following parameters, then click on the Next button to continue:

- Enable Synchronization of Call Trace Data
- Local IP Address
- Remote IP Address



**Note** — The “Local IP Address” and “Remote IP Address” parameters are configurable only when the “Enable Synchronization of Call Trace Data” parameter is enabled.

Figure 3-215 Synchronization of Call Trace Data

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window. The title bar is pink. The main window has a left sidebar with a list of steps: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration, and Install Complete. The 'Configuration' step is selected. The main area is titled 'Auxiliary Server Call Trace Configuration'. It contains a text box with instructions: 'If NAT (network address translation) is to be used, enter the 5620 SAM auxiliary servers' public IP address. If synchronization is enabled, the collected call trace data will be available on both auxiliary servers.' Below this is a checkbox labeled 'Enable Synchronization of Call Trace Data' which is checked. Underneath are two input fields: 'Local IP Address' with the value '192.168.200.234' and a dropdown arrow, and 'Remote IP Address' which is empty. At the bottom left, it says 'InstallAnywhere by Macrovision' with a 'Cancel' button. At the bottom right, there are 'Previous' and 'Next' buttons.

- 15 Perform one of the following.
  - a If the “Redundancy Supported On the 5620 SAM Main Server” parameter in step 11 is disabled, configure the parameters shown in Figure 3-216:
    - Main Server IP Address
    - Main Server Port (typically 12800)

Figure 3-216 Main Server Configuration

The screenshot shows a window titled "5620 SAM/5650 CPAM Server Installer" with a tab labeled "Main Server Configuration". On the left is a navigation pane with the following items: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (selected), and Install Complete. The main area contains a text box with the instruction: "Enter the public IP address of the network interface on the 5620 SAM Main server that this 5620 SAM auxiliary server requires." Below this are two input fields: "Server IP Address" (highlighted in yellow) and "Server Port" (containing the value "12800"). At the bottom left, it says "InstallAnywhere by Macrovision". At the bottom right are three buttons: "Cancel", "Previous", and "Next".

- b If the “Redundancy Supported On the 5620 SAM Main Server” parameter in step 11 is enabled, configure the parameters shown in Figure 3-217:
- Server One IP Address
  - Server One Port (typically 12800)
  - Server Two IP Address
  - Server Two Port (typically 12800)

Figure 3-217 Main Server Configuration

The screenshot shows the 'Main Server Configuration' window of the '5620 SAM/5650 CPAM Server Installer'. The window has a sidebar with navigation links: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (selected), and Install Complete. The main area contains a text box with instructions: 'Enter the public IP addresses of the network interfaces on the 5620 SAM main server that this 5620 SAM auxiliary server requires.' Below this are four input fields: 'Server One IP Address' (highlighted in yellow), 'Server One Port' (with '12800' entered), 'Server Two IP Address' (highlighted in yellow), and 'Server Two Port' (with '12800' entered). At the bottom, there are 'Cancel', 'Previous', and 'Next' buttons, and a footer that reads 'InstallAnywhere by Macrovision'.

- 16 Specify an OSS XML output location (typically /opt/5620sam/auxserver/xml\_output), as shown in Figure 3-218. Click on the Install button to begin the auxiliary server installation.

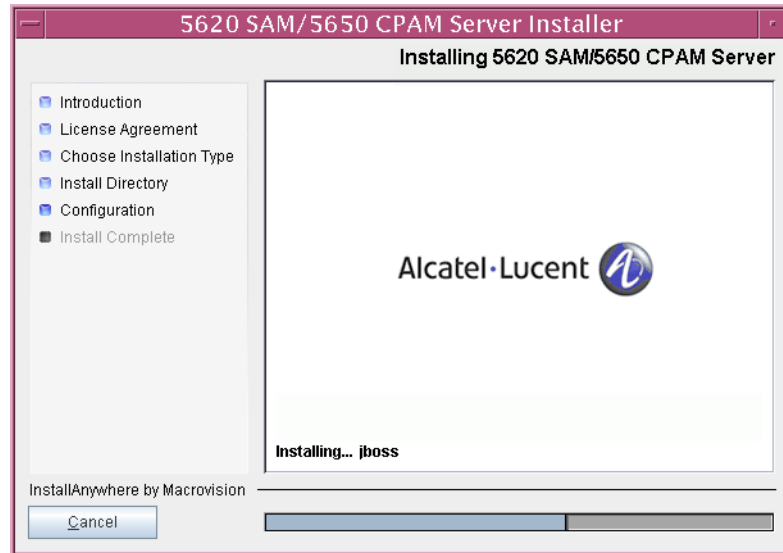
Figure 3-218 XML Output Directory

The screenshot shows the 'XML Output Directory' window of the '5620 SAM/5650 CPAM Server Installer'. The window has the same sidebar as Figure 3-217, with 'Configuration' selected. The main area contains a text box with instructions: 'The output of the OSS file exports will be stored under this directory'. Below this is a text input field containing the path '/opt/5620sam/auxserver/xml\_output'. To the right of the input field are two buttons: 'Reset Directory' and 'Choose...'. At the bottom, there are 'Cancel', 'Previous', and 'Install' buttons, and a footer that reads 'InstallAnywhere by Macrovision'.



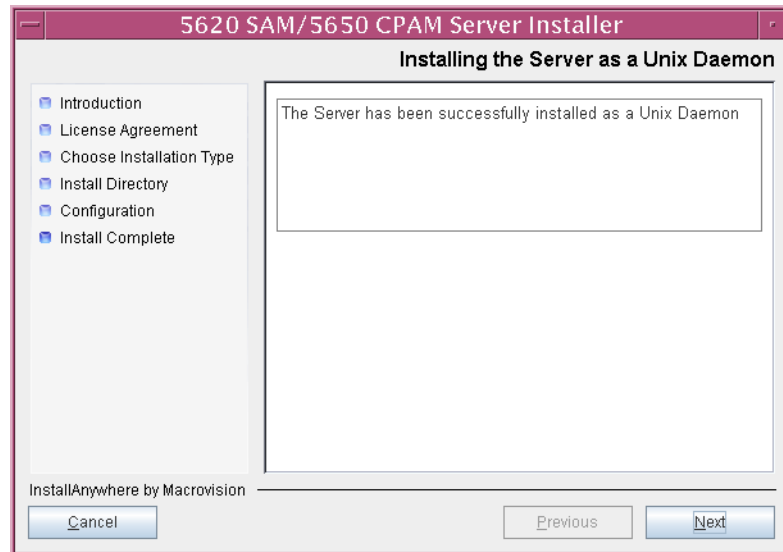
The next panel displays installation progress, as shown in Figure 3-219.

Figure 3-219 Installing 5620 SAM Server



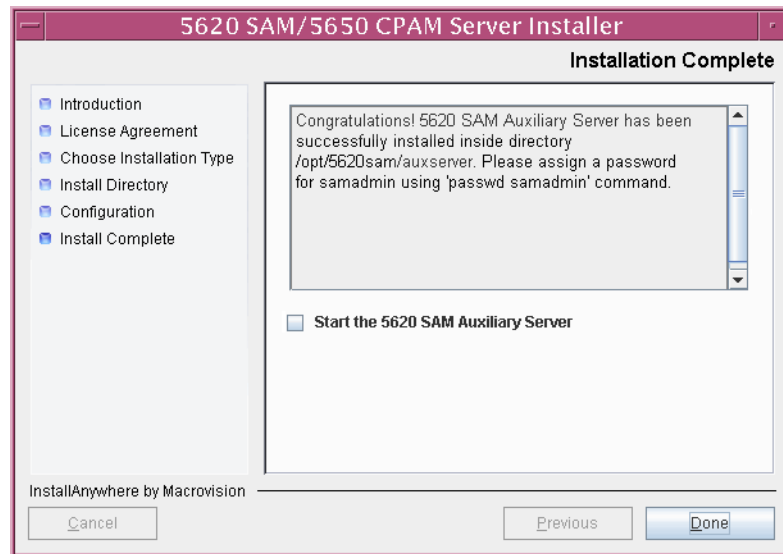
- 17 As shown in Figure 3-220, the 5620 SAM auxiliary server is installed as a UNIX daemon. Click on the Next button.

Figure 3-220 Installing the Server as a Unix Daemon



- 18 When the auxiliary server installation is complete, as shown in Figure 3-221, configure the “Start the 5620 SAM Auxiliary Server” parameter to specify whether you want the server to start immediately after the installation.

Figure 3-221 Installation Complete



- 19 View the panel text to see whether it states that you must assign a password to samadmin, as shown in Figure 3-221. This information is required in step 21.
- 20 Click on the Done button to close the server installer. If you specified that the server is to start after installation, the server starts. Initial server startup can take twenty minutes or more.
- 21 If this is the first 5620 SAM server installation on the station, the installer creates a user account called samadmin for 5620 SAM system administration.

If you must assign a password to samadmin, as determined in step 19, perform the following steps.

- i Enter the following at the CLI prompt:

```
passwd samadmin
```

The following prompt is displayed:

```
New Password:
```

- ii Enter the new password and press ↵.

The following prompt is displayed:

```
Confirm New Password:
```

- iii Enter the new password again and press ↵. The password is changed.
  - iv Record the new password and store it in a secure location.
- 22 If you specified not to start the auxiliary server immediately after the installation, you can start it later by performing the following steps.
- i Log in to the auxiliary server station as the samadmin user.
  - ii Open a console window.
  - iii Enter the following at the CLI prompt to start the 5620 SAM server software:

```
bash$ path/nms/bin/auxnmsserver.bash auxstart ↵
```

where *path* is the 5620 SAM auxiliary server installation location, typically /opt/5620sam/auxserver

The 5620 SAM auxiliary server starts. Initial server startup can take twenty minutes or more.



**Note** — The order in which a 5620 SAM auxiliary server and the primary 5620 SAM server initialize is unimportant. The primary 5620 SAM server synchronizes with an auxiliary server as soon as it is able to communicate with the auxiliary server.

---

### Procedure 3-8 To add auxiliary servers to an existing 5620 SAM system

---

Perform this procedure to add one or more 5620 SAM auxiliary server to an existing 5620 SAM system. You must use the 5620 SAM server configuration utility to add the new auxiliary server to each main server configuration. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



**Caution** — This procedure requires that you stop each 5620 SAM main server, which is service-affecting. Perform this procedure only during a scheduled maintenance period.

In a redundant 5620 SAM deployment, you must reconfigure the primary main server before you reconfigure the standby main server.



**Note** — You require the following user privileges to perform this procedure:

on each main or auxiliary server station:

- root or root-equivalent
- samadmin

on each database station that has IP validation enabled:

- Oracle management

- 1 If the 5620 SAM is deployed in a standalone configuration, go to step 5.
- 2 Perform steps 5 to 10 on the primary main server.



**Note** — After you stop the primary main server in step 5, a server activity switch occurs and the standby main server becomes the new primary main server.

- 3 Perform steps 5 to 10 on the former standby (new primary) main server.
- 4 Go to step 11.
- 5 Perform the following steps to stop the 5620 SAM server application.
  - i Log in to the server station as the samadmin user.
  - ii Open a console window.
  - iii Enter the following at the CLI prompt to change to the server binary directory:

```
bash$ cd path/nms/bin ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

- iv Enter the following at the CLI prompt to stop the 5620 SAM server software:

```
bash$./nmsserver.bash stop ↵
```

The 5620 SAM main server stops.

- 6 Enter the following at the CLI prompt to switch to the root user:

```
bash$ su - ↵
```
- 7 You must use the 5620 SAM server installer to add the new auxiliary server to the main server configuration.

Place the 5620 SAM software DVD-ROM in a DVD-ROM drive.
- 8 Navigate to the DVD-ROM drive.

- 9 Perform one of the following to open the 5620 SAM server installer.
  - a On a Sun SPARC station:
    - i Enter the following at the CLI prompt:
 

```
cd Solaris ↵
```
    - ii Enter the following at the CLI prompt:
 

```
./ServerInstall_SAM_8_0_revision.bin ↵
```

where  
*revision* is the revision identifier, such as R1, R3, or another descriptor
  - b On a Sun X86-based station:
    - i Enter the following at the CLI prompt:
 

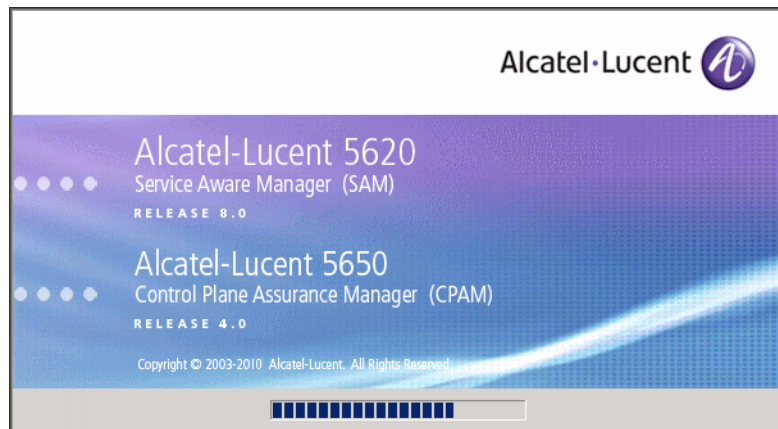
```
cd Solarisx86 ↵
```
    - ii Enter the following at the CLI prompt:
 

```
./ServerInstall_x86_SAM_8_0_revision.bin ↵
```

where  
*revision* is the revision identifier, such as R1, R3, or another descriptor

The splash screen shown in Figure 3-222 opens.

Figure 3-222 5620 SAM installer



- 10 Perform the following steps to add the new auxiliary server to the main server configuration.
  - i Accept the terms of the license agreement in the Software License Agreement panel.
  - ii Click on the Next button.

- iii Choose Main Server Configuration in the Choose Installation Type panel.
- iv Click on the Next button.
- v Click on the Next button in each successive panel until the Additional Server Configuration panel is displayed.
- vi Select the “Auxiliary Server Supported” parameter.
- vii Click on the Next button in each successive panel until the Main Server Configuration for Auxiliary Servers panel is displayed.
- viii Configure the following parameters:
  - Enable Stats Collection on Auxiliary Servers
  - Enable Call Trace Collection on Auxiliary Servers
- ix Click on the Next button. The Auxiliary Servers panel is displayed.
- x Click on the Add button.
- xi Configure the following parameters:
  - IP Address
  - Port (typically 12800)
  - Type (Preferred or Reserved)



**Note 1** — An auxiliary server can perform statistics collection or call-trace data collection, but not both.

**Note 2** — Statistics data collection requires only a preferred auxiliary server; a reserved auxiliary server is optional.

**Note 3** — Call-trace data collection requires at least one preferred and one reserved auxiliary server. The servers must be configured as a call-trace auxiliary server pair during 5620 SAM main server installation or upgrade.

**Note 4** — To minimize network latency between this main server and the Preferred auxiliary server that you specify in this step, specify an auxiliary server in the local network rather than an auxiliary server that is geographically remote.

- xii Click on the OK button to save the information and close the form.
- xiii Repeat steps 10 x to xii to add another auxiliary server, if required.
- xiv If “Enable Call Trace Collection on Auxiliary Servers” is selected in step 10 viii, click on the “Configure Call Trace Auxiliary Servers” button to open the Configure Call Trace Auxiliary Servers form. Otherwise, go to step 10 xvii.
- xv Select a preferred auxiliary server in the upper left panel and the associated reserved auxiliary server in the lower left panel, and click on the “Make Pair from Selected” button. The auxiliary servers move to the list on the right side of the form.

- xvi Repeat step 10 xv to configure another call-trace auxiliary server pair, if required.
  - xvii Click on the Next button.
  - xviii Click on the Next button in each successive panel until the Installation Complete panel is displayed.
  - xix Click on the Done button to close the server installer.
- 11 Perform the following steps on each 5620 SAM main server station to start the 5620 SAM server application.



**Caution** — In a redundant 5620 SAM deployment, you must start the former primary main server first, then the former standby main server. This ensures that the primary and standby designations are the same as at the start of the procedure.

- i Enter the following at the CLI prompt to change to the server binary directory:

```
cd path/nms/bin ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

- ii Enter the following at the CLI prompt to start the 5620 SAM server software:

```
./nmsserver.bash start ↵
```

- iii Enter the following at the CLI prompt:

```
bash$ path/nms/bin/nmsserver.bash -s nms_status ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

The command returns server status information.

If the main server is not completely started, the first line of status information is the following:

```
Main Server is not ready...
```

The primary 5620 SAM server is completely started when the command returns the following line of output:

```
-- Primary server is UP
```

The standby 5620 SAM server is completely started when the command returns the following line of output:

```
-- Standby server is UP
```

- iv If the command output indicates that the server is not completely started, wait five minutes and enter the command again to check the output.



**Note** — Do not proceed to the next step until the server is completely started.

- 12 If IP validation is enabled for database access, perform the following steps on each database station to enable validation of the auxiliary server.



**Caution** — In a redundant 5620 SAM deployment, you must perform this step on the primary database station first, then on the standby database station.

- i Log in to the database station as the Oracle management user.
- ii Open a console window.
- iii Enter the following at the CLI prompt to change to the Oracle network configuration directory:

```
bash$ cd path/network/admin ↵
```

where *path* is the Oracle base installation location, typically /opt/5620sam/oracle10r2

- iv Create a backup copy of the sqlnet.ora file.
- v Open the sqlnet.ora file with a plain-text editor, for example, vi.
- vi In the section labeled IP Validation, edit the TCP.VALIDNODE\_CHECKING line to read:

```
TCP.VALIDNODE_CHECKING = yes
```

- vii In the same section, edit the TCP.INVITED\_NODES line to read:

```
TCP.INVITED_NODES = (host | IP_address)
```

where

*host* is the hostname of the new auxiliary server

*IP\_address* is the IP address of the new auxiliary server



**Note** — You can specify multiple auxiliary servers by using a comma to separate entries, as follows:

```
TCP.INVITED_NODES =
(host_1 | IP_address_1 , host_2 | IP_address_2)
```

- viii Save the file.
- ix Close the file.



- x Enter the following sequence of commands at the CLI prompt to restart the Oracle database listener:

```
bash$ cd path/bin ↵
```

where *path* is the Oracle base installation location, typically /opt/5620sam/oracle10r2

```
bash$ lsnrctl stop ↵
```

```
bash$ lsnrctl start ↵
```

- xi Close the console window.

- 13 Perform Procedure 3-7 to install the 5620 SAM auxiliary server software on the station that is to be the new 5620 SAM auxiliary server station.
-



## *4 — 5620 SAM upgrade on Solaris*

---

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## 4.1 5620 SAM upgrade on Solaris overview

Before you attempt to perform a procedure in this chapter, ensure that you understand and comply with the relevant requirements, considerations, and precautions described in chapter 1 of this document.



**Caution 1** — An upgrade of a 5620 SAM system in a network requires that you thoroughly understand the general and OS-specific requirements of the task. It is essential that the upgrade procedure be planned, documented and tested in advance on a lab system that is representative of the target live network.

Contact Alcatel-Lucent technical support to assess the upgrade requirements for your network implementation of the 5620 SAM. Alcatel-Lucent offers an upgrade service and strongly recommends that it be engaged for upgrades in larger or more complex networks.

**Caution 2** — Alcatel-Lucent supports 5620 SAM software configuration only under the conditions described in chapter 1.

## 4.2 5620 SAM upgrade on Solaris procedures list

Table 4-1 lists the procedures required to perform 5620 SAM software upgrade activities on a Solaris platform.

Table 4-1 5620 SAM upgrade on Solaris procedures list

| Procedure                                           | Purpose                                                                                                                                                                                                                              |
|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| To perform the pre-upgrade tasks                    | Prepare a standalone or redundant 5620 SAM system on Solaris for a software upgrade by ensuring the correct conditions are in place, gathering the required system information, and backing up the configuration files and database. |
| To upgrade a standalone 5620 SAM system on Solaris  | Upgrade the 5620 SAM database and server software in a standalone configuration on one or more Solaris stations.                                                                                                                     |
| To upgrade a 5620 SAM single-user client on Solaris | Upgrade the 5620 SAM single-user client software on a Solaris station.                                                                                                                                                               |
| To upgrade a 5620 SAM client delegate server        | Upgrade the 5620 SAM client delegate server software.                                                                                                                                                                                |
| To upgrade a redundant 5620 SAM system on Solaris   | Upgrade the 5620 SAM database and server software in a redundant configuration on Solaris stations.                                                                                                                                  |
| To upgrade a 5620 SAM auxiliary server              | Upgrade the 5620 SAM auxiliary server software on a Solaris station that is part of a standalone or redundant 5620 SAM system.                                                                                                       |

## 4.3 5620 SAM system upgrade preparation

This section describes how to prepare for the upgrade of a standalone or redundant 5620 SAM system on Solaris.

Before you attempt a 5620 SAM system upgrade, you must collect the required information and ensure that the proper upgrade conditions are in place. To do this, perform Procedure 4-1.



**Note** — Command-line examples use the following to represent the Solaris CLI prompts:

- #—represents the prompt for a root or root-equivalent user
- bash\$—represents the prompt for the samadmin and Oracle management users

Do not type the # symbol or bash\$ when entering a command.

---

### Procedure 4-1 To perform the pre-upgrade tasks

---

Perform this procedure to prepare a standalone or redundant 5620 SAM system on Solaris for a 5620 SAM software upgrade.



**Note** — You require the following user privileges to perform this procedure:

on each main server station:

- root or root-equivalent

on each database station:

- root or root-equivalent
- Oracle management

#### Remove failed deployments

- 1 Remove all outstanding failed deployments. See the *5620 SAM User Guide* for information about deleting a failed deployment.

#### Back up database

- 2 Alcatel-Lucent strongly recommends that you perform a database backup using one of the following methods before you upgrade the 5620 SAM database.



**Caution** — When you back up a 5620 SAM database, you must specify a backup directory that does not include the 5620 SAM database installation directory, or data loss may occur. The default 5620 SAM database installation directory is /opt/5620sam/samdb.

Perform one of the following.

- a Use the 5620 SAM client GUI. See the *5620 SAM User Guide* for information about how to perform a database backup using the client GUI.
- b Use a CLI script. Perform the following steps.
  - i Log in to the appropriate station as the Oracle management user.
    - the standalone database station in a standalone 5620 SAM system
    - the primary database station in a redundant 5620 SAM system
  - ii Open a console window.
  - iii Enter the following at the CLI prompt to begin the database backup:

```
bash$ path/install/config/samdb/SAMbackup.sh
backup_directory ↵
```

where  
*path* is the 5620 SAM database installation location, typically /opt/5620sam/samdb  
*backup\_directory* is the directory that is to contain the database backup  
The 5620 SAM backs up the database.
  - iv Record the backup directory location.
  - v Copy the database backup files from the backup directory to a secure location, such as a non-5620 SAM station, for safekeeping.

### Verify external-system compatibility

- 3 Ensure that the new 5620 SAM software is compatible with the software release level of each external system, such as the 5750 SSC, that connects to the 5620 SAM system. Contact Alcatel-Lucent technical support for information about 5620 SAM compatibility with an external system.

**Verify managed-device and 5620 SAM policy compatibility**

- 4 Confirm that the new 5620 SAM software release supports the software release of each 5620 SAM-managed device. Perform one of the following for each unsupported device before you attempt the upgrade, or a service disruption may occur. See the *5620 SAM NE Compatibility Guide* for information about managed-device release and 5620 SAM release compatibility.
  - a Upgrade the device to a software release that the new 5620 SAM software supports. See the appropriate device documentation for information about device software upgrades.
  - b Remove the device from the 5620 SAM managed network. See the *5620 SAM User Guide* for information about performing the following steps.
    - i Use a 5620 SAM client to unmanage the device.
    - ii When the device is unmanaged, use the 5620 SAM client to remove the device from the 5620 SAM network.



**Note** — If you have a 5620 SAM system that manages one or more OmniSwitch devices as generic NEs, you must unmanage and delete the OmniSwitch generic NEs before you upgrade the 5620 SAM software.

You can manage the devices directly, rather than as generic NEs, when the 5620 SAM upgrade is complete.

- 5 If you are upgrading from 5620 SAM Release 7.0 R4 or later, perform the following steps to ensure the compatibility of the egress queue group template policies.
  - i Choose Policies→QoS→SROS QoS→Queue Group→Egress Template from the 5620 SAM main menu. The Manage Egress Queue Group Template Policies form opens.
  - ii Click on the Search button.
  - iii View the list. If no policy has the following Displayed Name value, go to step 6:  
 policer-output-queues
  - iv Select the policy named policer-output-queues and click on the Properties button. The Egress Queue Group Template Policy (Edit) form opens.
  - v Click on the Copy button. The Egress Queue Group Template Policy (Create) form opens.
  - vi Change the Displayed Name value to something other than policer-output-queues.
  - vii Distribute the policy to devices, as required.
  - viii Delete the policy named policer-output-queues.
- 6 If you are upgrading from 5620 SAM Release 6.0, you must update the SNMP configuration of each 7750 SR that you manage using SNMPv3. Otherwise, the 5620 SAM cannot perform mediation of VPRN objects on the device.

Perform the following steps on each 7750 SR that you manage using SNMP v3:

i Open a CLI session on the managed device.

ii Enter the following command at the prompt:

```
configure system security snmp ↵
```

iii Enter the following command at the prompt:

```
access group "snmpv3_groupname" security-model usm
security-level privacy context vprn prefix read "vprn-view"
write "vprn-view" notify "iso" ↵
```

where

*snmpv3\_groupname* is the name that is being assigned to the SNMP group

iv Enter the following command at the prompt:

```
exit all ↵
```

### Close 5620 SAM LogViewer

- 7 If you are upgrading from 5620 SAM Release 6.1 or later, close the 5620 SAM LogViewer application, if it is open.



**Caution** — If the 5620 SAM LogViewer is running during a 5620 SAM upgrade, the upgrade fails.

### Open port for client/server communication

- 8 Confirm that the firewalls between the 5620 SAM main server and client allow traffic to the HTTP or HTTPS port used for performing automatic client updates. Otherwise, you cannot perform a client installation. By default, the auto-update utility uses HTTP. See the *5620 SAM User Guide* for information about configuring 5620 SAM clients and servers to communicate using HTTP or HTTPS.

### Back up configuration files

- 9 Make a backup copy of each file that you have created or customized in or under the *path/nms* and *path/jre* directories on each server station

where *path* is the 5620 SAM server installation location, typically */opt/5620sam/server*



**Note** — At the beginning of a 5620 SAM server upgrade, the 5620 SAM installation utility backs up specific configuration and log files to a timestamped directory under the installation directory. The utility then deletes directories under the server installation directory. If you have created or customized a file under the installation directory, you risk losing the file unless you back up the file before the upgrade to a storage location that is unaffected by the upgrade.



Store the files in a secure location that is unaffected by 5620 SAM upgrade activity.

- 10 Make a copy of any custom XML configuration files in the *path*/nms/jboss directory on each server station

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

Store the files in a secure location that is unaffected by 5620 SAM upgrade activity.

- 11 If the main servers in the 5620 SAM system are configured to use SSL or HTTPS to communicate with other systems, make note of the main-server interfaces that use the protocols. The interfaces may include the following:
  - the EJB interface used for the single-user 5620 SAM GUI clients and client delegate servers
  - the JMS interface used for the single-user 5620 SAM GUI clients, OSS clients, client delegate servers and auxiliary servers
  - the HTTP interface used for the single-user 5620 SAM GUI clients and client delegate servers
  - the HTTP interface used for the 5620 SAM OSS clients



**Note** — A 5620 SAM software upgrade removes an SSL or HTTPS configuration on a 5620 SAM component. If a component uses SSL or HTTPS before an upgrade, you must enable SSL, and HTTPS, if required, after the upgrade. See the *5620 SAM User Guide* for information about configuring SSL and HTTPS for 5620 SAM components.

### Gather required information

- 12 Obtain the following information from each main server station in the 5620 SAM system and record it for use during the upgrade:
  - hostname, which is one of the following:
    - the hostname specified for the main server station during the previous 5620 SAM software installation or upgrade
    - the local hostname, if an IP address was specified for the main server station during the previous 5620 SAM software installation or upgrade
  - IP addresses
    - server IP addresses used by 5620 SAM databases to reach the server (public IP addresses, if NAT is used)
    - server IP address used by 5620 SAM GUI and OSS clients to reach the server (public IP address, if NAT is used)
    - server IP address used by 5620 SAM auxiliary servers to reach the server (public IP address, if NAT is used)
    - private server IP address (if NAT is used)
  - root user password

- 13 Perform the following steps to obtain the redundancy information for each server and database in the 5620 SAM system.
  - i Open a 5620 SAM client.
  - ii Choose Administration→System Information from the 5620 SAM main menu. The System Information window is displayed.
  - iii Record the following information for use during the upgrade:
    - Domain Name
    - In the Primary Server panel:
      - IP Address
      - Host Name
      - Status
    - In the Primary Database Server panel:
      - Database Name
      - Instance Name
      - IP Address
      - Host Name
  - iv If the 5620 SAM system is deployed in a redundant configuration, record the following information for use during the upgrade:
    - In the Standby Server panel:
      - IP Address
      - Host Name
      - Status
    - In the Standby Database Server panel:
      - Database Name
      - Instance Name
      - IP Address
      - Host Name
- 14 If the 5620 SAM system includes one or more auxiliary servers, click on the Auxiliary Servers tab button. A list of auxiliary servers is displayed. Otherwise, go to step [16](#).
- 15 Perform the following steps for each auxiliary server listed on the form:
  - i Select an auxiliary server in the list and click on the Properties button. The properties form for the auxiliary server opens.
  - ii Record the following information for use during the upgrade:
    - Host Name
    - Port Number
    - Auxiliary Server Type
    - Server Status
    - Public IP address
    - Private IP address (if displayed)
  - iii Close the auxiliary server properties form.

- 16 If the 5620 SAM system includes one or more client delegate servers, click on the Client Delegate Servers tab button. Otherwise, go to step 18.
- 17 Perform the following steps for each client delegate server listed on the form:
  - i Select a client delegate server in the list and click on the Properties button. The properties form for the client delegate server opens.
  - ii Record the IP Address value for use during the upgrade.
  - iii Close the client delegate server properties form.
- 18 Close the System Information form, if it is open.
- 19 Obtain the following information from each database station in the 5620 SAM system and record it for use during the upgrade:
  - hostname
  - IP addresses
    - database IP addresses used by 5620 SAM servers to reach the database (public IP addresses, if NAT is used)
    - database IP address used by 5620 SAM auxiliary servers to reach the database (public IP address, if NAT is used)
    - private database IP address (if NAT is used)
  - root user password
  - Oracle management user information:
    - UNIX username (default value at installation is oracle)
    - UNIX group name (default value at installation is oracle)
    - UNIX home directory (default value at installation is /opt/5620sam/oracle)
  - Oracle database user ID (default value at installation is samuser)
  - Oracle database user password
  - Oracle SYS password
  - Oracle base installation directory name (default value at installation is /opt/5620sam/oracle)
  - 5620 SAM database installation directory name (default value at installation is /opt/5620sam/samdb)

#### Close client sessions

- 20 Close all unrequired open 5620 SAM client sessions.
  - i Open a 5620 SAM client session using an account with security management privileges, such as admin.
  - ii Click on Administration→Security→5620 SAM User Security in the 5620 SAM main menu. The 5620 SAM User Security - Security Management (Edit) form opens with the General tab displayed.
  - iii Click on the Sessions tab button.
  - iv Click on the Search button. The form displays a list of the open 5620 SAM client sessions.
  - v Using the IP addresses in the Client IP column, identify the GUI and OSS clients that are currently logged in.

- vi Close the client sessions by selecting them and clicking on the Close Session button. A dialog box appears.
  - If you are performing a standalone upgrade, you must close all open 5620 SAM client sessions.
  - If you are performing a redundant upgrade, you must close all open 5620 SAM client sessions except for those required to monitor the network during the upgrade.



**Note** — One of the listed sessions is the session that you are using. Do not attempt to close this session.

- vii Click on the Yes button to confirm the action.
  - viii Click on the Search button to refresh the list of open client sessions.
- 21 If the 5620 SAM client that you are using is not required for network monitoring during the upgrade, close the 5620 SAM client by choosing Application→Exit from the 5620 SAM main menu.
- 

## 4.4 Workflow for standalone 5620 SAM upgrade on Solaris

The following is the sequence of high-level actions required to upgrade a 5620 SAM standalone system on Solaris. A section heading in quotation marks is a reference to a section in Procedure 4-2.

- 1 Perform the pre-upgrade tasks. See Procedure 4-1 for more information.
- 2 Back up the 5620 SAM database, if not done as a pre-upgrade task. See [“Back up database”](#) for more information.
- 3 Stop the 5620 SAM server application. See [“Stop server”](#) for more information.
- 4 Disable the 5620 SAM server startup daemon. See [“Disable server daemon”](#) for more information.
- 5 Prepare the 5620 SAM database for the upgrade. See [“Prepare database for upgrade”](#) for more information.
- 6 Disable the 5620 SAM database and Oracle proxy startup daemons. See [“Disable database daemons”](#) for more information.
- 7 Upgrade the database. See [“Upgrade database”](#) for more information.
- 8 Upgrade the server. See [“Upgrade server”](#) for more information.
- 9 If other components in the 5620 SAM system use SSL or HTTPS to communicate with the server, you must reconfigure SSL, and HTTPS, if required, on the main server interfaces, before the main server can communicate with the other components. See [“Configure communication security for main server”](#) for more information.

- 10 Upgrade or install the 5620 SAM client software, as required. See [“Upgrade or install 5620 SAM client”](#) for more information.
- 11 If you are upgrading from 5620 SAM Release 6.0 or 6.1, you must perform a routing policy migration. See [“Perform routing policy migration”](#) for more information.

## 4.5 Standalone 5620 SAM system upgrade on Solaris procedures

This section describes how to upgrade the software components of a standalone 5620 SAM system on Solaris.

Before you begin a 5620 SAM system upgrade, you must collect the required information and ensure that the proper conditions are in place. Procedure [4-1](#) describes how to perform the required tasks to prepare for a 5620 SAM system upgrade.

Procedure [4-2](#) describes how to upgrade the 5620 SAM database and main server software. Procedure [4-3](#) describes how to upgrade a 5620 SAM single-user client. Procedure [4-4](#) describes how to upgrade a 5620 SAM client delegate server.



**Note —** Command-line examples use the following to represent the Solaris CLI prompts:

- #—represents the prompt for a root or root-equivalent user
- bash\$—represents the prompt for the samadmin and Oracle management users

Do not type the # symbol or bash\$ when entering a command.

## Procedure 4-2 To upgrade a standalone 5620 SAM system on Solaris

Perform this procedure to upgrade the 5620 SAM database and main server software in a standalone 5620 SAM system on one or more Solaris stations. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



**Note** — You require the following user privileges to perform this procedure:

on the main server station:

- root or root-equivalent
- samadmin (if you are upgrading from 5620 SAM Release 6.1 or later)

on the database station:

- root or root-equivalent
- Oracle management

- 1 Open at least one 5620 SAM client to monitor the network before the first server and database are upgraded.

### Back up database

- 2 Alcatel-Lucent strongly recommends that you perform a database backup before you perform a 5620 SAM system upgrade. If you did not perform a database backup as part of the pre-upgrade preparation in Procedure 4-1, back up the database now using a CLI script.



**Caution** — When you back up a 5620 SAM database, you must specify a backup directory that does not include the 5620 SAM database installation directory, or data loss may occur. The default 5620 SAM database installation directory is /opt/5620sam/samdb.

Perform the following steps.

- i Log in to the database station as the Oracle management user.
- ii Open a console window.
- iii Enter the following at the CLI prompt to begin the database backup:

```
bash$ path/install/config/samdb/SAMbackup.sh
backup_directory ↵
```

where

*path* is the 5620 SAM database installation location, typically /opt/5620sam/samdb  
*backup\_directory* is the directory that is to contain the database backup

The 5620 SAM backs up the database.

- iv Record the backup directory location.
- v Copy the database backup files from the backup directory to a secure location, such as a non-5620 SAM station, for safekeeping.

### Stop server

- 3 Stop the 5620 SAM server application.



**Note —** Because the CLI prompts for the samadmin and root or root-equivalent users differ, no CLI prompts are shown in the step text.

- i Log in to the server station as the appropriate user:
  - If you are upgrading from 5620 SAM Release 6.1 or later, you must log in as the samadmin user.
  - If you are upgrading from 5620 SAM Release 6.0, you must log in as a root or root-equivalent user.

- ii Open a console window.

- iii Enter the following at the CLI prompt to change to the server binary directory:

```
cd path/nms/bin ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

- iv Enter the following at the CLI prompt to stop the 5620 SAM server software:

```
./nmsserver.bash stop ↵
```

- v Enter the following at the CLI prompt to display the 5620 SAM server status:

```
./nmsserver.bash appserver_status ↵
```

The command displays a status message.

- vi The 5620 SAM server is stopped when the command displays the following status message:

```
Application Server is stopped
```

If the command displays a different message, wait 5 m and repeat step 3 v. Do not proceed to the next step until the server is stopped.

### Disable server daemon

- 4 Disable the 5620 SAM server startup daemon. This ensures that the 5620 SAM server does not automatically start in the event of a power disruption during the upgrade.

- i Log in to the server station as a user with root or root-equivalent privileges.
- ii Open a console window.
- iii Enter the following at the CLI prompt to change to the /etc/rc3.d directory:

```
cd /etc/rc3.d ↵
```

- iv Enter the following at the CLI prompt to disable the 5620 SAM server daemon by renaming it:

```
mv S975620SAMServerWrapper
inactive.S975620SAMServerWrapper ↵
```

### Prepare database for upgrade

- 5 Log in to the database station as a user with root or root-equivalent privileges.
- 6 Open a console window.
- 7 Place the new 5620 SAM software DVD-ROM in a DVD-ROM drive.
- 8 You must run a pre-upgrade script that configures the UNIX account for the Oracle management user and adds configuration information to the /etc/system file.

Navigate to the DVD-ROM drive that contains the new 5620 SAM software DVD-ROM.



**Caution** — Ensure that you run only the pre-installation script that is on the new 5620 SAM software DVD-ROM. Using a different version of the script may cause the database upgrade to fail.

- 9 Perform one of the following to change to the appropriate Solaris directory.

- a On a Sun SPARC station, enter the following at the CLI prompt:

```
cd Solaris ↵
```

- b On a Sun X86-based station, enter the following at the CLI prompt:

```
cd Solarisx86 ↵
```

- 10 Enter the following at the CLI prompt:

```
./Oracle10g_PreInstall.sh ↵
```

The following prompt is displayed:

Please select between the following option:

1) NEW INSTALL OF 5620 SAM



## 2) UPGRADE OF 5620 SAM

11 Enter 2 ↵.

12 The script prompts you for the following Oracle management user information:

- the user group name (default is dba)
- the user name (default is oracle)
- the home directory (default is /opt/5620sam/oracle10r2)
- a password, if one of the following is true:
  - there is no password
  - there is a password, but you specify that you want to change it

Provide the information. The script updates the system configuration.



**Note 1** — To reduce the complexity of subsequent software upgrades and technical support activities, Alcatel-Lucent recommends that you press ↵ to accept the default value for each parameter.

**Note 2** — If you specify a value other than the default, you must record the value for use when the Oracle10g\_PreInstall.sh script is run during a software upgrade, or when the Oracle management user information is required by Alcatel-Lucent technical support.

**Note 3** — Running the script may generate messages that are similar to the following; these are not error messages and can be ignored.

- WARNING: Group dba already exists locally.
- WARNING: Oracle user with the specified name already exists locally.
- projadd: Duplicate project name "Oracle10R2"

### Disable database daemons

13 Disable the 5620 SAM Oracle proxy and database startup daemons. This ensures that the 5620 SAM database does not automatically start in the event of a power disruption during the upgrade.

i Enter the following at the CLI prompt to change to the /etc/rc3.d directory:

```
cd /etc/rc3.d ↵
```

ii Enter the following at the CLI prompt to disable the 5620 SAM database startup daemon by renaming it:

```
mv S95db5620sam inactive.S95db5620sam ↵
```

iii Enter the following at the CLI prompt to disable the 5620 SAM Oracle proxy daemon by renaming it:

```
mv S965620SAMOracleProxyWrapper
inactive.S965620SAMOracleProxyWrapper ↵
```

- 14 Enter the following at the CLI prompt to reboot the database station and put the system update into effect:

```
shutdown -y -i6 -g0 ↵
```

The database station reboots.

### Upgrade database

- 15 After the database station reboots, log in to the database station as the Oracle management user.
- 16 Open a console window.
- 17 Navigate to the DVD-ROM drive that contains the new 5620 SAM software DVD-ROM.
- 18 Perform one of the following to open the 5620 SAM database installer.

- a On a Sun SPARC station:

- i Enter the following at the CLI prompt:

```
bash$ cd Solaris ↵
```

- ii Enter the following at the CLI prompt:

```
bash$./DBConfig_SAM_8_0_revision.bin ↵
```

where

*revision* is the revision identifier, such as R1, R3, or another descriptor

- b On a Sun X86-based station:

- i Enter the following at the CLI prompt:

```
bash$ cd Solarisx86 ↵
```

- ii Enter the following at the CLI prompt:

```
bash$./DBConfig_x86_SAM_8_0_revision.bin ↵
```

where

*revision* is the revision identifier, such as R1, R3, or another descriptor

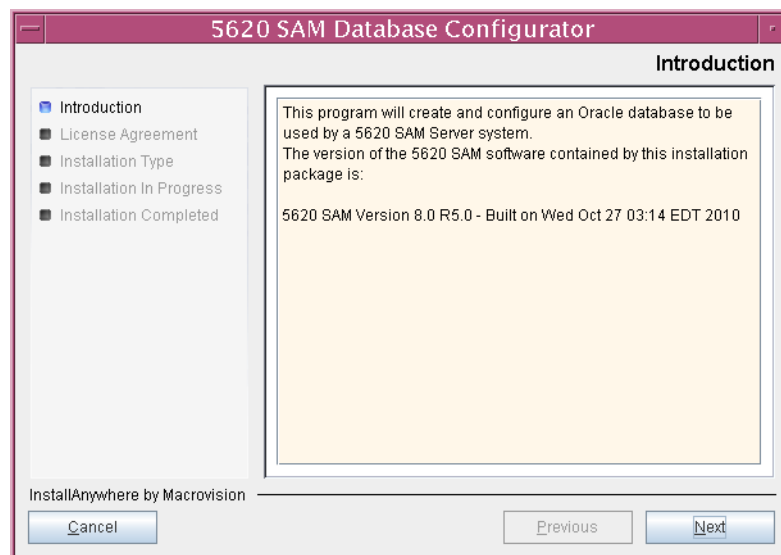
The splash screen shown in Figure 4-1 opens.

Figure 4-1 5620 SAM installer



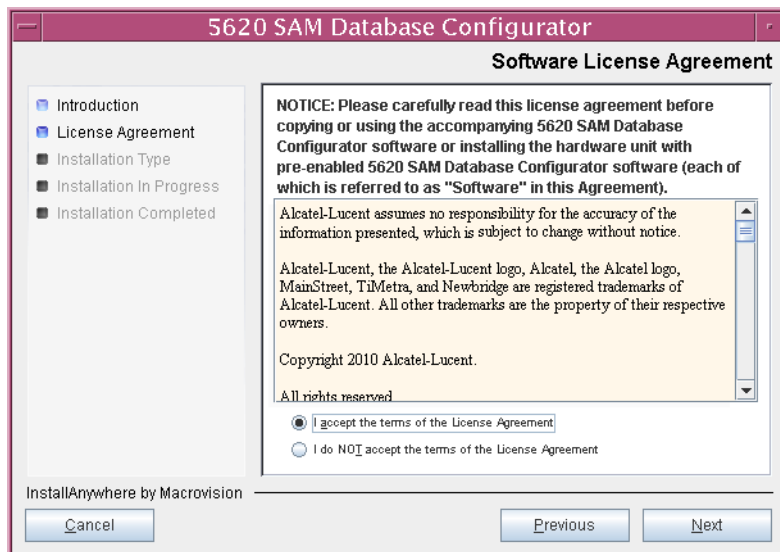
- 19 The 5620 SAM database installer opens, as shown in Figure 4-2. The left pane indicates upgrade progress. The right pane displays release information about the software. Click on the Next button.

Figure 4-2 Introduction



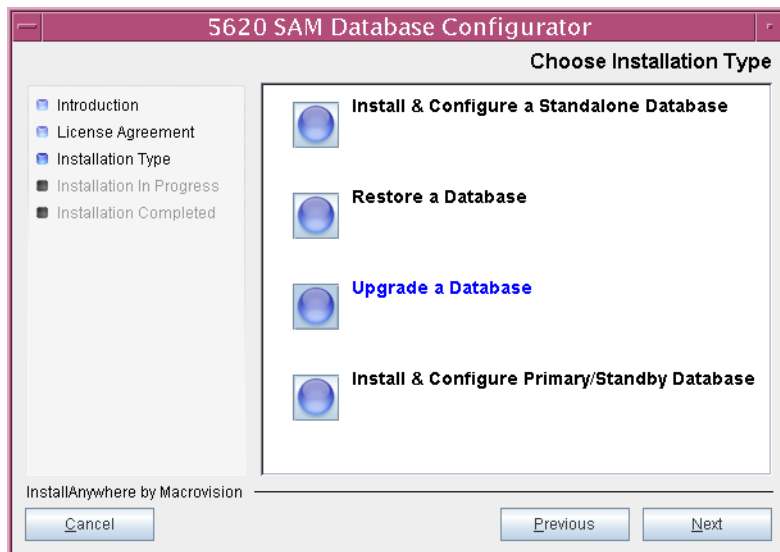
- 20 Review and accept the terms of the license agreement shown in Figure 4-3. Click on the Next button.

Figure 4-3 Software License Agreement



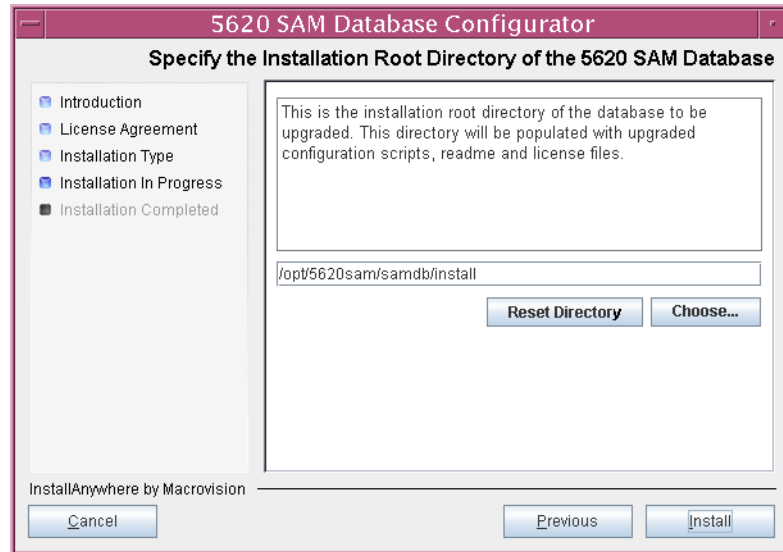
- 21 Select Upgrade a Database, as shown in Figure 4-4. Click on the Next button.

Figure 4-4 Choose Installation Type



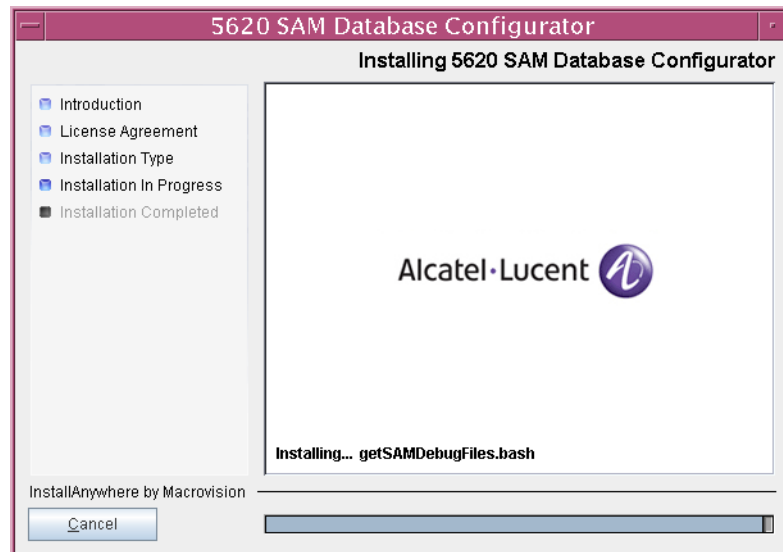
- 22 Specify the directory in which the 5620 SAM database files are installed (typically /opt/5620sam/samdb/install), as shown in Figure 4-5. Click on the Install button to begin the installer configuration.

Figure 4-5 Specify the Installation Root Directory of the 5620 SAM Database



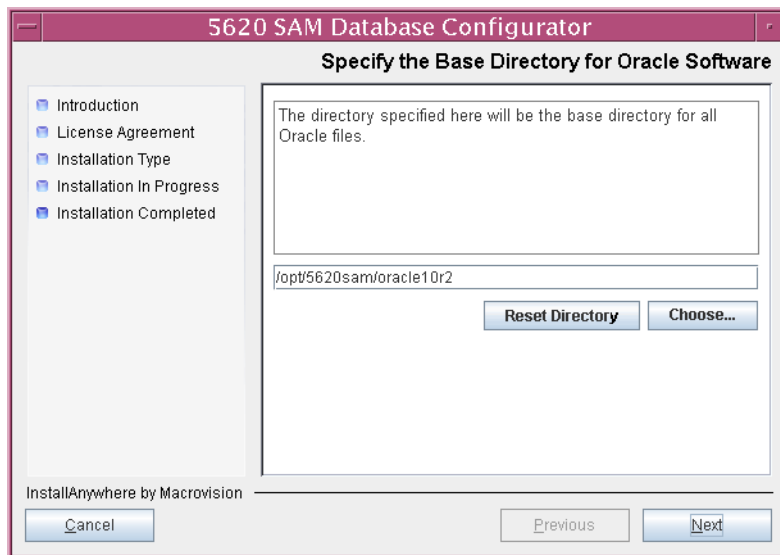
The installer prepares to upgrade the database, as shown in Figure 4-6.

Figure 4-6 Installing 5620 SAM Database Configurator



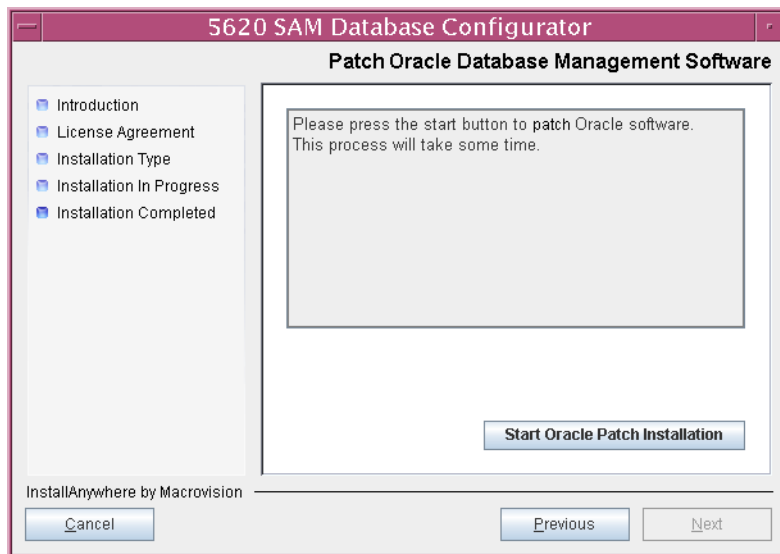
- 23 The panel shown in Figure 4-7 displays the Oracle software installation directory, which cannot be changed. Click on the Next button.

Figure 4-7 Specify the Base Directory for Oracle Software



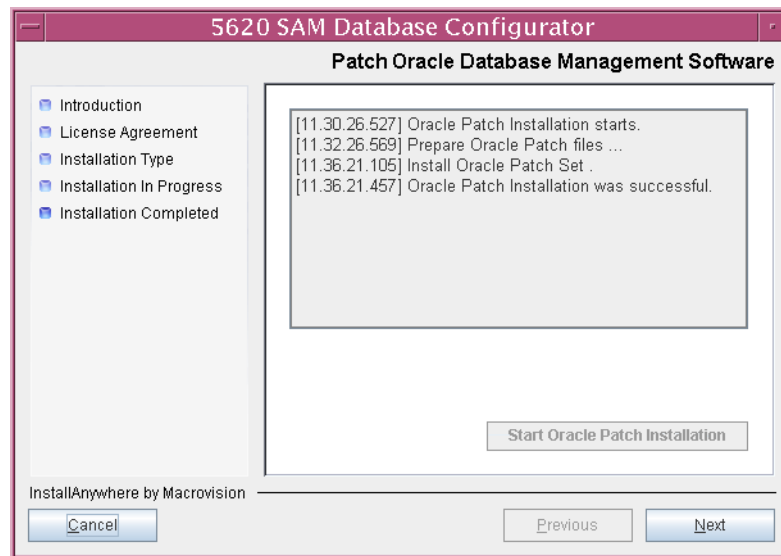
- 24 If the panel in Figure 4-8 is displayed, perform the following steps.

Figure 4-8 Patch Oracle Database Management Software



- i Click on the “Start Oracle Patch Installation” button to begin installing the Oracle patch. Oracle patch installation can take an hour or more to complete.
- ii Oracle patch installation details are displayed as the patch installation progresses. When the patch installation is complete, as shown in Figure 4-9, click on the Next button to continue.

Figure 4-9 Patch Oracle Database Management Software



25 Configure the following parameters shown in Figure 4-10 using information from the existing 5620 SAM installation, then click on the Next button:

- NAT (network address translation) Used
- Public IP (accessible to servers)
- Private IP
- Database Name (typically samdb)
- Instance Name (typically samdb)
- User Name (typically samuser)
- User Password



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected.

Figure 4-10 Get Upgrade Database Info

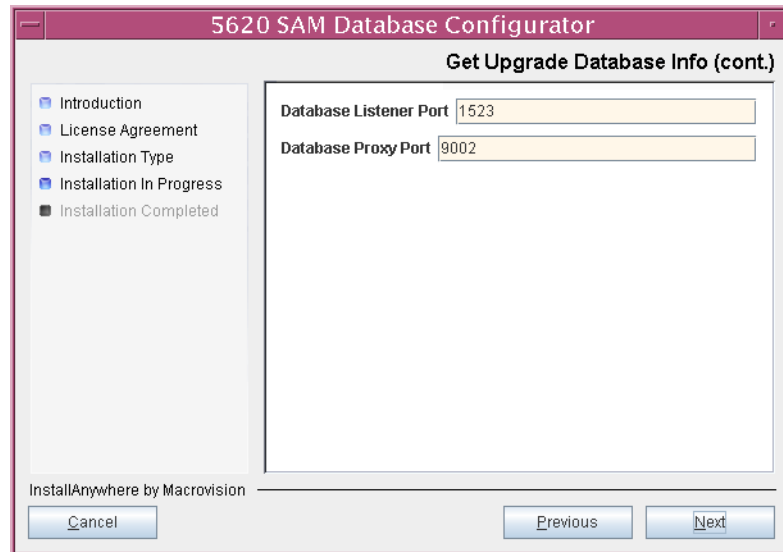
The screenshot shows a window titled "5620 SAM Database Configurator" with a sub-tab "Get Upgrade Database Info". On the left is a navigation pane with five items: "Introduction", "License Agreement", "Installation Type", "Installation In Progress" (which is selected and highlighted), and "Installation Completed". The main area contains a text box with instructions: "Enter the network interface information that the database will use to communicate with the servers. If NAT (network address translation) is to be used, specify both the database's private and public IP addresses." Below this is a checkbox labeled "NAT (network address translation) Used" which is checked. To the right of the checkbox is a dropdown menu for "Public IP (accessible to servers)" showing the value "192.168.200.133". Below the dropdown are four text input fields: "Database Name" with the value "samdb", "Instance Name" with the value "samdb", "User Name" with the value "samuser", and "User Password" with masked characters "\*\*\*\*\*". At the bottom left of the window is the text "InstallAnywhere by Macrovision" and a "Cancel" button. At the bottom right are "Previous" and "Next" buttons.



26 Configure the following parameters shown in Figure 4-11 using information from the existing 5620 SAM installation, then click on the Next button:

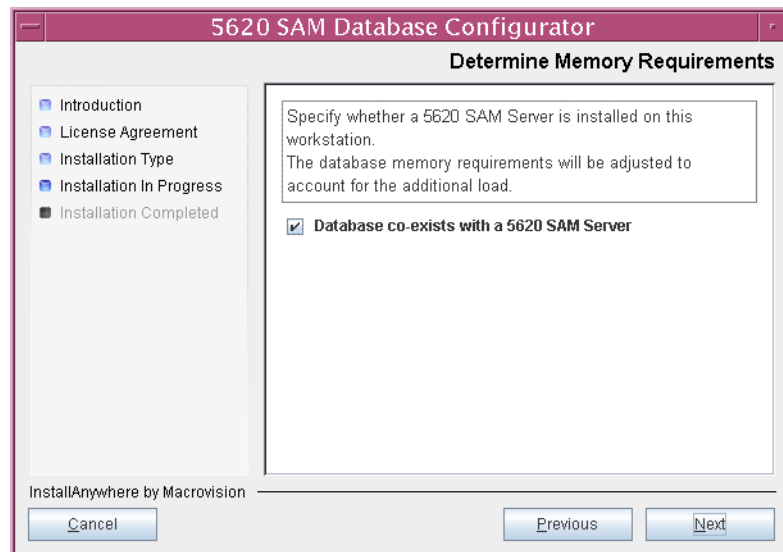
- Database Listener Port (typically 1523)
- Database Proxy Port (typically 9002)

Figure 4-11 Get Upgrade Database Info (cont.)



27 If the 5620 SAM server and database are installed on the same station, select the "Database co-exists with a 5620 SAM Server" parameter shown in Figure 4-12. Click on the Next button.

Figure 4-12 Determine Memory Requirements



- 28 If the “Enable SAM Server IP Validation” parameter shown in Figure 4-13 is selected, only the server at the specified IP addresses or hostnames can connect to the database. If required, select it and configure the following parameters. Click on the Next button.

Figure 4-13 Main Server IP Validation

The screenshot shows the "5620 SAM Database Configurator" window with the "Main Server IP Validation" tab selected. On the left, a list of steps includes "Introduction", "License Agreement", "Installation Type", "Installation In Progress", and "Installation Completed". The main area contains a text box with instructions about NAT and IP validation, a checkbox for "Enable SAM Server IP Validation", and a text field for "SAM Server IP Address". At the bottom, there are "Cancel", "Previous", and "Next" buttons, along with the text "InstallAnywhere by Macrovision".

5620 SAM Database Configurator

**Main Server IP Validation**

If NAT (network address translation) is to be used, enter the 5620 SAM main server public IP address as known to this 5620 SAM database. If IP address validation is enabled, the database will allow only connections from the specified server.

☐ Enable SAM Server IP Validation

SAM Server IP Address

InstallAnywhere by Macrovision

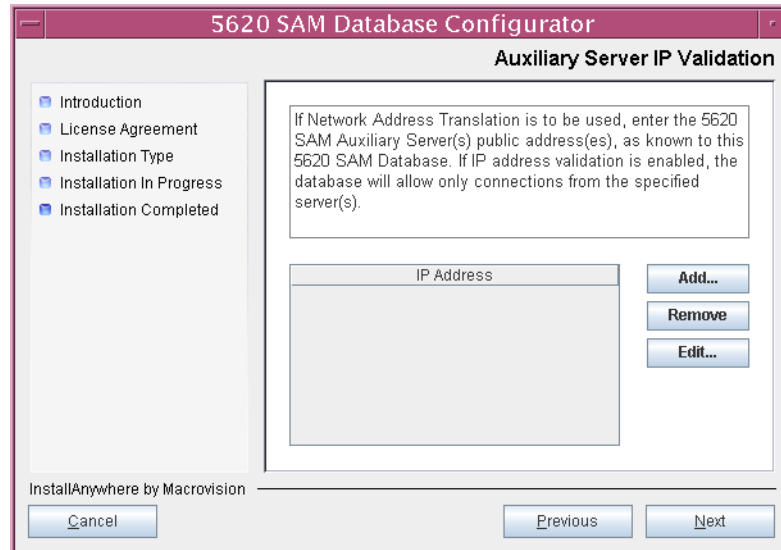
Cancel Previous Next

- 29 Depending on the 5620 SAM release from which you are upgrading, the panel in Figure 4-14 is displayed if the “Enable SAM Server IP Validation” parameter in step 28 is selected. Otherwise, go to step 31.

If the 5620 SAM system includes an auxiliary server, perform the following steps.

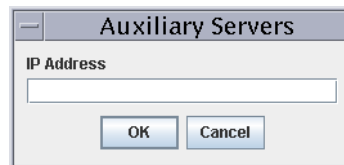
- i Click on the Add button shown in Figure 4-14. The Auxiliary Server Configuration form shown in Figure 4-15 opens.

Figure 4-14 Auxiliary Server IP Validation



- ii Enter the IP address or hostname of the auxiliary server.

Figure 4-15 Auxiliary Servers



- iii Click on the OK button to save the information and close the form.
  - iv Repeat steps 29 i to iii to specify an additional auxiliary server, if required.
- 30 Click on the Next button.

- 31 If the panel in Figure 4-16 is displayed, specify a directory for the continuous statistics tablespace backup. Click on the Next button.

Figure 4-16 Staging Destination

The screenshot shows the "5620 SAM Database Configurator" window. On the left is a navigation pane with five items: "Introduction", "License Agreement", "Installation Type", "Installation In Progress", and "Installation Completed". The "Installation Completed" item is selected and highlighted. The main area is titled "Staging Destination" and contains the following text: "Specify a staging directory for the files created by the continuous statistics tablespace backup. The directory must be located on a low-activity device, such as a disk that is dedicated to this function only." Below this text is a text input field containing the path "/opt/5620sam/dbbackup/staging". To the right of the input field are two buttons: "Reset Directory" and "Choose...". At the bottom of the window, there is a status bar that says "InstallAnywhere by Macrovision" and three buttons: "Cancel", "Previous", and "Next".

- 32 Configure the "Accounting Statistics Database Retention Period" parameter shown in Figure 4-17. Click on the Next button.

Figure 4-17 Accounting Statistics Database Retention Period

The screenshot shows the "5620 SAM Database Configurator" window. On the left is a navigation pane with five items: "Introduction", "License Agreement", "Installation Type", "Installation In Progress", and "Installation Completed". The "Installation Completed" item is selected and highlighted. The main area is titled "Accounting Statistics Database Retention Period" and contains the following text: "Enter the accounting statistics retention period (in days). The retention period is the maximum number of days that records are kept in the database. Using a longer retention period will require more disk space." Below this text is a text input field labeled "Accounting Statistic Data Retention Period" with the value "1" entered. At the bottom of the window, there is a status bar that says "InstallAnywhere by Macrovision" and three buttons: "Cancel", "Previous", and "Next".

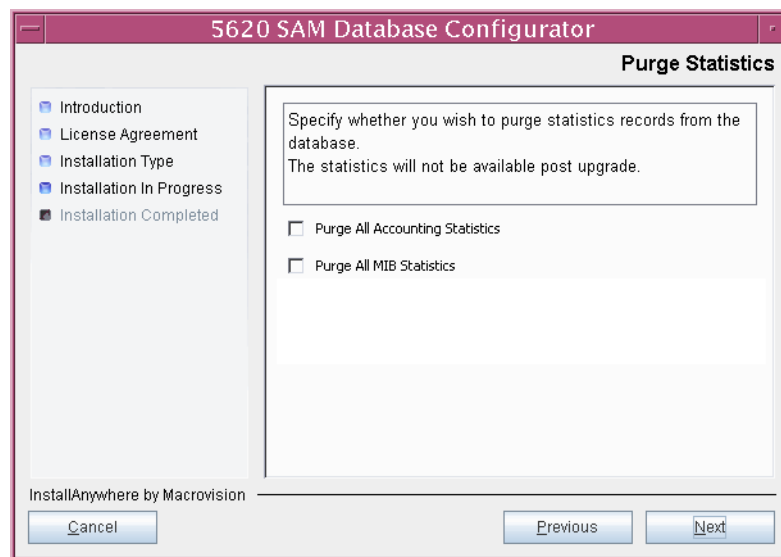
- 33 To reduce the time required for the database upgrade, you can purge the current 5620 SAM statistics data. Configure the following parameters shown in Figure 4-18, then click on the Next button:

- Purge All Accounting Statistics
- Purge All MIB Statistics



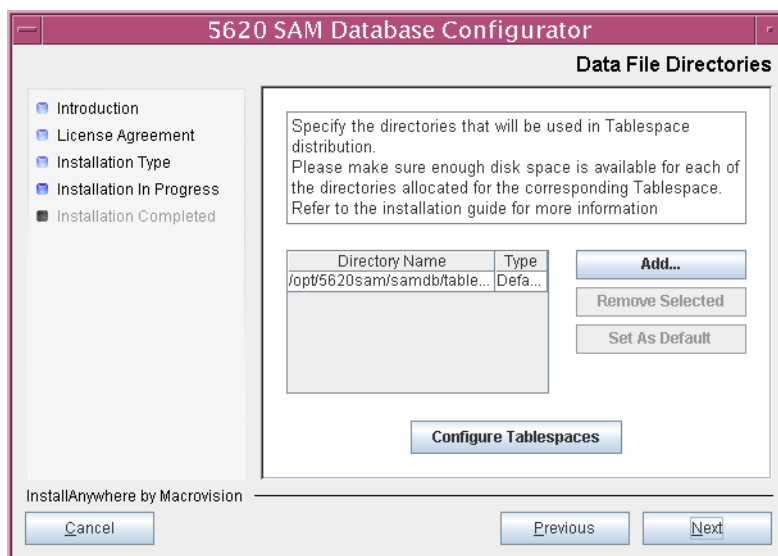
**Note** — The statistics data for the specified statistics types are permanently deleted from the 5620 SAM database.

Figure 4-18 Purge Statistics



- 34 If the panel in Figure 4-19 is displayed, the new database contains at least one tablespace that is not defined in the previous database and you must perform the following steps to specify the tablespace directories. Otherwise, go to step 37.
- i Click on the Add button shown in Figure 4-19. A file browser form opens.
  - ii Use the file browser form to choose a tablespace directory.
  - iii Repeat steps 34 i and ii to specify an additional tablespace directory, if required.

Figure 4-19 Data File Directories



- 35 Associate tablespaces with the directories specified in step 34.
- i Click on the Configure Tablespaces button. The tablespace configuration form opens, as shown in Figure 4-20.



**Note —** The lists of drives and tablespaces on the tablespace configuration form may differ from the lists shown in the figure below.

- ii Follow the instructions at the top of the form to associate tablespaces with the directories, as required.
- iii Click on the OK button. The tablespace configuration form closes and the Data File Directories panel in Figure 4-19 reappears.

Figure 4-20 Configure Tablespaces

Select one drive and one or more Tablespaces from the left side. Add those associations to the right side using the 'Add associations from the left' button.  
You can select at the same time on both TS tables at the left: Oracle Tablespaces and 5620 SAM Tablespaces

| Directory Name            | Type    |
|---------------------------|---------|
| /opt/5620sam/samdb/tables | Default |

**Oracle Tablespaces**

| Tablespace Name |
|-----------------|
|-----------------|

**5620 SAM Tablespaces**

| Tablespace Name       |
|-----------------------|
| CURRENT_DATA_STRUCT_1 |
| CURRENT_DATA_STRUCT_2 |
| CURRENT_DATA_STRUCT_3 |
| CURRENT_DATA_STRUCT_4 |
| SAM_RELATIONS_1       |
| SAM_RELATIONS_2       |
| SAM_SYSTEM_1          |
| SAM_SYSTEM_2          |
| SAM_SYSTEM_3          |
| SAM_SYSTEM_4          |
| STATS_CURRENT         |
| STATS_HISTORY         |
| STATS_POLICY          |
| SYSAUX                |
| SYSTEM                |
| TEMP                  |
| TMS_SYSTEM            |
| TMS_SYS_INDX          |
| UNDOTBS1              |
| USERS                 |

| Name                  | Drive                     |
|-----------------------|---------------------------|
| ALARMS                | /opt/5620sam/samdb/tables |
| ALARM_HISTORY         | /opt/5620sam/samdb/tables |
| CURRENT_DATA_STRUCT_1 | /opt/5620sam/samdb/tables |
| CURRENT_DATA_STRUCT_2 | /opt/5620sam/samdb/tables |
| CURRENT_DATA_STRUCT_3 | /opt/5620sam/samdb/tables |
| CURRENT_DATA_STRUCT_4 | /opt/5620sam/samdb/tables |
| INDX                  | /opt/5620sam/samdb/tables |
| SAM_RELATIONS_1       | /opt/5620sam/samdb/tables |
| SAM_RELATIONS_2       | /opt/5620sam/samdb/tables |
| SAM_SYSTEM_1          | /opt/5620sam/samdb/tables |
| SAM_SYSTEM_2          | /opt/5620sam/samdb/tables |
| SAM_SYSTEM_3          | /opt/5620sam/samdb/tables |
| SAM_SYSTEM_4          | /opt/5620sam/samdb/tables |
| STATS_CURRENT         | /opt/5620sam/samdb/tables |
| STATS_HISTORY         | /opt/5620sam/samdb/tables |
| STATS_POLICY          | /opt/5620sam/samdb/tables |
| SYSAUX                | /opt/5620sam/samdb/tables |
| SYSTEM                | /opt/5620sam/samdb/tables |
| TEMP                  | /opt/5620sam/samdb/tables |
| TMS_SYSTEM            | /opt/5620sam/samdb/tables |
| TMS_SYS_INDX          | /opt/5620sam/samdb/tables |
| UNDOTBS1              | /opt/5620sam/samdb/tables |
| USERS                 | /opt/5620sam/samdb/tables |

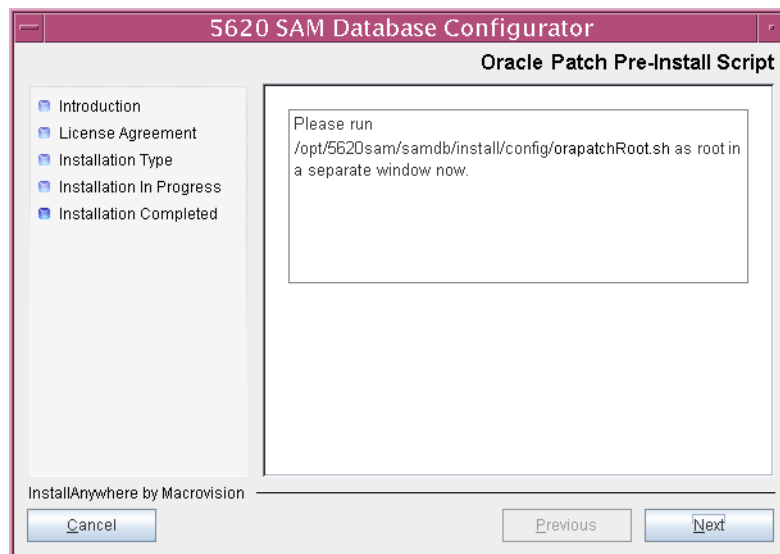
Add associations from the left  
Remove Selected Associations  
Set Default Associations  
Select All

OK Cancel

- 36 Click on the Next button.

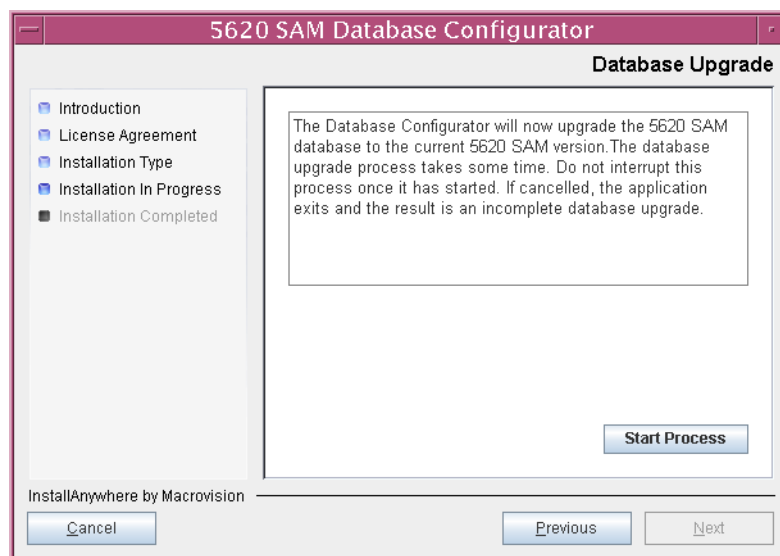
- 37 If you are prompted to run an Oracle patch pre-installation script, as shown in Figure 4-21, run the script in a separate console window as a user with root or root-equivalent privileges.

Figure 4-21 Oracle Patch Pre-install Script



- 38 When the script execution is complete, click on the Next button.
- 39 You are prompted to begin the database upgrade, as shown in Figure 4-22. A database upgrade can take one hour or more, depending on the tablespace configuration. Click on the Start Process button to begin the database upgrade.

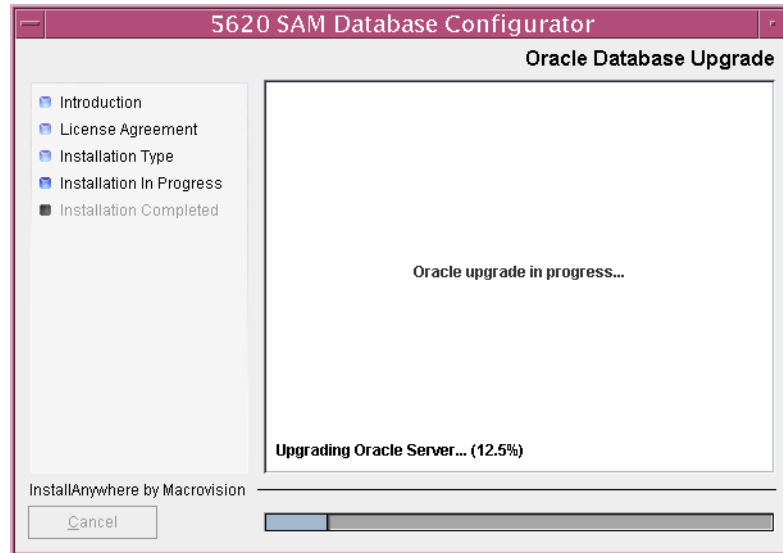
Figure 4-22 Database Upgrade





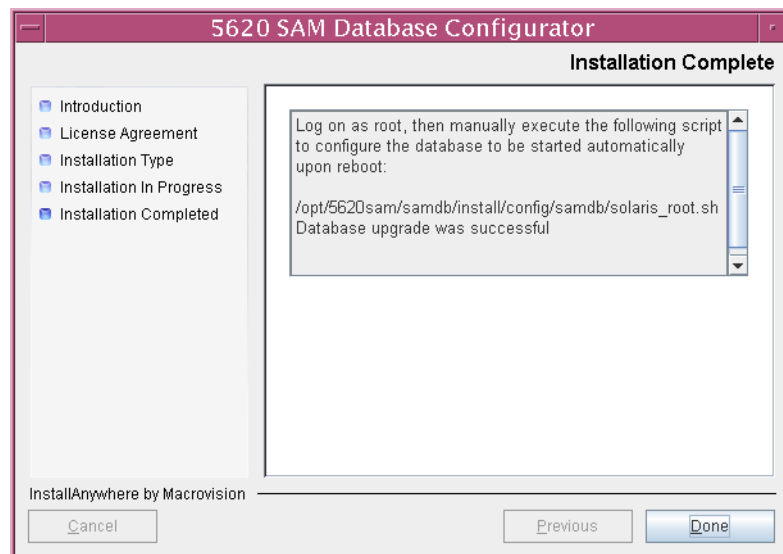
The next panel displays upgrade progress, as shown in Figure 4-23.

Figure 4-23 Oracle Database Upgrade



- 40 When the panel in Figure 4-24 is displayed, the 5620 SAM database upgrade is complete, but as shown in the panel text, you must run a script to enable automatic database startup.

Figure 4-24 Installation Complete



Perform the following steps to run the script described in the panel.

- i Open a separate console window as a user with root or root-equivalent privileges.
- ii Enter the following at the CLI prompt:

```
path/install/config/samdb/solaris_root.sh
```

where *path* is the 5620 SAM database installation location, typically /opt/5620sam/samdb

The script returns messages similar to the following:

```
re-creating link for /usr/local/lib/libiconv.so.2
```

```
re-creating link for /usr/local/lib/libpopt.so.0
```

```
re-creating link for /usr/local/lib/libintl.so.8
```

```
re-creating link for /usr/local/lib/libgcc_s.so.1
```

- iii When the script execution is complete, close the console window.
- 41 Click on the Done button to close the database installer.

The next section of the procedure describes the upgrade of the standalone 5620 SAM main server. A server upgrade requires root-equivalent privileges.

#### Upgrade server

- 42 Log into the server station as a user with root or root-equivalent privileges.
- 43 Open a console window.
- 44 Perform the following steps to ensure that no-one is logged in to the station as the samadmin user.

- i Enter the following at the CLI prompt:

```
who ↵
```

The active user sessions are listed.

- ii If the samadmin user is listed, close each samadmin user session. See the appropriate Solaris documentation for more information.
- 45 Place the new 5620 SAM software DVD-ROM in a DVD-ROM drive.
- 46 Navigate to the DVD-ROM drive.

47 Perform one of the following to open the 5620 SAM server installer.

a On a Sun SPARC station:

i Enter the following at the CLI prompt:

```
cd Solaris ↵
```

ii Enter the following at the CLI prompt:

```
./ServerInstall_SAM_8_0_revision.bin ↵
```

where

*revision* is the revision identifier, such as R1, R3, or another descriptor

b On a Sun X86-based station:

i Enter the following at the CLI prompt:

```
cd Solarisx86 ↵
```

ii Enter the following at the CLI prompt:

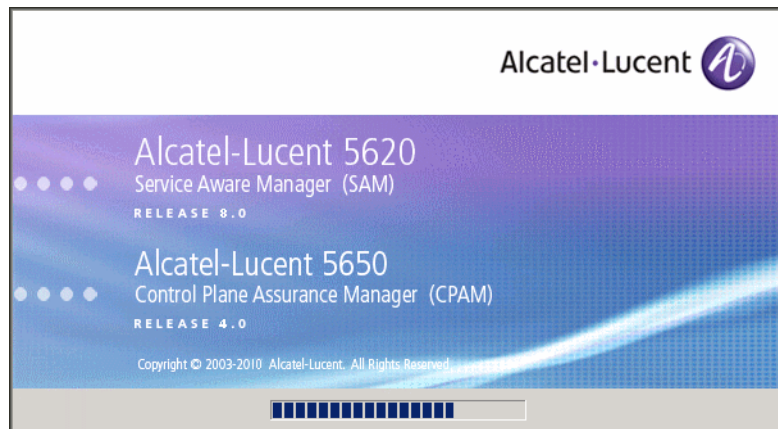
```
./ServerInstall_x86_SAM_8_0_revision.bin ↵
```

where

*revision* is the revision identifier, such as R1, R3, or another descriptor

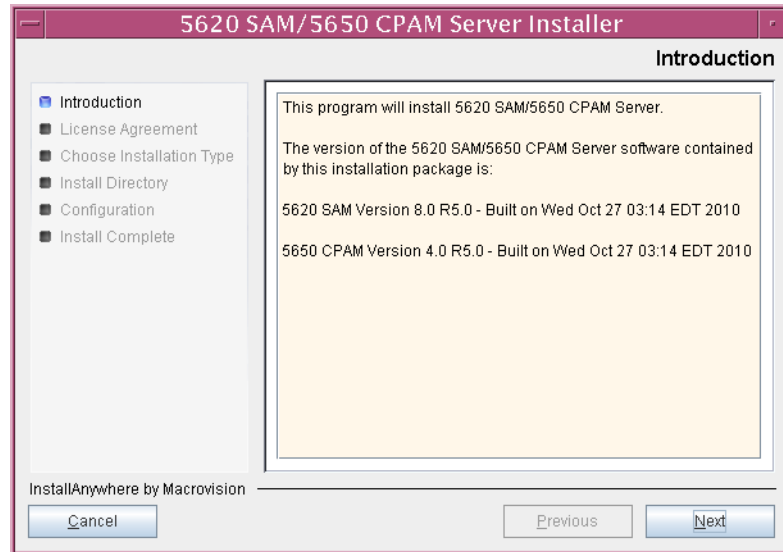
The splash screen shown in Figure 4-25 opens.

Figure 4-25 5620 SAM installer



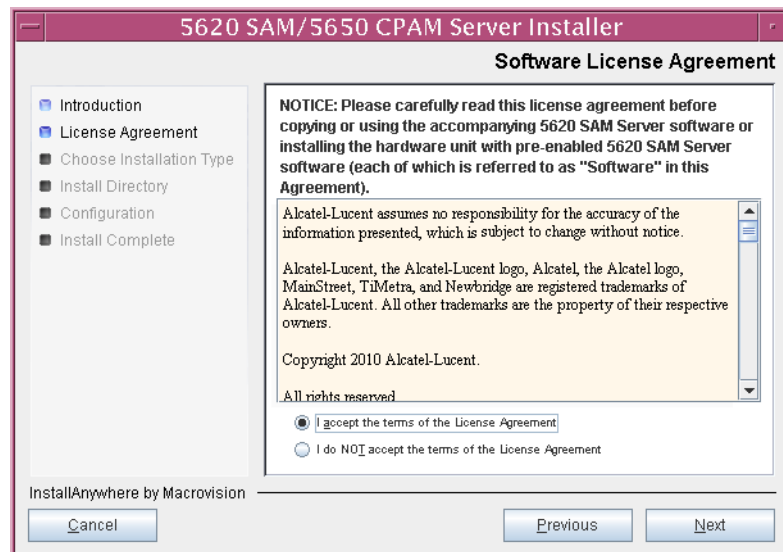
- 48 The 5620 SAM server installer opens, as shown in Figure 4-26. The left pane indicates upgrade progress. The right pane displays release information about the software. Click on the Next button.

Figure 4-26 Introduction



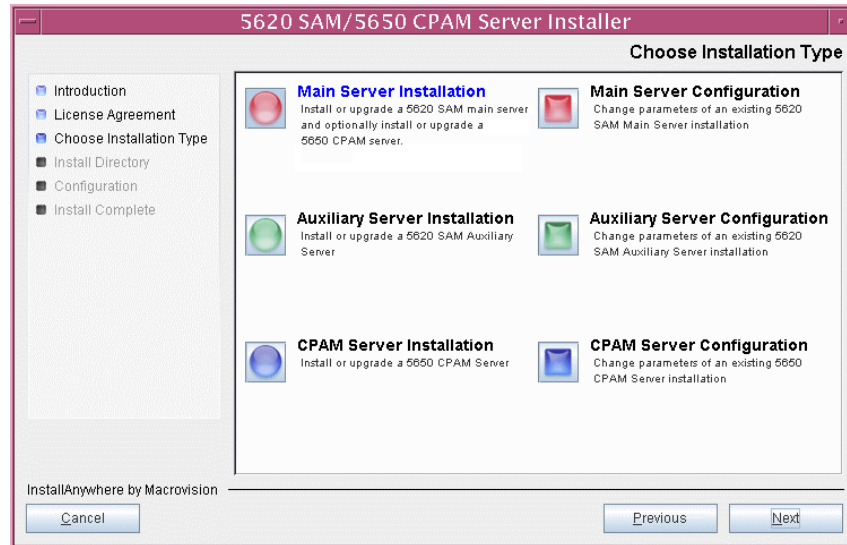
- 49 Review and accept the terms of the license agreement shown in Figure 4-27. Click on the Next button.

Figure 4-27 Software License Agreement



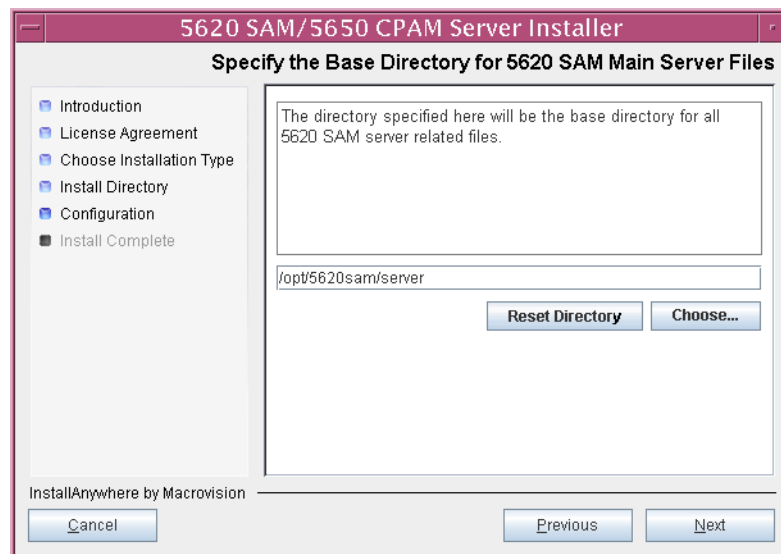
- 50 Select Main Server Installation, as shown in Figure 4-28. Click on the Next button.

Figure 4-28 Choose Installation Type



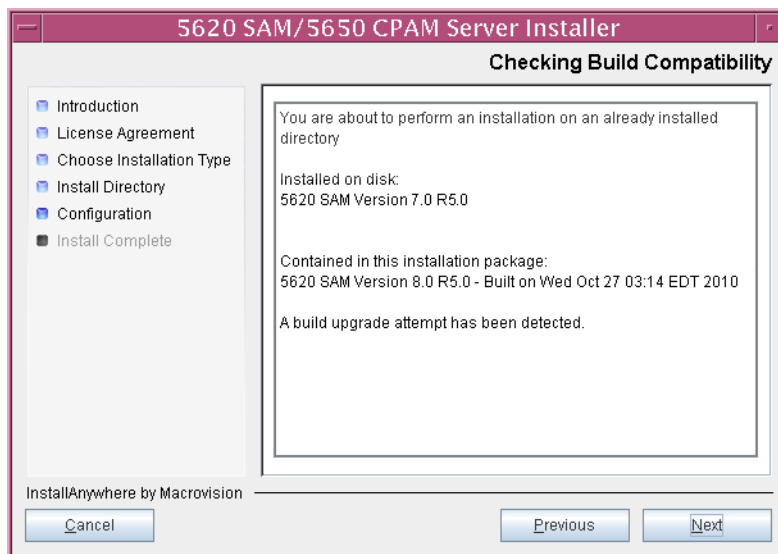
- 51 Specify the base directory in which the existing 5620 SAM main server software is installed (typically /opt/5620sam/server), as shown in Figure 4-29. Click on the Next button.

Figure 4-29 Specify the Base Directory for 5620 SAM Main Server Files



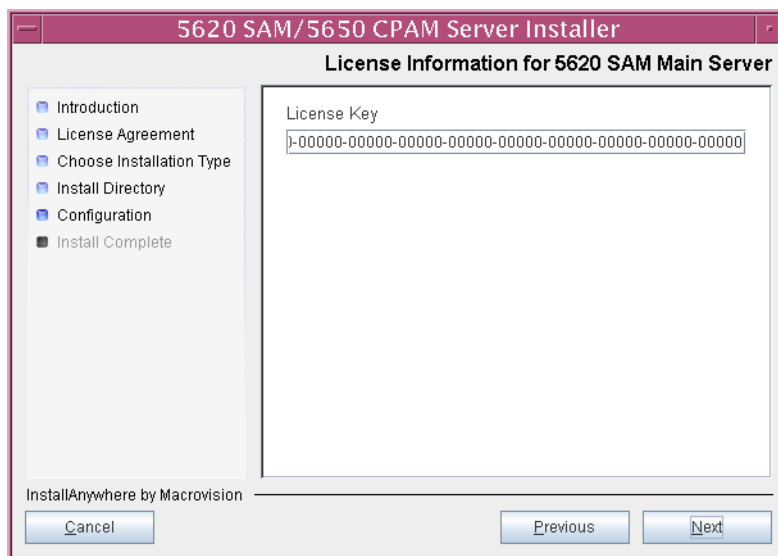
- 52 As shown in Figure 4-30, the installer indicates which release of 5620 SAM software is currently installed and the release to which it is to be upgraded. Verify the information. Click on the Next button.

Figure 4-30 Checking Build Compatibility



- 53 The 5620 SAM installer displays the License Key specified during the existing installation. Enter the License Key information for the new 5620 SAM release exactly as received from Alcatel-Lucent. Include the dashes in the key, as shown in Figure 4-31. Click on the Next button.

Figure 4-31 License Information for 5620 SAM Main Server



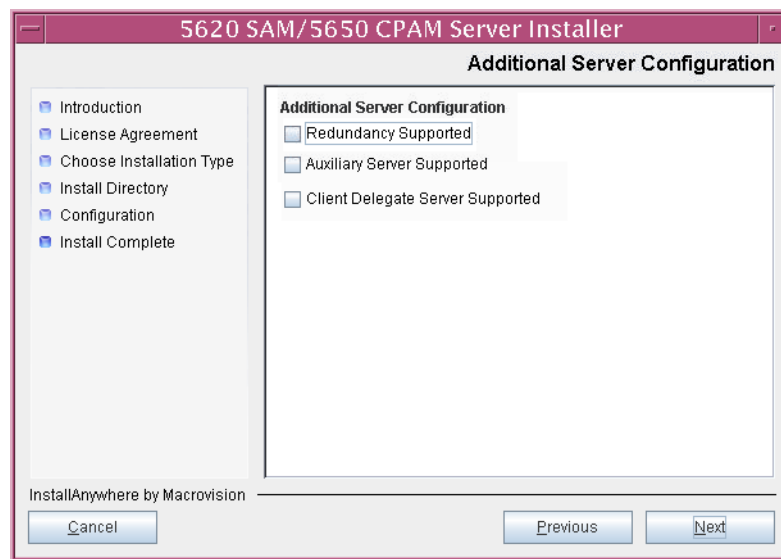
54 Configure the following parameters shown in Figure 4-32, then click on the Next button.

- Redundancy Supported
- Auxiliary Server Supported
- Client Delegate Server Supported



**Note** — You must leave the Redundancy Supported parameter unselected.

Figure 4-32 Additional Server Configuration



55 Configure the following parameters, shown in Figure 4-33, using the recorded values from the database upgrade, then click on the Next button.

- Database Server IP address
- Database Server Port (typically 1523)
- Database Instance Name (typically samdb)
- Database User Name (typically samuser)
- Database User Password
- Database Proxy Port (typically 9002)

Figure 4-33 Database Configuration

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window with the 'Database Configuration' tab selected. On the left is a navigation pane with options: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (selected), and Install Complete. The main area contains a text box with NAT instructions, followed by input fields for Database Server IP Address, Database Server Port (1523), Database Instance Name (samdb), Database User Name (samuser), Database User Password (masked with asterisks), and Database Proxy Port (9002). At the bottom are 'Cancel', 'Previous', and 'Next' buttons. The footer text reads 'InstallAnywhere by Macrovision'.



56 Depending on the existing configuration, the panel in Figure 4-34 is displayed. Configure the following parameters, if required, then click on the Next button:

- Online Database Backup Interval (hours) (typically 24)
- Online Backup Destination (typically /opt/5620sam/dbbackup)
- Number Of Backup Sets (typically 3)



**Note** — The Online Backup Destination is a path on the file system of the database station specified in step 55.

Figure 4-34 Online Database Backup

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window with the 'Online Database Backup' panel selected. The panel contains a text box with instructions: 'The database backup directory resides on the database workstation. Please ensure that the specified directory exists on the database workstation and it is writable.' Below this are three input fields: 'Online Backup Interval (Hours)' with a value of 24, 'Online Backup Destination' with a value of /opt/5620sam/dbbackup, and 'Number Of Backup Sets' with a value of 3. At the bottom left is a 'Cancel' button, and at the bottom right are 'Previous' and 'Next' buttons. The bottom of the window also displays 'InstallAnywhere by Macrovision'.

- 57 The panel in Figure 4-35 is displayed if you select “Auxiliary Server Supported” in step 54. Otherwise, go to step 59.

Perform the following steps to specify an auxiliary server, if required.

- i Configure the following parameters shown in Figure 4-35:
  - NAT (network address translation) Used  
Select this parameter only if NAT is to be used between the 5620 SAM main and auxiliary servers.
  - Private IP (accessible only by this server)  
You must configure this parameter if you select the NAT (network address translation) Used parameter.
  - Public IP (accessible to auxiliary)
  - Server Port (typically 12800)
  - Enable Stats Collection on Auxiliary Servers
  - Enable Call Trace Collection on Auxiliary Servers



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 4-35.

Figure 4-35 Main Server Configuration for Auxiliary Servers

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window. The left sidebar contains a list of steps: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration, and Install Complete. The 'Configuration' step is currently selected. The main panel is titled 'Main Server Configuration for Auxiliary Servers'. It contains a text box with instructions: 'Enter the the network interface information that this 5620 SAM main server requires to communicate with the 5620 SAM auxiliary servers. At least one service type checkbox must be selected.' Below this, there are several configuration options:
 

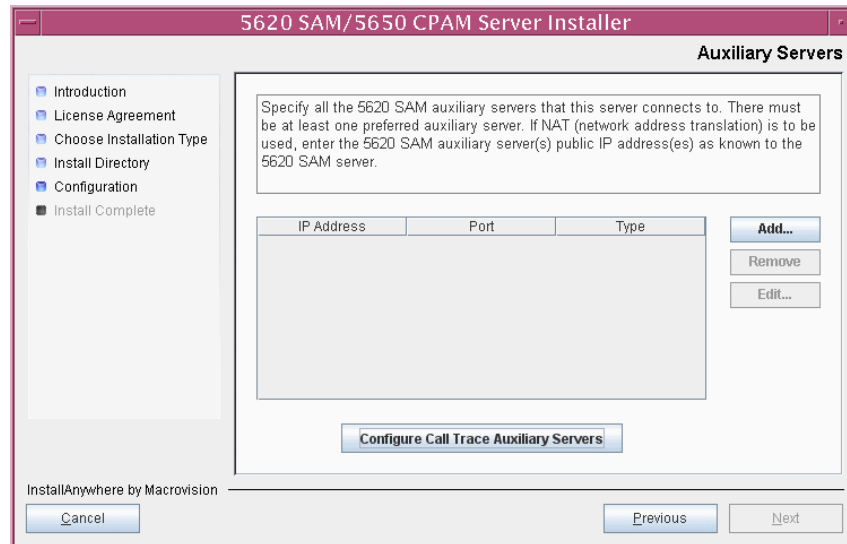
- ☒ NAT (network address translation) Used
- Private IP (accessible only by this server): 192.168.200.111 (dropdown menu)
- Public IP (accessible to auxiliary): (empty text box)
- Server Port: 12800 (text box)
- ☐ Enable Stats Collection on Auxiliary Servers
- ☒ Enable Call Trace Collection on Auxiliary Servers

 At the bottom, there are 'Cancel', 'Previous', and 'Next' buttons. The text 'InstallAnywhere by Macrovision' is visible in the bottom left corner.

- ii Click on the Next button.

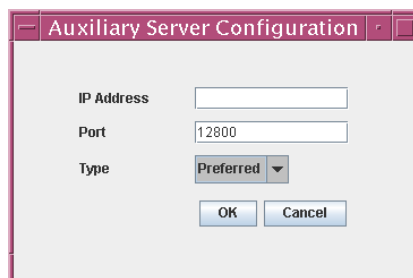
- iii Click on the Add button shown in Figure 4-36 to specify an auxiliary server. The form shown in Figure 4-37 opens.

Figure 4-36 Auxiliary Servers



**Note —** To minimize network latency between this main server and the Preferred auxiliary server that you specify in this step, specify an auxiliary server in the local network rather than an auxiliary server that is geographically remote.

Figure 4-37 Auxiliary Server Configuration



- iv Configure the following parameters:
- IP Address
  - Port (typically 12800)
  - Type (Preferred or Reserved)
- v Click on the OK button to save the information and close the form.
- vi Repeat steps 57 iii to v to specify an additional auxiliary server, if required.

- vii If “Enable Call Trace Collection on Auxiliary Servers” is selected in step 57 i, click on the “Configure Call Trace Auxiliary Servers” button shown in Figure 4-36. Otherwise, go to step 58.
- viii The form shown in Figure 4-38 opens. Select a preferred auxiliary server in the upper left panel and the associated reserved auxiliary server in the lower left panel, and click on the “Make Pair from Selected” button. The auxiliary servers move to the list on the right side of the form.

Figure 4-38 Configure Call Trace Auxiliary Servers

Select one preferred server and one reserved server from the left side. Add those servers to the right side using the 'Make Pair from Selected' button.

| Preferred Auxiliary Servers |       |
|-----------------------------|-------|
| IP Address                  | Port  |
| 10.1.1.1                    | 12800 |
| 10.1.1.2                    | 12800 |
| 10.1.1.3                    | 12800 |

| Reserved Auxiliary Servers |       |
|----------------------------|-------|
| IP Address                 | Port  |
| 10.2.2.1                   | 12800 |
| 10.2.2.2                   | 12801 |
| 10.2.2.3                   | 12800 |

| Server Pairs        |                    |
|---------------------|--------------------|
| Preferred Server IP | Reserved Server IP |

Make Pair from Selected      Remove Selected Pair      OK      Cancel

- ix Repeat step 57 viii to configure another call-trace auxiliary server pair, if required.
- 58 Click on the Next button.

59 Perform the following steps.

- i Configure the following parameters shown in Figure 4-39:
  - Server Domain Name (typically 5620sam)  
This is a value that uniquely identifies the 5620 SAM server cluster.
  - Use Hostname for Communication  
Select this parameter if the main server is to use multiple interfaces for GUI and OSS client communication.

Figure 4-39 Main Server Configuration for Clients

**5620 SAM/5650 CPAM Server Installer**

**Main Server Configuration for Clients**

Enter the network interface information that the GUI and OSS clients require to communicate with this 5620 SAM main server.

If multiple addresses are to be used for communication with GUI clients, OSS clients, and auxiliary servers, a hostname must be provided for the Public Hostname field.

Server Domain Name

☐ Use Hostname for Communication (recommended if NAT is used)

☒ NAT (network address translation) Used

Private IP (accessible only by this server)

Public IP (accessible to clients)

EJB JNDI Server port

EJB JMS Server port

☐ Enable 5670 RAM

☐ Enable 3GPP OSS Interface

InstallAnywhere by Macrovision

- ii If you select Use Hostname for Communication, go to step 59 vi.
- iii Configure the following parameters:
  - NAT (network address translation) Used
  - Private IP (accessible only by this server)
  - Public IP (accessible to clients)
  - EJB JNDI Server port (typically 1099)
  - EJB JMS Server port (typically 8093)
  - Enable 5670 RAM
  - Enable 3GPP OSS Interface



**Note —** The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 4-39.

- iv Click on the Next button.

- v Go to step 61.
- vi Configure the following parameters shown in Figure 4-40:
  - NAT (network address translation) Used
  - Private IP (accessible only by this server)
  - Public Hostname
  - EJB JNDI Server port (typically 1099)
  - EJB JMS Server port (typically 8093)
  - Enable 5670 RAM
  - Enable 3GPP OSS Interface



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 4-40.

Figure 4-40 Main Server Configuration for Clients

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window. The title bar is purple. The main window has a sidebar on the left with a list of steps: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (selected), and Install Complete. The main area is titled 'Main Server Configuration for Clients'. It contains the following fields and options:

- Text box: 'Enter the network interface information that the GUI and OSS clients require to communicate with this 5620 SAM main server. If multiple addresses are to be used for communication with GUI clients, OSS clients, and auxiliary servers, a hostname must be provided for the Public Hostname field.'
- Text box: 'Server Domain Name' with value '5620sam'.
- Checkbox: 'Use Hostname for Communication (recommended if NAT is used)' (checked).
- Checkbox: 'NAT (network address translation) Used' (checked).
- Text box: 'Private IP (accessible only by this server)' with value '192.168.200.111' and a dropdown arrow.
- Text box: 'Public Hostname' (empty).
- Text box: 'EJB JNDI Server port' with value '1099'.
- Text box: 'EJB JMS Server port' with value '8093'.
- Checkbox: 'Enable 5670 RAM' (unchecked).
- Checkbox: 'Enable 3GPP OSS Interface' (unchecked).

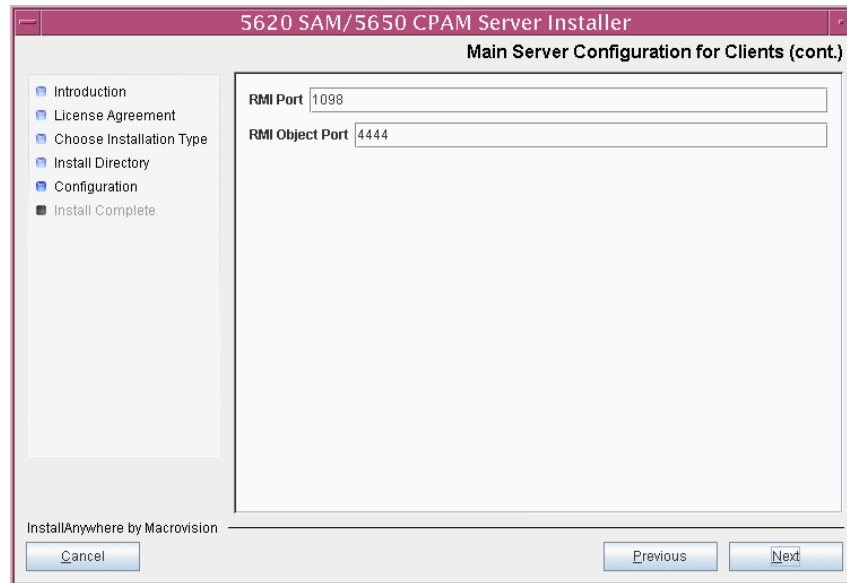
At the bottom, there is a footer 'InstallAnywhere by Macrovision' and three buttons: 'Cancel', 'Previous', and 'Next'.

- vii Click on the Next button.

60 Configure the following parameters shown in Figure 4-41, then click on the Next button:

- RMI Port (typically 1098)
- RMI Object Port (typically 4444)

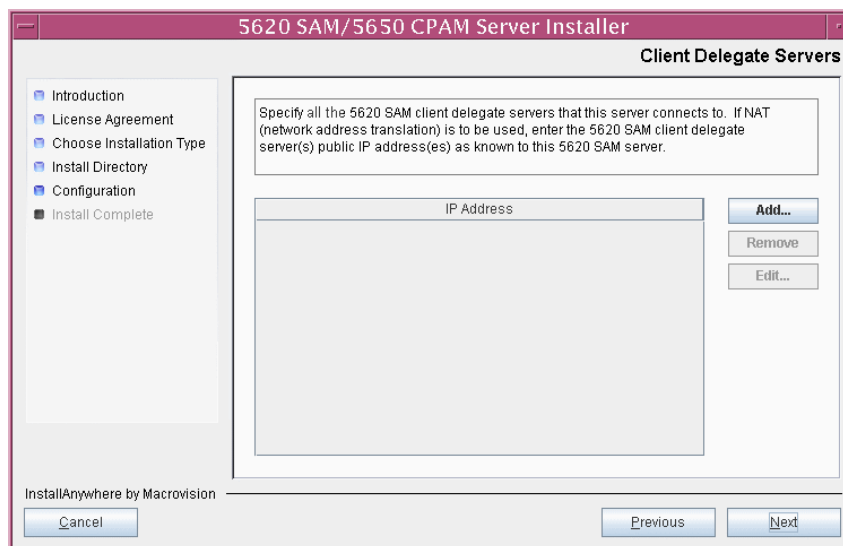
Figure 4-41 Main Server Configuration for Clients (cont.)



- 61 The panel in Figure 4-42 is displayed if you select “Client Delegate Server Supported” in step 54. Otherwise, go to step 62.

Click on the Add button to specify the client delegate server IP addresses, as required. If NAT is used between the 5620 SAM server and client delegate servers, specify the public IP address. Click on the Next button.

Figure 4-42 Client Delegate Servers





62 Perform one of the following to specify where the 5620 SAM user documentation is to be stored.

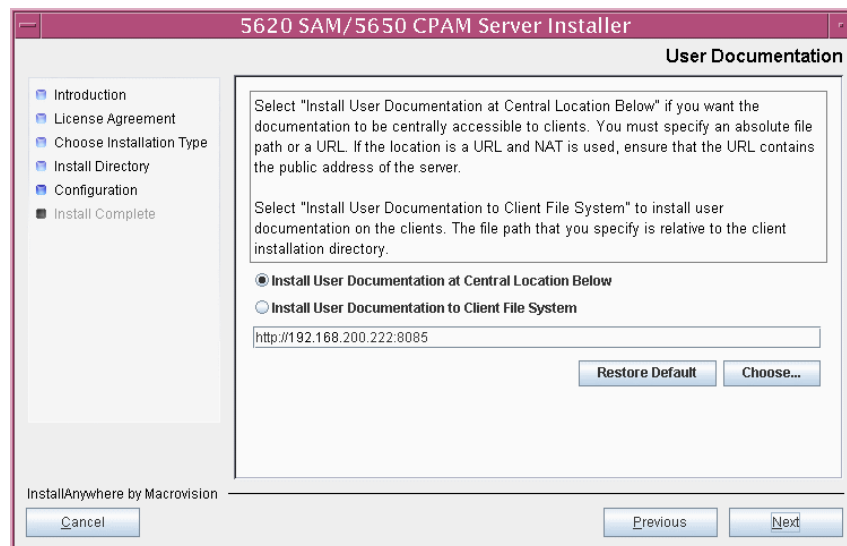
- a To store the documentation in a central location that is available to all clients, perform the following steps.
  - i Select the “Install User Documentation at Central Location Below” parameter, as shown in Figure 4-43.
  - ii To accept the default user documentation location that is displayed, go to step 63.



**Note —** If NAT is used between the 5620 SAM server and clients, you must update the default location using the public IP address of the server, or the documentation is not accessible to clients.

- iii Specify a location for the 5620 SAM user documentation in the field below the parameters.
- iv Copy the contents of the User\_Documentation directory on the new 5620 SAM software DVD-ROM to the location specified in step iii.
- v Click on the Next button. A dialog box appears.
- vi Click on the OK button.

Figure 4-43 User Documentation



- b To store a copy of the documentation on the client file system, perform the following steps.
  - i Select the “Install User Documentation to Client File System” parameter shown in Figure 4-43.
  - ii Specify a file path relative to the 5620 SAM client installation directory. The path must not contain a leading slash.

For example, if the installation directory is /opt/5620sam/client and you specify Documents as the location, the documentation is installed in the following directory:

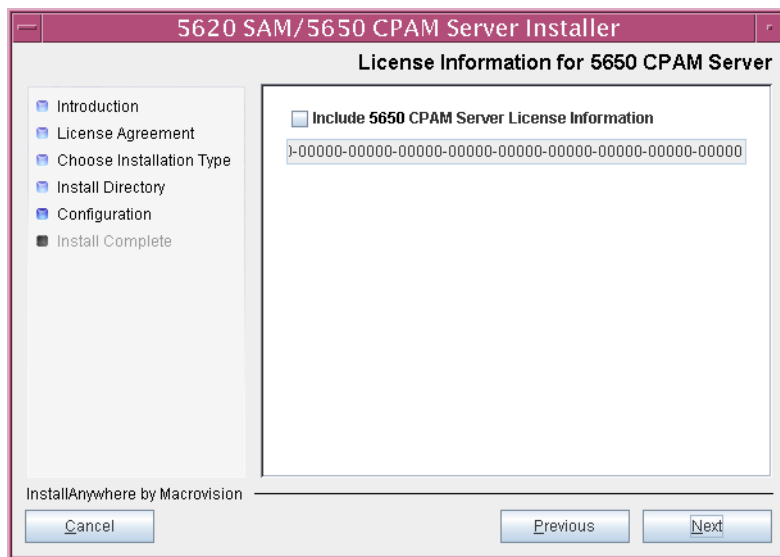
/opt/5620sam/client/Documents



**Note** — The 5620 SAM client uninstaller cannot remove the documentation unless it is installed below the nms directory in the 5620 SAM client installation directory, for example, /opt/5620sam/client/nms/Documents.

- 63 Click on the Next button.
- 64 Specify whether the 5620 SAM configuration includes a 5650 CPAM server, as shown in Figure 4-44. If it does, enter the 5650 CPAM license key provided by Alcatel-Lucent. Include the dashes in the key. Click on the Next button.

Figure 4-44 License Information for 5650 CPAM Server



65 Configure the following parameters shown in Figure 4-45, then click on the Next button:

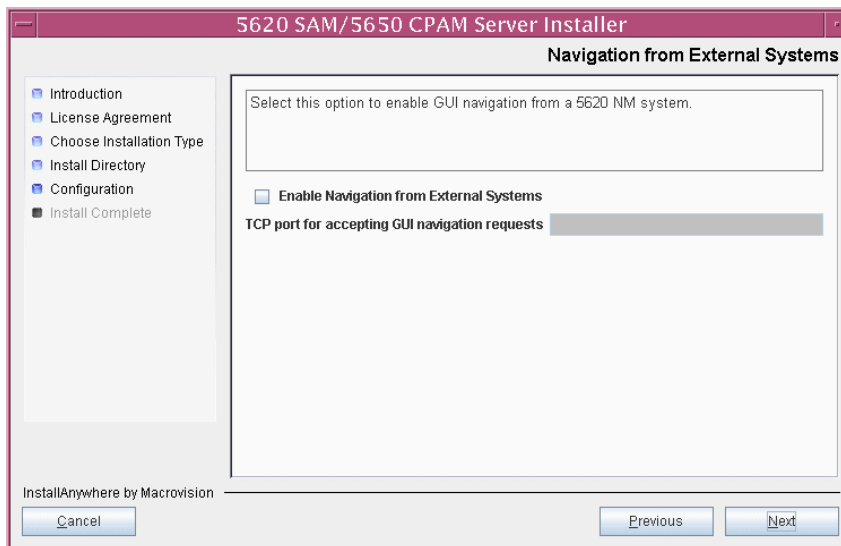
- NAT (network address translation) Used  
Select this parameter only if NAT is to be used between the 5620 SAM main server and the managed network.
- SNMP Trap Receiving IPv4 Address
- SNMP Trap Receiving IPv6 Address
- SNMP Trap Receiving Port (typically 162)
- Trap Log Id (typically 98)

Figure 4-45 SNMP Configuration

The screenshot shows the 'SNMP Configuration' window of the '5620 SAM/5650 CPAM Server Installer'. The window has a title bar with the text '5620 SAM/5650 CPAM Server Installer' and a subtitle 'SNMP Configuration'. On the left, there is a navigation pane with the following items: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (which is selected), and Install Complete. The main area contains a text box with the instruction: 'If NAT (network address translation) is to be used, enter the 5620 SAM main server's public IP address as known to the devices within the managed network.' Below this, there are two checkboxes: 'NAT (network address translation) Used' and 'IPv6 Address Used', both of which are currently unchecked. Below the checkboxes, there are four input fields: 'SNMP Trap Receiving IPv4 Address' with a dropdown menu showing '192.168.200.122', 'SNMP Trap Receiving IPv6 Address' (empty), 'SNMP Trap Receiving Port' with a text box containing '162', and 'Trap Log Id' with a text box containing '98'. At the bottom left, it says 'InstallAnywhere by Macrovision' and there is a 'Cancel' button. At the bottom right, there are 'Previous' and 'Next' buttons.

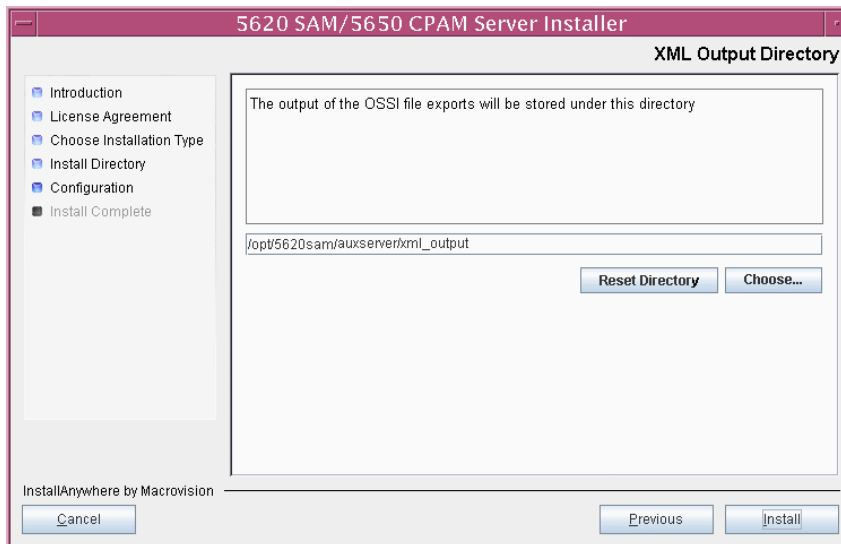
- 66 If you require 5620 SAM client navigation from a 5620 NM system, select the “Enable Navigation from External Systems” parameter shown in Figure 4-46 and specify the TCP port that the client is to use for accepting navigation requests. Click on the Next button.

Figure 4-46 Navigation from External Systems



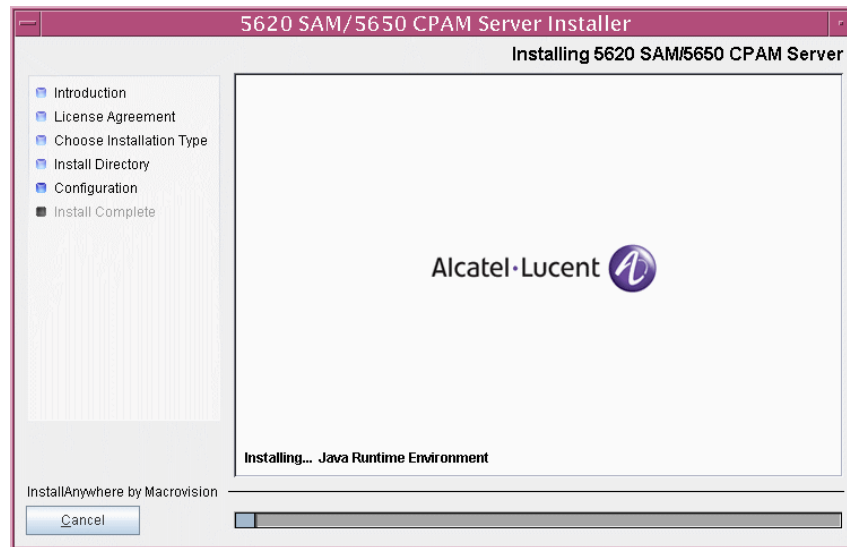
- 67 Specify an OSS XML output location (typically /opt/5620sam/server/xml\_output), as shown in Figure 4-47. Click on the Install button to begin the server upgrade.

Figure 4-47 XML Output Directory



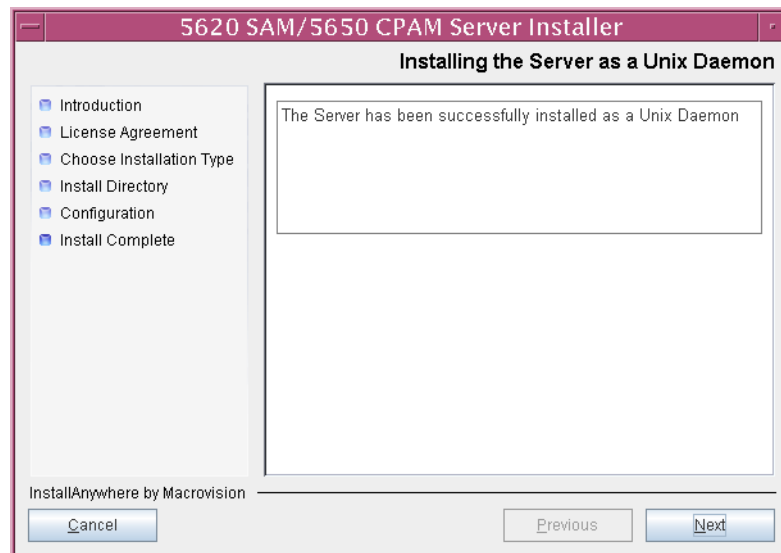
The next panel displays upgrade progress, as shown in Figure 4-48.

Figure 4-48 Installing 5620 SAM/5650 CPAM Server



- 68 The 5620 SAM server is installed as a UNIX daemon, as shown in Figure 4-49. Click on the Next button.

Figure 4-49 Installing the Server as a Unix Daemon

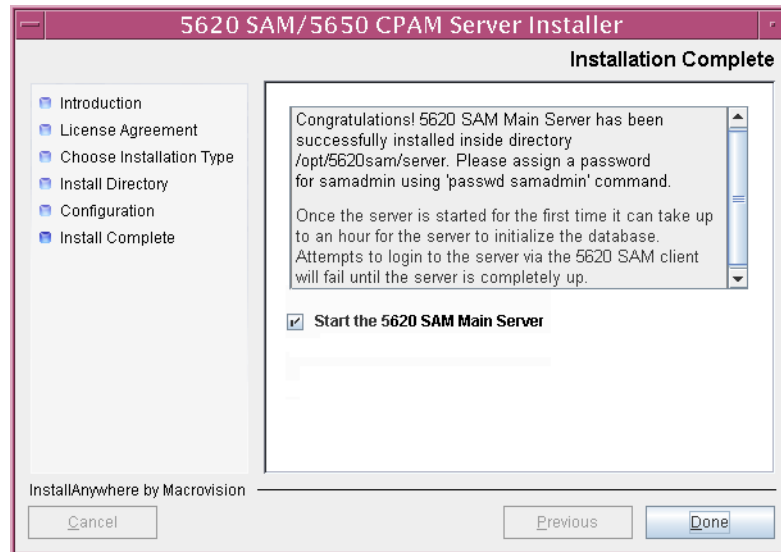


- 69 When the server installation is complete, as shown in Figure 4-50, configure the “Start the 5620 SAM Main Server” parameter to specify whether you want the server to start immediately after the installation.



**Caution** — If the 3GPP OSS interface is enabled in step 59, ensure that the “Start the 5620 SAM Main Server” parameter is not selected.

Figure 4-50 Installation Complete



### Configure communication security for main server

- 70 If other components in the 5620 SAM system use SSL or HTTPS to communicate with the main server, you must reconfigure SSL, and HTTPS, if required, on the main server interfaces, before the main server can communicate with the other components. The interfaces that may require reconfiguration may include the following:

- the EJB interface used for the single-user 5620 SAM GUI clients and client delegate servers
- the JMS interface used for the single-user 5620 SAM GUI clients, OSS clients, client delegate servers and auxiliary servers
- the HTTP interface used for the single-user 5620 SAM GUI clients and client delegate servers
- the HTTP interface used for the 5620 SAM OSS clients



**Note** — A 5620 SAM software upgrade removes an SSL or HTTPS configuration on a 5620 SAM component. If a component uses SSL or HTTPS before an upgrade, you must enable SSL, and HTTPS, if required, after the upgrade. See the *5620 SAM User Guide* for information about configuring SSL and HTTPS for 5620 SAM components.

- 71 View the panel text to see whether it states that you must assign a password to samadmin, as shown in Figure 4-50. This information is required in step 73.
- 72 Click on the Done button to close the server installer. If you specified that the server is to start after installation, the server starts. Initial server startup can take twenty minutes or more.
- 73 If you are upgrading from 5620 SAM Release 6.0, the installer creates a user account called samadmin for 5620 SAM system administration.

If you must assign a password to samadmin, as determined in step 71, perform the following steps.

- i Enter the following at the CLI prompt:

```
passwd samadmin
```

The following prompt is displayed:

```
New Password:
```

- ii Enter the new password and press ↵.

The following prompt is displayed:

```
Confirm New Password:
```

- iii Enter the new password again and press ↵. The password is changed.

- iv Record the new password and store it in a secure location.

- 74 If the 3GPP OSS interface is enabled in step 59, perform the following steps.

- i Open the *path*/nms/cnbi/home/config/cnbi.properties file using a plain-text editor

where *path* is the 5620 SAM main server installation location, typically *opt/5620sam/server*

- ii Locate the following line:

```
CNBI.SAMO.USER=
```

- iii Edit the line to read:

```
CNBI.SAMO.USER=3GPP_OSS_user_name
```

where *3GPP\_OSS\_user\_name* is the user name that OSS applications must send in requests to the interface

- iv Locate the following line:

```
CNBI.SAMO.PASSWORD=
```

- v Edit the line to read:

```
CNBI.SAMO.PASSWORD=3GPP_OSS_password
```

where *3GPP\_OSS\_password* is the MD5-encrypted user password that OSS applications must send in requests to the interface

- 75 If you specified that the server is to start immediately after installation, perform the following steps to verify that the 5620 SAM server is started.

- i Enter the following at the CLI prompt to switch to the samadmin user:

```
su - samadmin ↵
```

- ii Enter the following at the CLI prompt:

```
bash$ path/nms/bin/nmsserver.bash -s nms_status ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

The command returns server status information.

If the main server is not completely started, the first line of status information is the following:

```
Main Server is not ready...
```

The 5620 SAM server is completely started when the command returns the following line of output:

```
-- SAM Server is UP
```

- iii If the command output indicates that the server is not completely started, wait five minutes and enter the command again to check the output.

- 76 If you specified not to start the server immediately after the installation, perform the following steps to start the 5620 SAM main server manually.

- i Log in to the main server station as the samadmin user.

- ii Enter the following at the CLI prompt to change to the server binary directory:

```
bash$ cd path/nms/bin ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

- iii Enter the following at the CLI prompt to start the 5620 SAM server software:

```
bash$./nmsserver.bash start ↵
```

- iv Enter the following at the CLI prompt:

```
bash$ path/nms/bin/nmsserver.bash -s nms_status ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

The command returns server status information.

If the main server is not completely started, the first line of status information is the following:

```
Main Server is not ready...
```

The 5620 SAM server is completely started when the command returns the following line of output:



```
-- SAM Server is UP
```

- v If the command output indicates that the server is not completely started, wait five minutes and enter the command again to check the output.

77 Close the console window.

### Upgrade or install 5620 SAM client

78 Perform one of the following to upgrade or install the 5620 SAM client software on a Solaris station, if required.



**Note —** Each procedures listed in this step includes a step that starts the 5620 SAM client. Do not perform the step that starts the 5620 SAM client; the 5620 SAM client is not to be started at this time.

- a Perform Procedure 3-2 or 3-3 to install a single-user client.
- b Perform Procedure 3-4 to install a client delegate server.
- c Perform Procedure 4-3 to upgrade a single-user client.
- d Perform Procedure 4-4 to upgrade a client delegate server.

79 Perform one of the following to upgrade or install the 5620 SAM client software on a Windows station, if required.



**Note —** Each procedures listed in this step includes a step that starts the 5620 SAM client. Do not perform the step that starts the 5620 SAM client; the 5620 SAM client is not to be started at this time.

- a Perform Procedure 2-3 or 2-4 to install a single-user client.
- b Perform Procedure 2-9 to upgrade a single-user client.

80 If the 3GPP OSS interface is enabled in step 59, perform the following steps.

- i Log in to a 5620 SAM GUI client as the admin user.
- ii Create a user account for 3GPP OSS interface access. Observe the following when you create the account:
  - The user name must be the user name specified in step 74.
  - The password must be the password specified in step 74.
  - The user account requires full permissions on the fm and oss packages.

See the *5620 SAM User Guide* for information about creating 5620 SAM user accounts.

### Perform routing policy migration

- 81 If you are upgrading from 5620 SAM Release 6.0 or 6.1, perform a routing policy migration using Procedure 1-1. See “Routing policy migration” in Chapter 1 for more information.
- 

## Procedure 4-3 To upgrade a 5620 SAM single-user client on Solaris

---

Perform this procedure to upgrade the 5620 SAM single-user client software on a Solaris station.

A 5620 SAM client software upgrade happens automatically when the client and the 5620 SAM main server software releases differ.



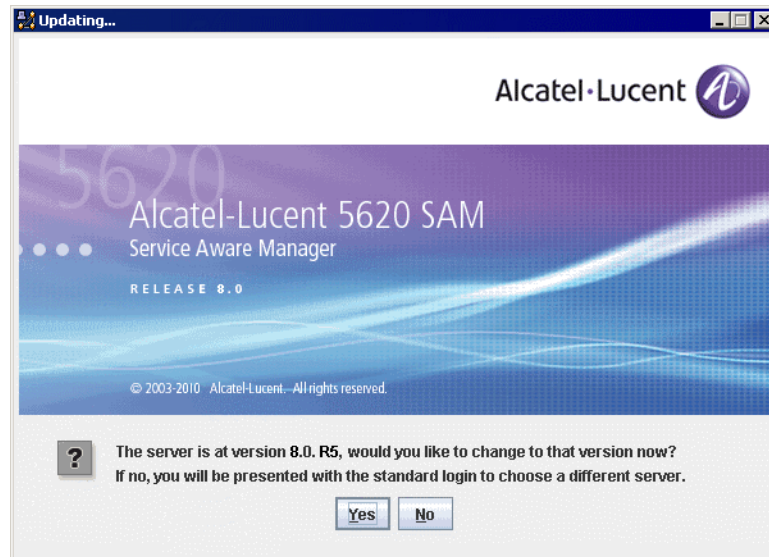
**Note 1** — The 5620 SAM main server to which the 5620 SAM single-user client connects must be upgraded and operational before you can upgrade the client.

**Note 2** — The user that upgrades the 5620 SAM client software must be the user that installed the client software.

- 1 Close the 5620 SAM single-user client if it is running.
  - i Choose Application→Exit from the 5620 SAM main menu. A dialog box appears.
  - ii Click on the Yes button. The 5620 SAM single-user client closes.
- 2 Perform one of the following.
  - a Double-click on the 5620 SAM Client App desktop icon.
  - b Use a web browser on the client station. Perform the following steps.
    - i Use the browser to open the following page on the 5620 SAM main server:  
  
<http://server:8085/client>  
  
where *server* is the IP address or hostname of the 5620 SAM main server
    - ii Click on the “Uninstall 5620 SAM Client” link.

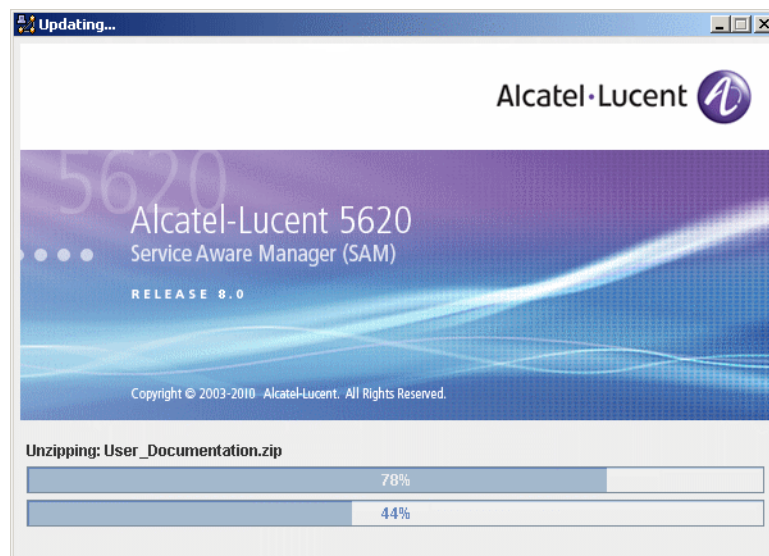
The 5620 SAM auto-client update utility opens, detects the new client software on the 5620 SAM main server, and displays the panel shown in Figure 4-51.

Figure 4-51 Upgrade prompt



- 3 Click on the Yes button to begin the 5620 SAM client software upgrade. As shown in Figure 4-52, the next panel uses separate bars to indicate the overall and current task progress.

Figure 4-52 Installation progress



When the upgrade is complete, the auto-client update utility closes and the 5620 SAM client login form is displayed.

- 4 Log in to the 5620 SAM client GUI.

---

#### Procedure 4-4 To upgrade a 5620 SAM client delegate server

---

Perform this procedure to upgrade a 5620 SAM client delegate server. A client delegate server supports multiple client GUI sessions using display redirection.

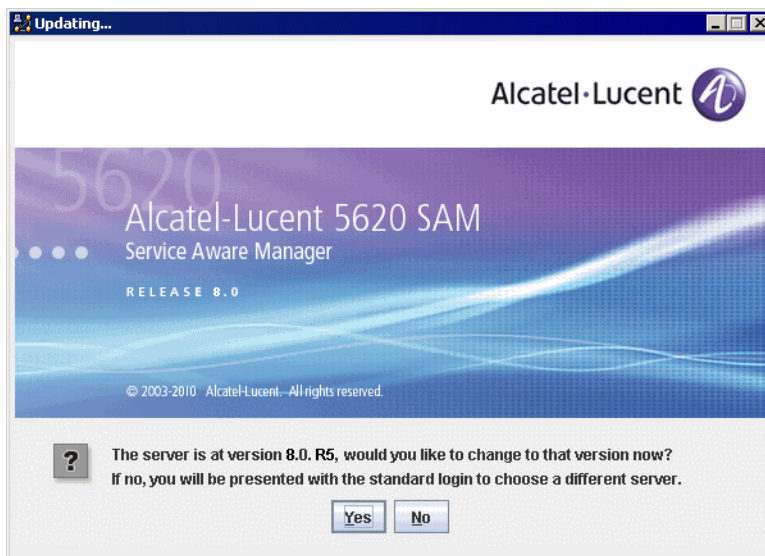


**Note 1** — You require root or root-equivalent user privileges on the client delegate server station to perform this procedure.

**Note 2** — The 5620 SAM main server to which the 5620 SAM GUI clients connect must be upgraded and operational before you can upgrade the client delegate server.

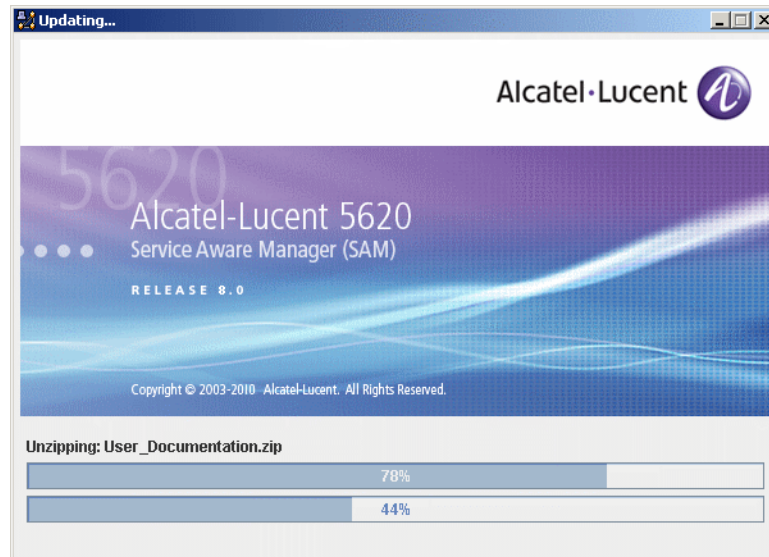
- 1 Close each open 5620 SAM client GUI session that the client delegate server is currently hosting. Perform the following steps on each station that has an open session through the client delegate server.
  - i Choose Application→Exit from the 5620 SAM main menu. A dialog box appears.
  - ii Click on the Yes button. The 5620 SAM client closes.
- 2 Double-click on the 5620 SAM Client App desktop icon. The 5620 SAM auto-client update utility opens, detects the new client delegate server software on the 5620 SAM main server, and displays the panel shown in Figure 4-51.

Figure 4-53 Upgrade prompt



- 3 Click on the Yes button to begin the upgrade. As shown in Figure 4-52, the next panel uses separate bars to indicate the overall and current task progress.

Figure 4-54 Installation progress



When the upgrade is complete, the auto-client update utility closes and the 5620 SAM client login form is displayed.

- 4 Log in to the 5620 SAM client GUI.
- 5 If you have trouble opening the GUI, see the *5620 SAM Troubleshooting Guide*.

## 4.6 Workflow for redundant 5620 SAM upgrade on Solaris



**Note** — A redundant 5620 SAM system upgrade involves a network-management outage and must be performed only during a scheduled maintenance period of sufficient duration for the upgrade.

The following assumptions are made regarding the 5620 SAM redundant upgrade:

- The four 5620 SAM application components (primary server, standby server, primary database, and standby database) are operational.
- Each database station is to be associated with the same database instance name after the upgrade as before the upgrade.
- 5620 SAM down time is to be kept to a minimum.
- No 5620 SAM-related hardware modifications occur during the upgrade.

If these assumptions do not align with the conditions under which the redundant upgrade is to be performed, contact Alcatel-Lucent technical support before you begin the redundant upgrade.

The following is the sequence of high-level actions required to upgrade a 5620 SAM redundant 5620 SAM system on Solaris. A section heading in quotation marks is a reference to a section in Procedure 4-5.

- 1 Perform the pre-upgrade tasks. See Procedure 4-1 for more information.
- 2 Open at least one 5620 SAM client to monitor the network before the first server and database are upgraded.
- 3 Back up the primary database. See [“Back up primary database”](#) for more information.
- 4 Align the primary and standby 5620 SAM database designations with the original 5620 SAM main server configuration, if automatic database realignment is not in effect. See [“Align database roles with 5620 SAM configuration”](#) for more information.
- 5 Stop the standby main server. See [“Stop standby main server”](#) for more information.
- 6 Disable the standby 5620 SAM main server startup daemon. See [“Disable standby server daemon”](#) for more information.
- 7 If the 5620 SAM deployment contains auxiliary servers, stop the preferred and reserved auxiliary servers of the standby main server. See [“Stop standby auxiliary servers”](#) for more information.
- 8 Disable database redundancy functionality on the primary 5620 SAM main server. See [“Disable redundancy on primary main server”](#) for more information.
- 9 Upgrade the original standby database. This database becomes the new primary database. See [“Upgrade standby database”](#) for more information.
- 10 Upgrade the original standby main server to become the new primary server. See [“Upgrade original standby main server”](#) for more information.
- 11 If the 5620 SAM deployment contains auxiliary servers, upgrade the preferred and reserved auxiliary servers of the original standby main server. See Procedure 4-6 for more information.
- 12 Stop the original primary 5620 SAM main server. See [“Stop original primary main server”](#) for more information.



**Note —** This is the beginning of the network management outage.

- 13 Disable the original primary 5620 SAM server startup daemon. See [“Disable original primary server daemon”](#) for more information.
- 14 Stop the original primary database. See [“Stop original primary database”](#) for more information.

- 15 Disable the original primary 5620 SAM database startup daemons. See [“Disable original primary database daemons”](#) for more information.
- 16 If the 5620 SAM deployment contains auxiliary servers, stop the preferred and reserved auxiliary servers of the original primary main server. See [“Stop original primary auxiliary servers”](#) for more information.
- 17 If other components in the 5620 SAM system use SSL or HTTPS to communicate with the new primary main server, you must reconfigure SSL, and HTTPS, if required, on the main server interfaces, before the main server can communicate with the other components. See [“Configure communication security for new primary main server”](#) for more information.
- 18 Start the new primary (original standby) 5620 SAM main server. See [“Start new primary main server”](#) for more information.
- 19 If the 5620 SAM deployment contains auxiliary servers, start the preferred and reserved auxiliary servers of the new primary main server. See [“Start new primary auxiliary servers”](#) for more information.
- 20 Upgrade or install 5620 SAM single-user clients or client delegate servers, as required. A 5620 SAM client is required for network monitoring and sanity testing of the first upgraded server and database. Sanity testing at this point facilitates backing out of the upgrade if it is necessary.

See [“Upgrade or install 5620 SAM client”](#) for more information.



**Note** — This is the end of the network management outage.

- 21 Perform sanity testing on the upgraded server and database using a newly installed or upgraded 5620 SAM client. See [“Test 5620 SAM system using new client”](#) for more information.
- 22 Uninstall the original primary database. See [“Uninstall original primary database”](#) for more information.
- 23 Install the new standby database. See [“Install new standby database”](#) for more information.
- 24 Reinstantiate the database on the new standby database station.  
See [“Reinstantiate database on new standby station”](#) for more information.
- 25 Upgrade the original primary main server to become the new standby main server.  
See [“Upgrade original primary main server”](#) for more information.
- 26 If other components in the 5620 SAM system use SSL or HTTPS to communicate with the new standby main server, you must reconfigure SSL, and HTTPS, if required, on the main server interfaces, before the main server can communicate with the other components. See [“Configure communication security for new standby main server”](#) for more information.
- 27 If the 5620 SAM deployment contains auxiliary servers, upgrade the preferred and reserved auxiliary servers of the new standby main server. See Procedure 4-6 for more information.



- 28 If the 5620 SAM deployment contains auxiliary servers, start the preferred and reserved auxiliary servers of the new standby main server. See [“Start new standby auxiliary servers”](#) for more information.
- 29 Upgrade or install additional 5620 SAM single-user clients or client delegate servers, if required. See [“Upgrade or install additional clients for redundant system”](#) for more information.
- 30 If you are upgrading from 5620 SAM Release 6.0 or 6.1, you must perform a routing policy migration. See [“Perform routing policy migration”](#) for more information.

## 4.7 Redundant 5620 SAM system upgrade on Solaris procedures

This section describes how to upgrade the software components of a redundant 5620 SAM system on Solaris.

Before you begin a 5620 SAM system upgrade, you must collect the required information and ensure that the proper conditions are in place. Procedure [4-1](#) describes how to perform the required tasks to prepare for a 5620 SAM system upgrade.

Procedure [4-5](#) describes how to upgrade the 5620 SAM database and main server software. Procedure [4-3](#) describes how to upgrade a 5620 SAM single-user client. Procedure [4-4](#) describes how to upgrade a 5620 SAM client delegate server.



**Note** — Command-line examples use the following to represent the Solaris CLI prompts:

- #—represents the prompt for a root or root-equivalent user
- bash\$—represents the prompt for the samadmin and Oracle management users

Do not type the # symbol or bash\$ when entering a command.



## Procedure 4-5 To upgrade a redundant 5620 SAM system on Solaris

Perform this procedure to upgrade the 5620 SAM database and main server software in a redundant 5620 SAM system on one or more Solaris stations. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



**Note** — You require the following user privileges to perform this procedure:

on each main server station:

- root or root-equivalent
- samadmin (if you are upgrading from 5620 SAM Release 6.1 or later)

on each database station:

- root or root-equivalent
- Oracle management

- 1 Open an existing 5620 SAM client GUI for network monitoring purposes until the second 5620 SAM server and database are disabled in this procedure.

### Back up primary database

- 2 If you did not perform a database backup as part of the pre-upgrade preparation in Procedure 4-1, you must back up the database now.



**Caution** — When you back up a 5620 SAM database, you must specify a backup directory that does not include the 5620 SAM database installation directory, or data loss may occur. The default 5620 SAM database installation directory is `/opt/5620sam/samdb`.

Perform one of the following.

- a Use the 5620 SAM client GUI. See the *5620 SAM User Guide* for information about performing database backups.
- b Use a CLI script.
  - i Log in to the primary database station as the Oracle management user.
  - ii Open a console window.
  - iii Enter the following at the CLI prompt to begin the database backup:

```
bash$ path/install/config/samdb/SAMbackup.sh
backup_directory ↵
```

where

*path* is the 5620 SAM database installation location, typically `/opt/5620sam/samdb`  
*backup\_directory* is the directory that is to contain the database backup

The 5620 SAM backs up the database.

- iv Record the backup directory location.
- v Copy the database backup files from the backup directory to a secure location, such as a non-5620 SAM station, for safekeeping.

### Align database roles with 5620 SAM configuration

- 3 Before you can perform a redundant upgrade, the database that is designated the primary database in the primary main server configuration must currently be operating as the primary database.

If you are upgrading from 5620 SAM Release 7.0 R1 or later and automatic database realignment is enabled, go to step 4. Otherwise, perform the following steps to ensure that the correct database is currently the primary database.



**Note** — In a collocated redundant 5620 SAM system, the primary main server and the primary database must be on the same station.

- i Log in to the primary server station as the appropriate user:
  - If you are upgrading from 5620 SAM Release 6.1 or later, you must log in as the samadmin user.
  - If you are upgrading from 5620 SAM Release 6.0, you must log in as a root or root-equivalent user.

- ii Open the following file for viewing:

*path*/nms/config/nms-server.xml

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

- iii Search for the section that begins with the following XML tag:

<db

- iv Locate the line in this section that reads as follows:

```
host="nnn.nnn.nnn.nnn"
```

where *nnn.nnn.nnn.nnn* is the IP address of a station in the 5620 SAM cluster

This IP address on this line is the original primary database IP address.

- v If the IP address on the host= line belongs to the current standby database station, you must perform a database switchover so that the standby database becomes the primary database. See the *5620 SAM User Guide* for information about performing a database switchover.



**Caution** — Do not attempt to modify the nms-server.xml file. You cannot change the 5620 SAM primary and standby database designations by changing a parameter value.

- vi Close the nms-server.xml file.

## Stop standby main server

- 4 Stop the standby 5620 SAM main server application.



**Note** — Because the CLI prompts for the samadmin and root-equivalent users differ, no CLI prompts are shown in the step text.

- i Log in to the standby server station as the appropriate user:
  - If you are upgrading from 5620 SAM Release 6.1 or later, you must log in as the samadmin user.
  - If you are upgrading from 5620 SAM Release 6.0, you must log in as a root or root-equivalent user.

- ii Open a console window.

- iii Enter the following at the CLI prompt to change to the server binary directory:

```
cd path/nms/bin ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

- iv Enter the following at the CLI prompt to stop the 5620 SAM server software:

```
./nmsserver.bash stop ↵
```

- v Enter the following at the CLI prompt to display the 5620 SAM server status:

```
./nmsserver.bash appserver_status ↵
```

The command displays a status message.

- vi The 5620 SAM server is stopped when the command displays the following status message:

```
Application Server is stopped
```

If the command displays a different message, wait 5 m and repeat step 4 v. Do not proceed to the next step until the server is stopped.

## Disable standby server daemon

- 5 Perform the following steps to disable the 5620 SAM server startup daemon on the standby server station. This ensures that the standby 5620 SAM server does not automatically start in the event of an electrical or network disruption during the upgrade.

- i If you are currently logged in as the samadmin user on the standby server station, enter the following at the CLI prompt on the standby server station to switch to the root user:

```
bash$ su - ↵
```

- ii Enter the following at the CLI prompt to change to the rc3.d directory:

```
cd /etc/rc3.d ↵
```

- iii Enter the following at the CLI prompt to disable the 5620 SAM server startup daemon by renaming it:

```
mv S975620SAMServerWrapper
inactive.S975620SAMServerWrapper ↵
```

### Stop standby auxiliary servers

- 6 If the 5620 SAM deployment contains auxiliary servers, perform the following steps to stop the auxiliary server software on each preferred and reserved auxiliary server station of the standby main server.



**Note** — Because the CLI prompts for the samadmin and root-equivalent users differ, no CLI prompts are shown in the step text.

- i Log in to the auxiliary server station as the appropriate user:
- If you are upgrading from 5620 SAM Release 6.1 or later, you must log in as the samadmin user.
  - If you are upgrading from 5620 SAM Release 6.0, you must log in as a root or root-equivalent user.
- ii Open a console window.
- iii Enter the following at the CLI prompt to stop the 5620 SAM server software:

```
path/nms/bin/auxnmserver.bash auxstop ↵
```

where *path* is the 5620 SAM auxiliary server installation location, typically /opt/5620sam/auxserver

The 5620 SAM auxiliary server stops.

### Disable redundancy on primary main server

- 7 Disable the 5620 SAM failover and switchover functionality on the primary server.



**Note** — Because the CLI prompts for the samadmin and root-equivalent users differ, no CLI prompts are shown in the step text.

- i Log in to the primary main server station as the appropriate user:
- If you are upgrading from 5620 SAM Release 6.1 or later, you must log in as the samadmin user.
  - If you are upgrading from 5620 SAM Release 6.0, you must log in as a root or root-equivalent user.

- ii Open a console window.
- iii Enter the following at the CLI prompt to change to the server configuration directory:

```
cd path/nms/config ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

- iv Enter the following at the CLI prompt to make a backup copy of the server configuration file:

```
cp nms-server.xml nms-server.xml.backup ↵
```

- v Open the nms-server.xml file with a plain-text editor, for example, vi.
- vi Search for the <db tag.
- vii Edit the line below the tag that reads:

```
redundancyEnabled="true"
```

to read:

```
redundancyEnabled="false"
```

- viii Save the nms-server.xml file.
- ix Close the nms-server.xml file.
- x Enter the following at the CLI prompt to put the nms-server.xml change into effect:

```
path/nms/bin/nmsserver.bash read_config ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

The primary 5620 SAM server application is reconfigured with database redundancy disabled.

### Upgrade standby database

- 8 You must run a pre-upgrade script that configures the UNIX account for the Oracle management user and adds configuration information to the /etc/system file.

Log in to the standby database station as a user with root or root-equivalent privileges.



**Caution** — Ensure that you run only the pre-installation script that is on the new 5620 SAM software DVD-ROM. Using a different version of the script may cause the database upgrade to fail.

- 9 Open a console window.
- 10 Place the new 5620 SAM software DVD-ROM in a DVD-ROM drive.
- 11 Navigate to the DVD-ROM drive.

12 Perform one of the following to change to the appropriate Solaris directory.

a On a Sun SPARC station, enter the following at the CLI prompt:

```
cd Solaris ↵
```

b On a Sun X86-based station, enter the following at the CLI prompt:

```
cd Solarisx86 ↵
```

13 Enter the following at the CLI prompt:

```
./Oracle10g_PreInstall.sh ↵
```

The following prompt is displayed:

```
Please select between the following option:
```

```
1) NEW INSTALL OF 5620 SAM
```

```
2) UPGRADE OF 5620 SAM
```

14 Enter 2 ↵.

15 The script prompts you for the following Oracle management user information:

- the user group name (default is dba)
- the user name (default is oracle)
- the home directory (default is /opt/5620sam/oracle10r2)
- a password, if one of the following is true:
  - there is no password
  - there is a password, but you specify that you want to change it

Provide the information. The script updates the system configuration.



**Note 1** — To reduce the complexity of subsequent software upgrades and technical support activities, Alcatel-Lucent recommends that you press ↵ to accept the default value for each parameter.

**Note 2** — If you specify a value other than the default, you must record the value for use when the Oracle10g\_PreInstall.sh script is run during a software upgrade, or when the Oracle management user information is required by Alcatel-Lucent technical support.

**Note 3** — Running the script may generate messages that are similar to the following; these are not error messages and can be ignored.

- WARNING: Group dba already exists locally.
- WARNING: Oracle user with the specified name already exists locally.
- projadd: Duplicate project name "Oracle10R2"

- 16 When the script execution is complete, disable the 5620 SAM Oracle proxy daemon to ensure that the daemon does not conflict with the database installer.
  - i Enter the following at the CLI prompt to change to the /etc/rc3.d directory:  

```
cd /etc/rc3.d ↵
```
  - ii Enter the following at the CLI prompt to disable the 5620 SAM Oracle proxy daemon by renaming it:  

```
mv S965620SAMOracleProxyWrapper
inactive.S965620SAMOracleProxyWrapper ↵
```
- 17 Enter the following at the CLI prompt to reboot the standby database station and put the system update into effect:  

```
shutdown -y -i6 -g0 ↵
```

The standby database station reboots.
- 18 Log in to the standby database station as the Oracle management user.
- 19 Open a console window.
- 20 Place the new 5620 SAM software DVD-ROM in a DVD-ROM drive.
- 21 Navigate to the DVD-ROM drive.
- 22 Perform one of the following to open the 5620 SAM database installer.
  - a On a Sun SPARC station:
    - i Enter the following at the CLI prompt:  

```
bash$ cd Solaris ↵
```
    - ii Enter the following at the CLI prompt:  

```
bash$./DBConfig_SAM_8_0_revision.bin ↵
```

where  
*revision* is the revision identifier, such as R1, R3, or another descriptor
  - b On a Sun X86-based station:
    - i Enter the following at the CLI prompt:  

```
bash$ cd Solarisx86 ↵
```
    - ii Enter the following at the CLI prompt:  

```
bash$./DBConfig_x86_SAM_8_0_revision.bin ↵
```

where  
*revision* is the revision identifier, such as R1, R3, or another descriptor

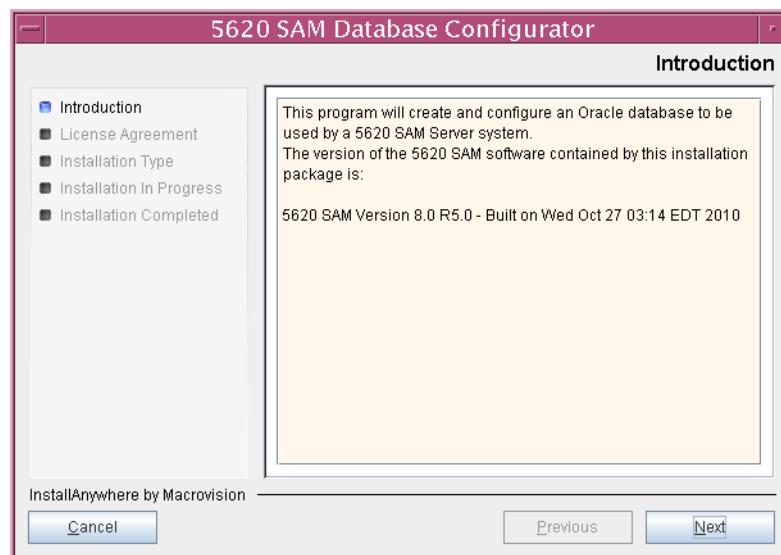
The splash screen shown in Figure 4-55 opens.

Figure 4-55 5620 SAM installer



- 23 The 5620 SAM database installer opens, as shown in Figure 4-56. The left pane indicates upgrade progress. The right pane displays release information about the software. Click on the Next button.

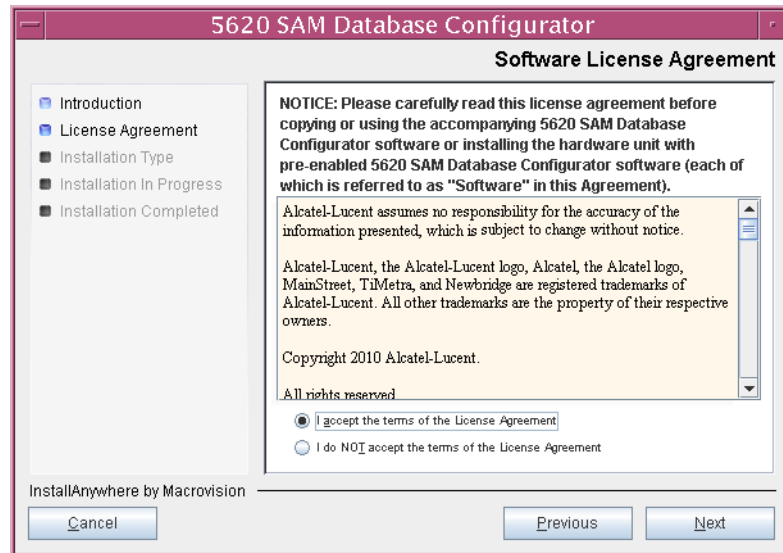
Figure 4-56 Introduction





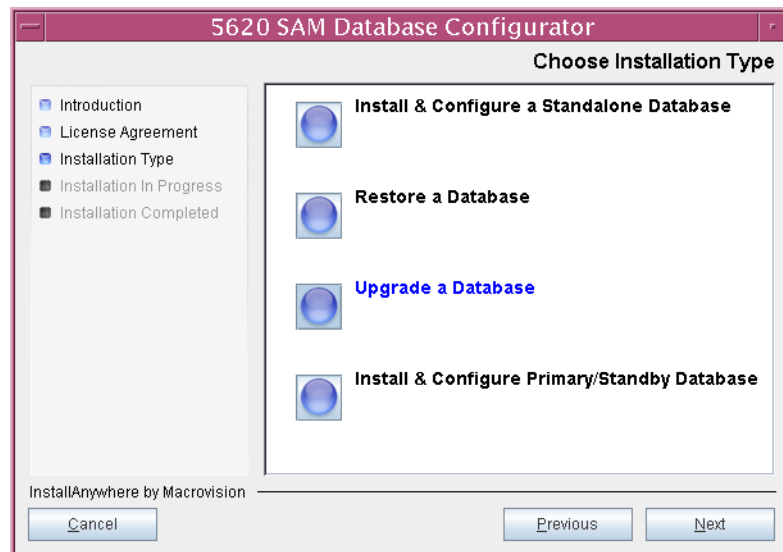
- 24 Review and accept the terms of the license agreement shown in Figure 4-57. Click on the Next button.

Figure 4-57 Software License Agreement



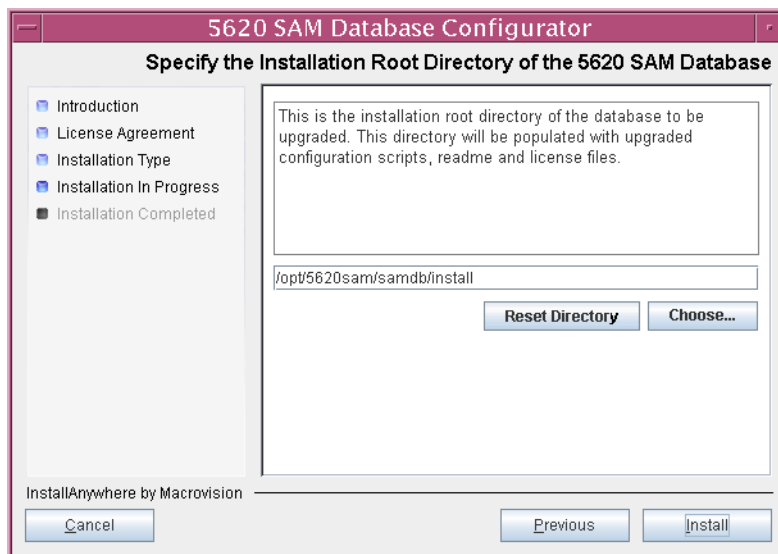
- 25 Select Upgrade a Database, as shown in Figure 4-58. Click on the Next button.

Figure 4-58 Choose Installation Type



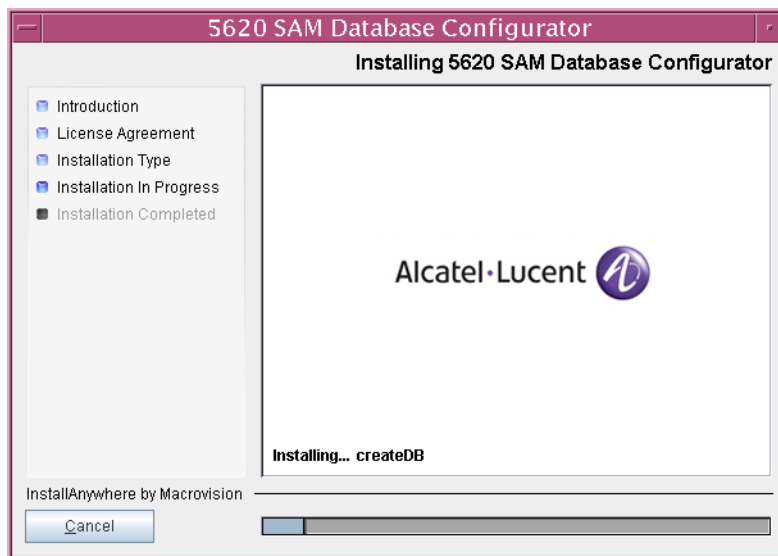
- 26 Specify the base directory in which the existing 5620 SAM database software is installed (typically /opt/5620sam/samdb/install), as shown in Figure 4-59. Click on the Install button to begin the database software upgrade.

Figure 4-59 Specify the Installation Root Directory of the 5620 SAM Database



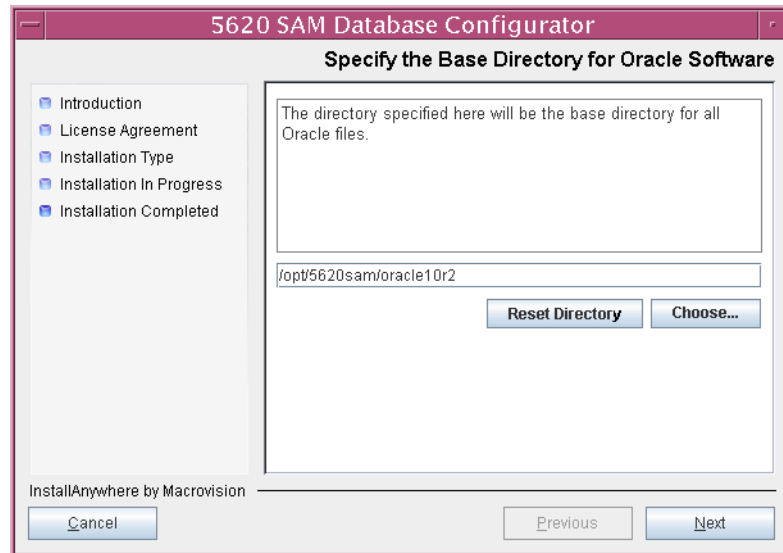
The 5620 SAM installer prepares to upgrade the database, as shown in Figure 4-60.

Figure 4-60 Installing 5620 SAM Database Configurator



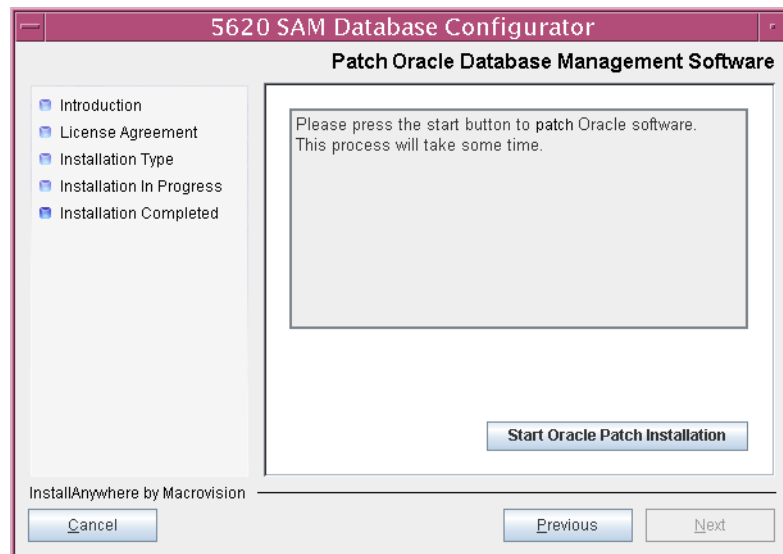
- 27 The panel shown in Figure 4-61 displays the Oracle software installation directory, which cannot be changed. Click on the Next button.

Figure 4-61 Specify the Base Directory for Oracle Software



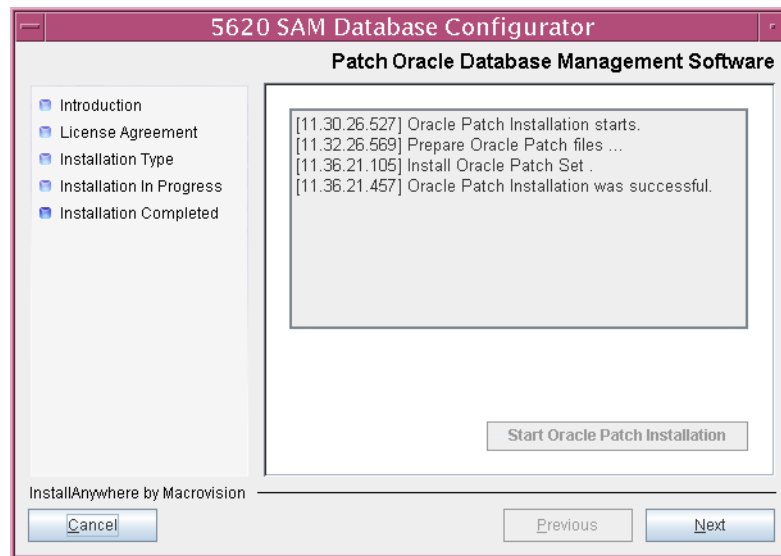
- 28 If the panel in Figure 4-62 is displayed, perform the following steps.

Figure 4-62 Patch Oracle Database Management Software



- i Click on the “Start Oracle Patch Installation” button to begin installing the Oracle patch. Oracle patch installation can take an hour or more to complete.
- ii Oracle patch installation details are displayed as the patch installation progresses. When the patch installation is complete, as shown in Figure 4-63, click on the Next button to continue.

Figure 4-63 Patch Oracle Database Management Software



29 Configure the following parameters shown in Figure 4-64 using information from the existing standby database installation, then click on the Next button:

- NAT (network address translation) Used
- Public IP (accessible to servers)
- Private IP
- Database Name (typically samdb)
- Instance Name (typically samdb2)
- User Name (typically samuser)
- User Password



**Note —** The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected.

Figure 4-64 Get Upgrade Database Info

**5620 SAM Database Configurator**

**Get Upgrade Database Info**

Enter the network interface information that the database will use to communicate with the servers. If NAT (network address translation) is to be used, specify both the database's private and public IP addresses.

☒ NAT (network address translation) Used

Public IP (accessible to servers) 192.168.200.133

Database Name samdb

Instance Name samdb2

User Name samuser

User Password .....

InstallAnywhere by Macrovision

Cancel Previous Next

- 30 Configure the following parameters shown in Figure 4-65 using information from the existing 5620 SAM installation, then click on the Next button:
- Database Listener Port (typically 1523)
  - Database Proxy Port (typically 9002)
  - Database File Server Port (typically 9003)

Figure 4-65 Get Upgrade Database Info (cont.)

The screenshot shows the '5620 SAM Database Configurator' window. On the left is a navigation pane with five items: 'Introduction' (selected with a blue square), 'License Agreement' (blue square), 'Installation Type' (blue square), 'Installation In Progress' (blue square), and 'Installation Completed' (black square). The main area is titled 'Get Upgrade Database Info (cont.)' and contains three text input fields: 'Database Listener Port' with the value '1523', 'Database Proxy Port' with the value '9002', and 'Database File Server Port' with the value '9003'. At the bottom left, it says 'InstallAnywhere by Macrovision' above a 'Cancel' button. At the bottom right are 'Previous' and 'Next' buttons.

The installer prepares for the next configuration phase, as shown in Figure 4-66.

Figure 4-66 Please Wait

The screenshot shows the '5620 SAM Database Configurator' window in a 'Please Wait' state. The navigation pane on the left is identical to the previous screen, with 'Introduction' selected. The main area is titled 'Please Wait' and contains the text: 'Please wait, 5620 SAM Database Configurator is being configured for your system. This may take a moment...'. At the bottom left, it says 'InstallAnywhere by Macrovision' above a 'Cancel' button. At the bottom right are 'Previous' and 'Next' buttons.

- 31 Configure the following parameters, shown in Figure 4-67, using the existing primary database values. Click on the Next button.

- Primary IP Address
- Primary Instance Name (typically samdb1)

Figure 4-67 Primary Database Info

The screenshot shows the '5620 SAM Database Configurator' window. On the left is a navigation pane with five items: 'Introduction' (selected), 'License Agreement', 'Installation Type', 'Installation In Progress', and 'Installation Completed'. The main area is titled 'Primary Database Info' and contains a text box with instructions: 'Enter the IP address of the network interface the primary database requires to communicate with the server(s). If NAT (network address translation) is to be used, specify the primary database's public IP address.' Below this are two input fields: 'Primary IP Address' (empty) and 'Primary Instance Name' (containing 'samdb1'). At the bottom left is the text 'InstallAnywhere by Macrovision' and a 'Cancel' button. At the bottom right are 'Previous' and 'Next' buttons.

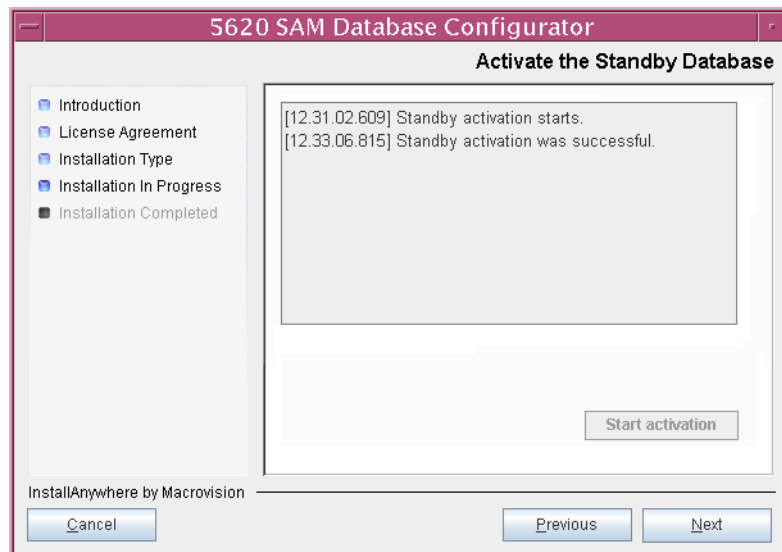
- 32 You are prompted to activate the standby database, as shown in Figure 4-68. Click on the Start activation button to proceed with the activation.

Figure 4-68 Activate the Standby Database

The screenshot shows the '5620 SAM Database Configurator' window. The navigation pane on the left is the same as in Figure 4-67. The main area is titled 'Activate the Standby Database' and contains a text box with instructions: 'We will activate this standby database to make it a writable primary database before it can be upgraded. This process will take a few minutes. Please press the start button.' Below the text box is a 'Start activation' button. At the bottom left is the text 'InstallAnywhere by Macrovision' and a 'Cancel' button. At the bottom right are 'Previous' and 'Next' buttons.

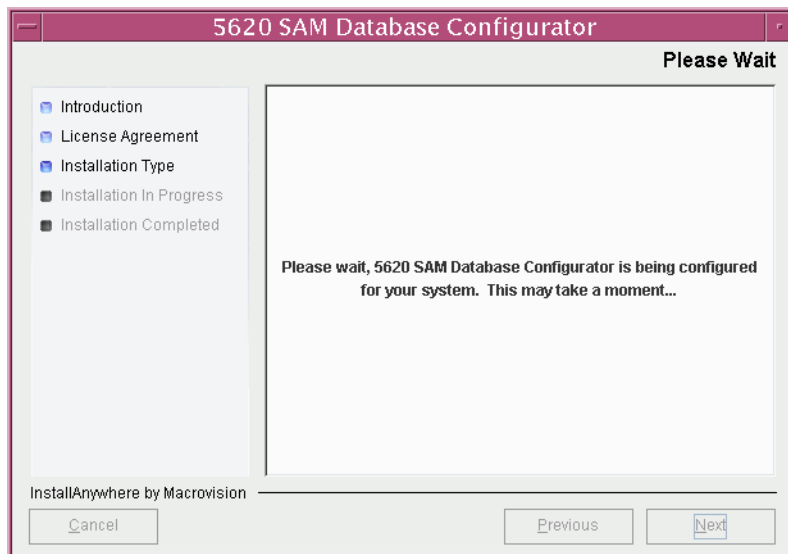
- 33 Database activation details are displayed as the activation progresses. When the activation is complete, as shown in Figure 4-69, click on the Next button.

Figure 4-69 Activate the Standby Database



The installer prepares for the next configuration phase, as shown in Figure 4-70.

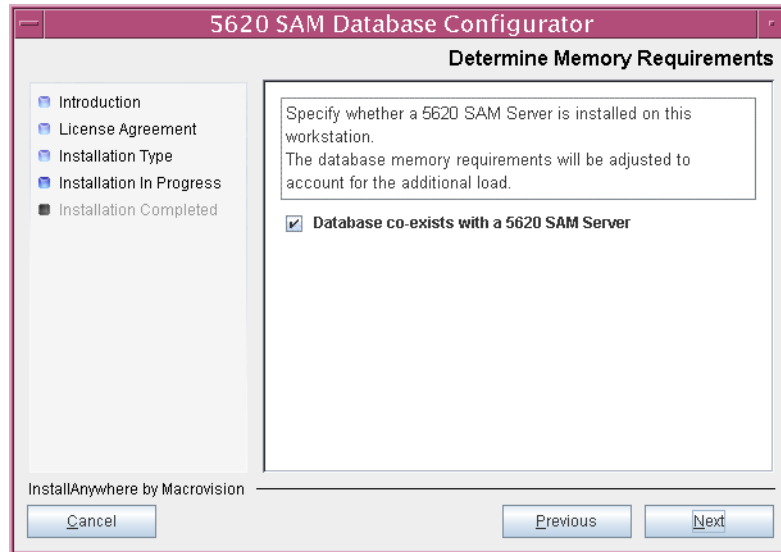
Figure 4-70 Please Wait





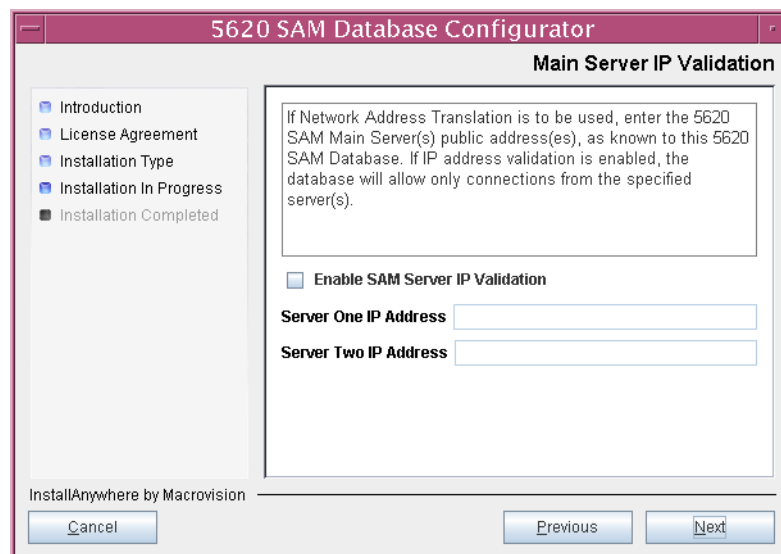
- 34 If the 5620 SAM server and database are installed on the same station, select the “Database co-exists with a 5620 SAM Server” parameter shown in Figure 4-71. Click on the Next button.

Figure 4-71 Determine Memory Requirements



- 35 If the “Enable SAM Server IP Validation” parameter shown in Figure 4-72 is selected, only the server at the specified IP addresses or hostnames can connect to the database. If required, select it and configure the following parameters. Click on the Next button.
- Server One IP Address
  - Server Two IP Address

Figure 4-72 Main Server IP Validation

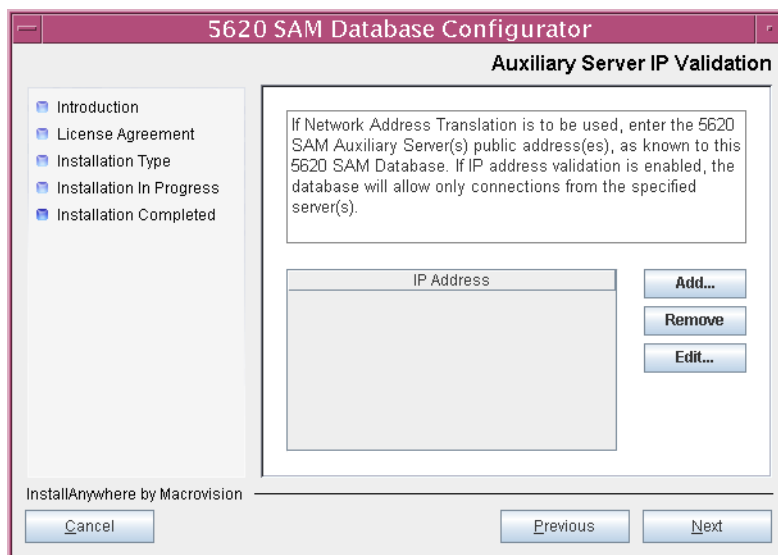


- 36 Depending on the 5620 SAM release from which you are upgrading, the panel in Figure 4-73 is displayed if the “Enable SAM Server IP Validation” parameter in step 35 is selected. Otherwise, go to step 38.

If the 5620 SAM system includes an auxiliary server, perform the following steps.

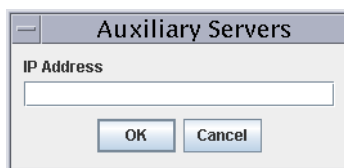
- i Click on the Add button shown in Figure 4-73. The Auxiliary Server Configuration form shown in Figure 4-74 opens.

Figure 4-73 Auxiliary Server IP Validation



- ii Enter the IP address and hostname of the auxiliary server.

Figure 4-74 Auxiliary Servers



- iii Click on the OK button to save the information and close the form.
  - iv Repeat steps 36 i to iii to specify an additional auxiliary server, if required.
- 37 Click on the Next button.

- 38 If the panel in Figure 4-75 is displayed, specify a directory for the continuous statistics tablespace backup. Click on the Next button.

Figure 4-75 Staging Destination

The screenshot shows the "5620 SAM Database Configurator" window. On the left is a navigation pane with five items: "Introduction", "License Agreement", "Installation Type", "Installation In Progress", and "Installation Completed". The "Installation Completed" item is selected and highlighted. The main area is titled "Staging Destination" and contains the following text: "Specify a staging directory for the files created by the continuous statistics tablespace backup. The directory must be located on a low-activity device, such as a disk that is dedicated to this function only." Below this text is a text input field containing the path "/opt/5620sam/dbbackup/staging". To the right of the input field are two buttons: "Reset Directory" and "Choose...". At the bottom of the window, there is a status bar that says "InstallAnywhere by Macrovision" and three buttons: "Cancel", "Previous", and "Next".

- 39 Configure the "Accounting Statistics Database Retention Period" parameter shown in Figure 4-76. Click on the Next button.

Figure 4-76 Accounting Statistics Database Retention Period

The screenshot shows the "5620 SAM Database Configurator" window. On the left is a navigation pane with five items: "Introduction", "License Agreement", "Installation Type", "Installation In Progress", and "Installation Completed". The "Installation Completed" item is selected and highlighted. The main area is titled "Accounting Statistics Database Retention Period" and contains the following text: "Enter the accounting statistics retention period (in days). The retention period is the maximum number of days that records are kept in the database. Using a longer retention period will require more disk space." Below this text is a text input field labeled "Accounting Statistic Data Retention Period" with the value "1" entered. At the bottom of the window, there is a status bar that says "InstallAnywhere by Macrovision" and three buttons: "Cancel", "Previous", and "Next".

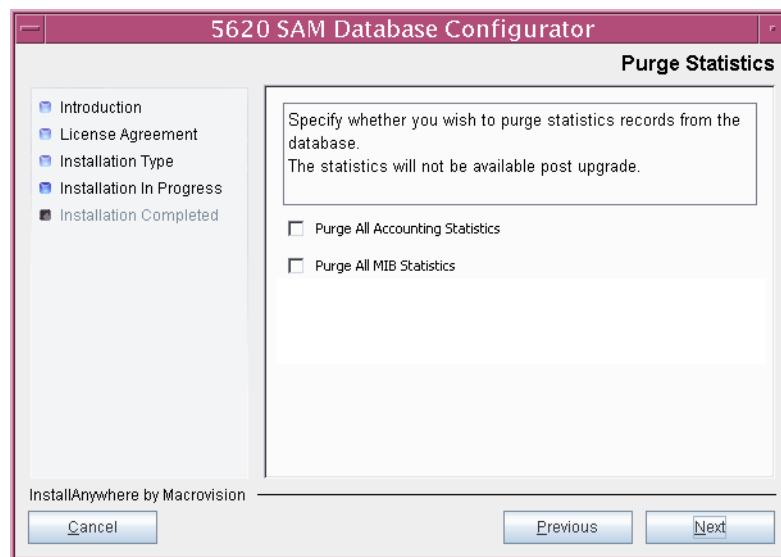
- 40 To reduce the time required for the database upgrade, you can purge the current 5620 SAM statistics data. Configure the following parameters shown in Figure 4-77, then click on the Next button:

- Purge All Accounting Statistics
- Purge All MIB Statistics



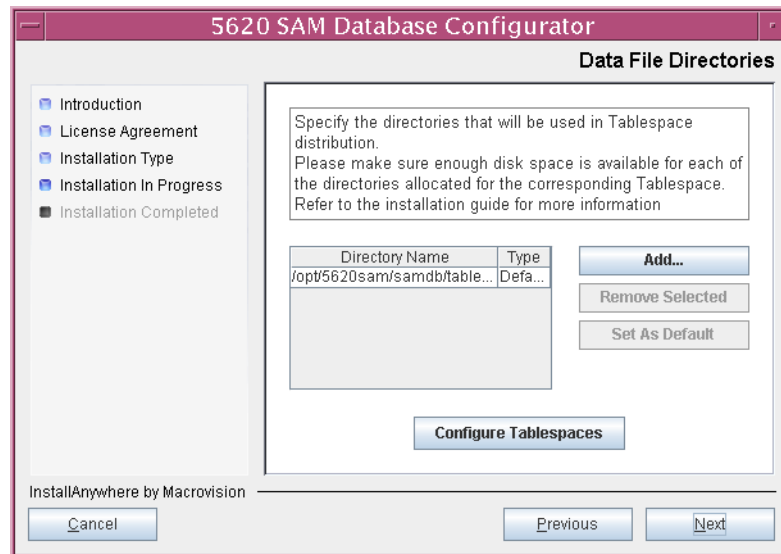
**Note —** The statistics data for the specified statistics types are permanently deleted from the 5620 SAM database.

Figure 4-77 Purge Statistics



- 41 If the panel in Figure 4-78 is displayed, the new database contains at least one tablespace that is not defined in the previous database and you must perform the following steps to specify the tablespace directories. Otherwise, go to step 44.
- i Click on the Add button. A file browser form opens.
  - ii Use the file browser form to choose a tablespace directory.
  - iii Repeat steps 41 i and ii to specify an additional tablespace directory, if required.

Figure 4-78 Data File Directories



- 42 Associate the new tablespaces with the directories specified in step 41.
- i Click on the Configure Tablespaces button. The tablespace configuration form opens, as shown in Figure 4-79.



**Note —** The lists of drives and tablespaces on the tablespace configuration form may differ from the lists shown in the figure below.

- ii Follow the instructions at the top of the form to associate tablespaces with directories, as required.
- iii Click on the OK button. The tablespace configuration form closes and the Data File Directories panel in Figure 4-78 reappears.

Figure 4-79 Configure Tablespaces

Select one drive and one or more Tablespaces from the left side. Add those associations to the right side using the 'Add associations from the left' button.  
You can select at the same time on both TS tables at the left: Oracle Tablespaces and 5620 SAM Tablespaces

| Directory Name            | Type    |
|---------------------------|---------|
| /opt/5620sam/samdb/tables | Default |

**Oracle Tablespaces**

| Tablespace Name |
|-----------------|
|-----------------|

**5620 SAM Tablespaces**

| Tablespace Name       |
|-----------------------|
| CURRENT_DATA_STRUCT_1 |
| CURRENT_DATA_STRUCT_2 |
| CURRENT_DATA_STRUCT_3 |
| CURRENT_DATA_STRUCT_4 |
| SAM_RELATIONS_1       |
| SAM_RELATIONS_2       |
| SAM_SYSTEM_1          |
| SAM_SYSTEM_2          |
| SAM_SYSTEM_3          |
| SAM_SYSTEM_4          |
| STATS_CURRENT         |
| STATS_HISTORY         |
| STATS_POLICY          |
| SYSAUX                |
| SYSTEM                |
| TEMP                  |
| TMS_SYSTEM            |
| TMS_SYS_INDX          |
| UNDOTBS1              |
| USERS                 |

| Name                  | Drive                     |
|-----------------------|---------------------------|
| ALARMS                | /opt/5620sam/samdb/tables |
| ALARM_HISTORY         | /opt/5620sam/samdb/tables |
| CURRENT_DATA_STRUCT_1 | /opt/5620sam/samdb/tables |
| CURRENT_DATA_STRUCT_2 | /opt/5620sam/samdb/tables |
| CURRENT_DATA_STRUCT_3 | /opt/5620sam/samdb/tables |
| CURRENT_DATA_STRUCT_4 | /opt/5620sam/samdb/tables |
| INDX                  | /opt/5620sam/samdb/tables |
| SAM_RELATIONS_1       | /opt/5620sam/samdb/tables |
| SAM_RELATIONS_2       | /opt/5620sam/samdb/tables |
| SAM_SYSTEM_1          | /opt/5620sam/samdb/tables |
| SAM_SYSTEM_2          | /opt/5620sam/samdb/tables |
| SAM_SYSTEM_3          | /opt/5620sam/samdb/tables |
| SAM_SYSTEM_4          | /opt/5620sam/samdb/tables |
| STATS_CURRENT         | /opt/5620sam/samdb/tables |
| STATS_HISTORY         | /opt/5620sam/samdb/tables |
| STATS_POLICY          | /opt/5620sam/samdb/tables |
| SYSAUX                | /opt/5620sam/samdb/tables |
| SYSTEM                | /opt/5620sam/samdb/tables |
| TEMP                  | /opt/5620sam/samdb/tables |
| TMS_SYSTEM            | /opt/5620sam/samdb/tables |
| TMS_SYS_INDX          | /opt/5620sam/samdb/tables |
| UNDOTBS1              | /opt/5620sam/samdb/tables |
| USERS                 | /opt/5620sam/samdb/tables |

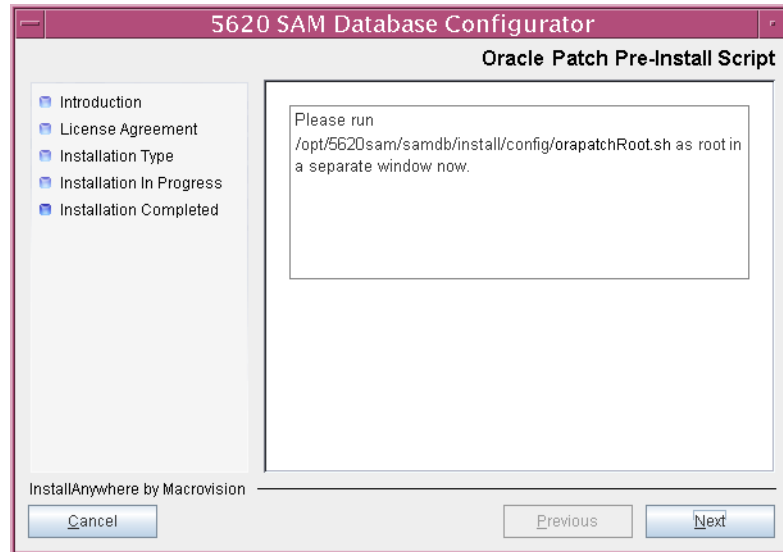
Add associations from the left  
Remove Selected Associations  
Set Default Associations  
Select All

OK Cancel

- 43 Click on the Next button.

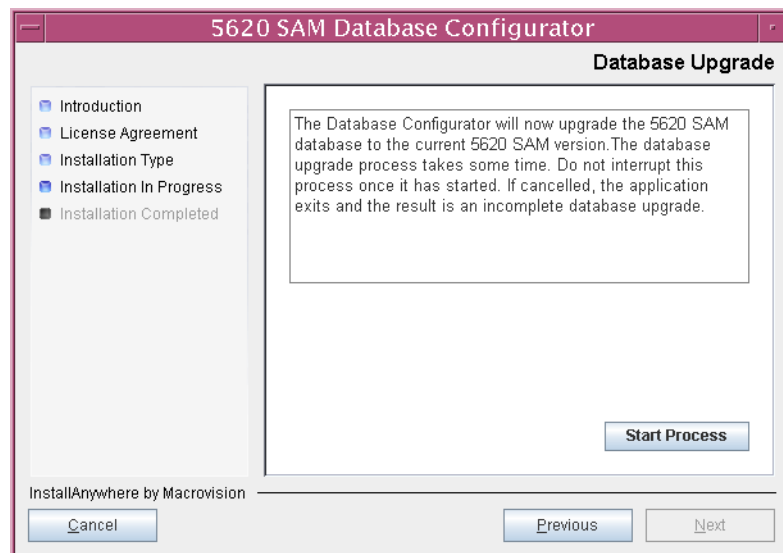
- 44 If you are prompted to run an Oracle patch pre-installation script, as shown in Figure 4-80, run the script in a separate console window as a user with root or root-equivalent privileges.

Figure 4-80 Oracle Patch Pre-install Script



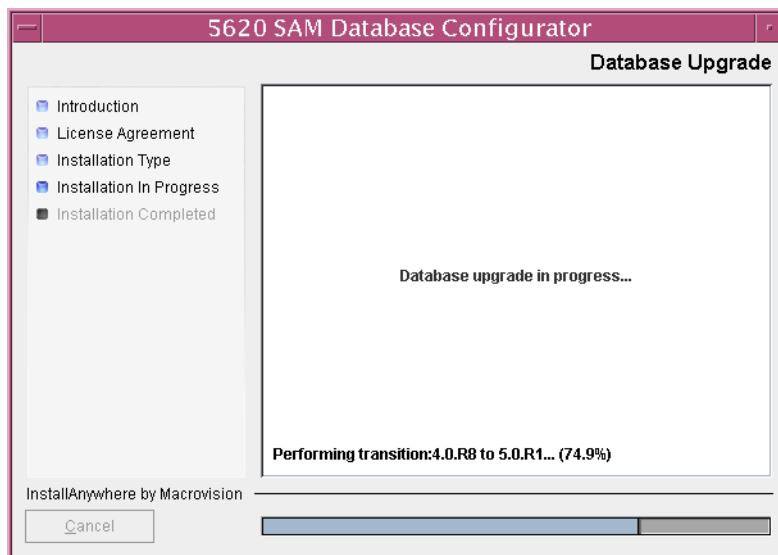
- 45 When the script execution is complete, click on the Next button.
- 46 You are prompted to begin the database upgrade, as shown in Figure 4-81. A database upgrade can take two hours or more, depending on the database release and number of database records. Click on the Start Process button to begin the database upgrade.

Figure 4-81 Database Upgrade



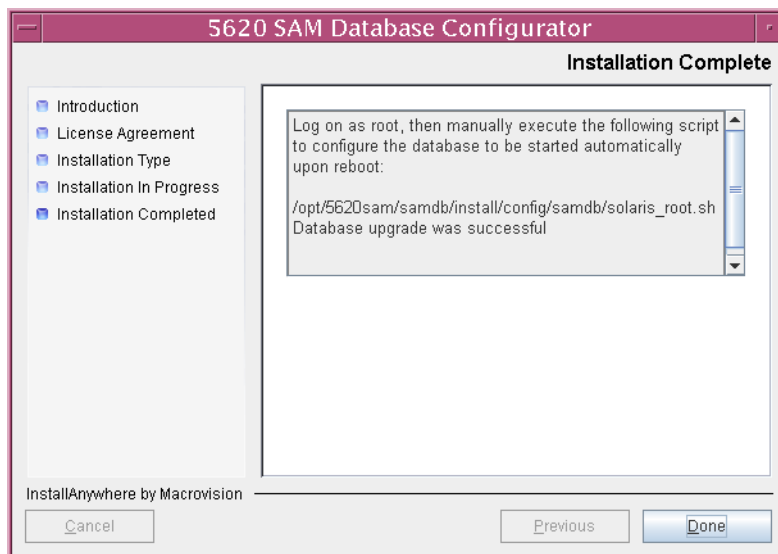
The next panel displays database creation progress, as shown in Figure 4-82.

Figure 4-82 Database Upgrade



- 47 When the panel in Figure 4-83 is displayed, the 5620 SAM database upgrade is complete, but as shown in the panel text, you must run a script to enable automatic database startup.

Figure 4-83 Installation Complete





Perform the following steps to run the script described in the panel.

- i Open a separate console window as a user with root or root-equivalent privileges.
- ii Enter the following at the CLI prompt:

```
path/install/config/samdb/solaris_root.sh
```

where *path* is the 5620 SAM database installation location, typically /opt/5620sam/samdb

The script returns messages similar to the following:

```
re-creating link for /usr/local/lib/libiconv.so.2
re-creating link for /usr/local/lib/libpopt.so.0
re-creating link for /usr/local/lib/libintl.so.8
re-creating link for /usr/local/lib/libgcc_s.so.1
```

- iii When the script execution is complete, close the console window.

- 48 Click on the Done button to close the database installer.

This database is the new primary database.

The next section of the procedure describes the upgrade of the original standby main server. A server upgrade requires root-equivalent privileges.

#### Upgrade original standby main server

- 49 Log in to the original standby main server station as a user with root or root-equivalent privileges.
- 50 Open a console window.
- 51 Perform the following steps to ensure that no-one is logged in to the station as the samadmin user.

- i Enter the following at the CLI prompt:

```
who ↵
```

The active user sessions are listed.

- ii If the samadmin user is listed, close each samadmin user session. See the appropriate Solaris documentation for more information.

- 52 Place the new 5620 SAM software DVD-ROM in a DVD-ROM drive.
- 53 Navigate to the DVD-ROM drive.

54 Perform one of the following to open the 5620 SAM server installer.

a On a Sun SPARC station:

i Enter the following at the CLI prompt:

```
cd Solaris ↵
```

ii Enter the following at the CLI prompt:

```
./ServerInstall_SAM_8_0_revision.bin ↵
```

where

*revision* is the revision identifier, such as R1, R3, or another descriptor

b On a Sun X86-based station:

i Enter the following at the CLI prompt:

```
cd Solarisx86 ↵
```

ii Enter the following at the CLI prompt:

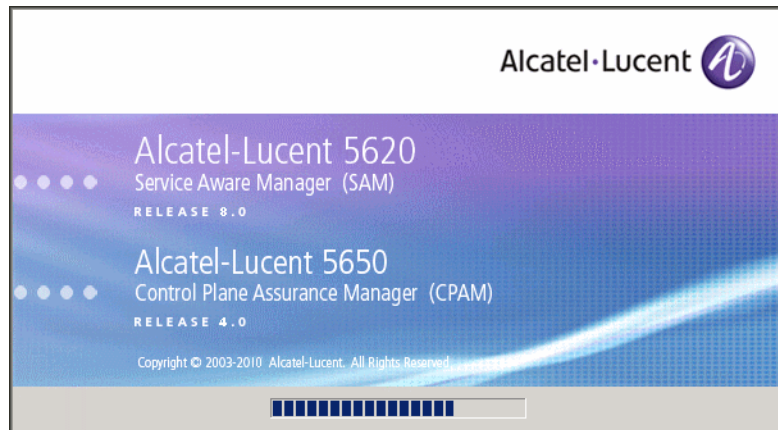
```
./ServerInstall_x86_SAM_8_0_revision.bin ↵
```

where

*revision* is the revision identifier, such as R1, R3, or another descriptor

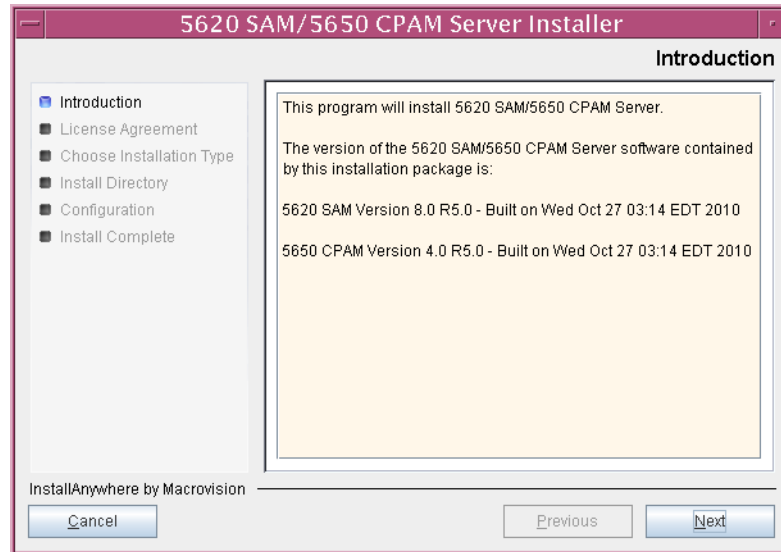
The splash screen shown in Figure 4-84 opens.

Figure 4-84 5620 SAM installer



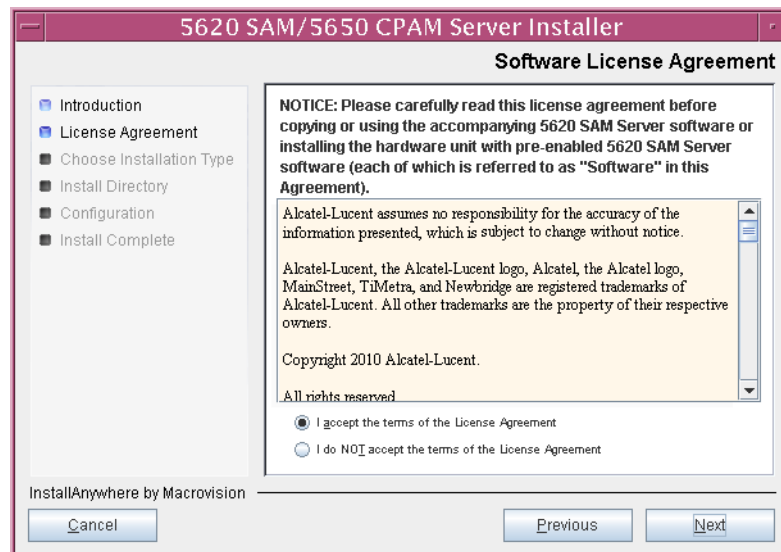
- 55 The 5620 SAM server installer opens, as shown in Figure 4-85. The left pane indicates upgrade progress. The right pane displays release information about the software. Click on the Next button.

Figure 4-85 Introduction



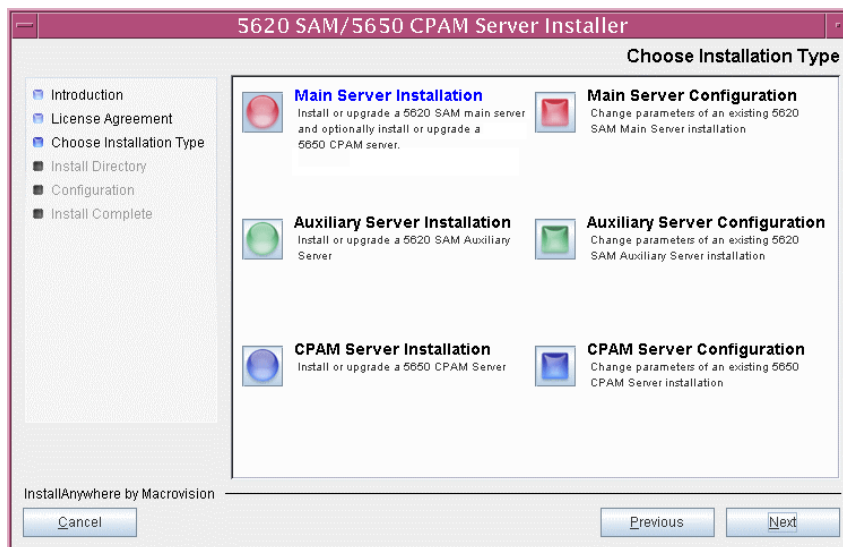
- 56 Review and accept the terms of the license agreement shown in Figure 4-86. Click on the Next button.

Figure 4-86 Software License Agreement



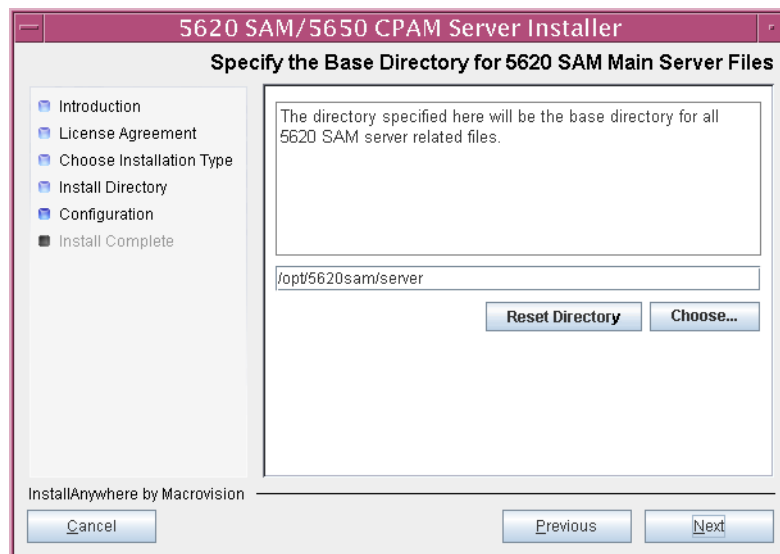
- 57 Select Main Server Installation, as shown in Figure 4-87. Click on the Next button.

Figure 4-87 Choose Installation Type



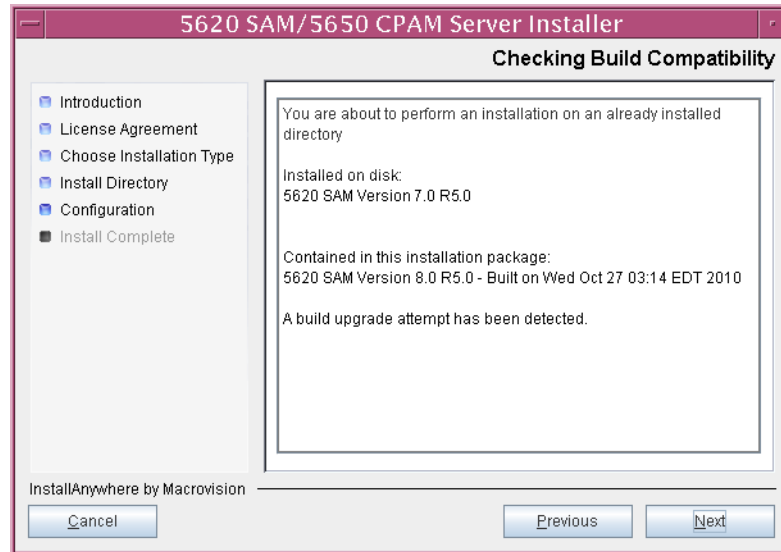
- 58 Specify the base directory in which the existing 5620 SAM main server software is installed (typically /opt/5620sam/server), as shown in Figure 4-88. Click on the Next button.

Figure 4-88 Specify the Base Directory for 5620 SAM Main Server Files



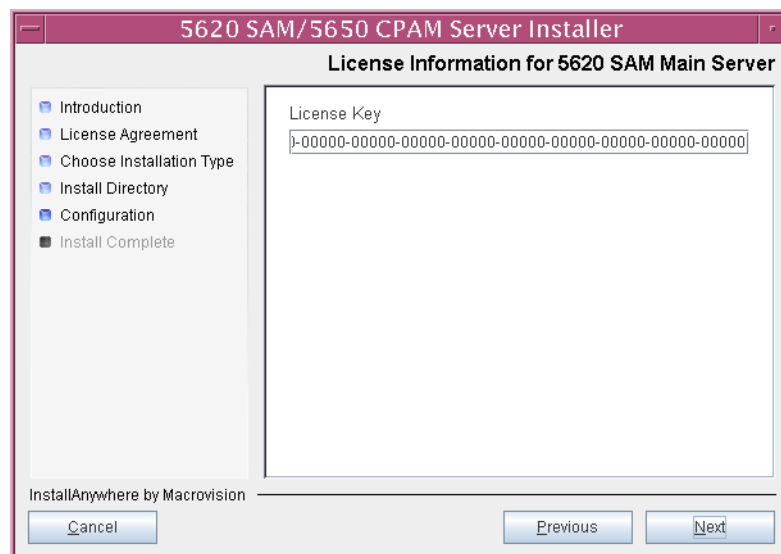
- 59 As shown in Figure 4-89, the installer indicates which release of 5620 SAM software is currently installed and the release to which it is to be upgraded. Verify the information. Click on the Next button.

Figure 4-89 Checking Build Compatibility



- 60 The 5620 SAM installer displays the License Key specified during the existing installation. Enter the License Key information for the new 5620 SAM release exactly as received from Alcatel-Lucent. Include the dashes in the key, as shown in Figure 4-90. Click on the Next button.

Figure 4-90 License Information for 5620 SAM Main Server



61 Configure the following parameters shown in Figure 4-91, then click on the Next button.

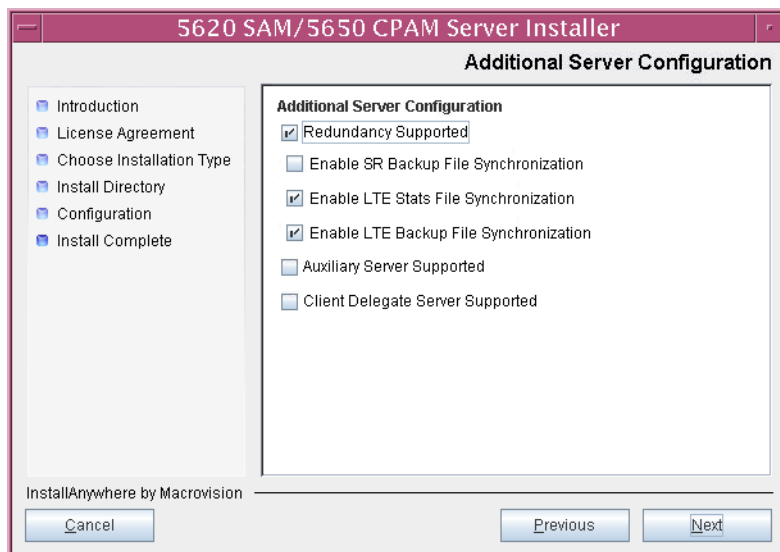
- Redundancy Supported
- Enable SR Backup File Synchronization
- Enable LTE Stats File Synchronization
- Enable LTE Backup File Synchronization
- Auxiliary Server Supported
- Client Delegate Server Supported



**Note 1** — You must select the Redundancy Supported parameter.

**Note 2** — The Enable SR Backup File Synchronization and Enable LTE Backup File Synchronization parameters are displayed only when the Redundancy Supported parameter is enabled.

Figure 4-91 Additional Server Configuration



62 Configure the following parameters, shown in Figure 4-92, using the recorded values from the new primary database upgrade, then click on the Next button.

- Primary Database IP Address (the IP address of the new primary database station)
- Primary Database Server Port (typically 1523)
- Primary Database Instance Name (the name of the former standby database instance, typically samdb2)
- Database User Name (typically samuser)
- Database User Password
- Primary Database Proxy Port (typically 9002)

Figure 4-92 Primary Database Configuration

The screenshot shows a window titled "5620 SAM/5650 CPAM Server Installer" with a sub-tab "Primary Database Configuration". On the left is a navigation pane with the following items: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (which is selected), and Install Complete. The main area contains a text box with instructions: "If NAT (network address translation) is to be used, enter the primary 5620 SAM database's public IP address, as known to the 5620 SAM server." Below this are several input fields: "Primary Database Server IP Address" (empty), "Primary Database Server Port" (1523), "Primary Database Instance Name" (samdb2), "Database User Name" (samuser), "Database User Password" (masked with asterisks), and "Primary Database Proxy Port" (9002). At the bottom left, it says "InstallAnywhere by Macrovision" above a "Cancel" button. At the bottom right are "Previous" and "Next" buttons.

63 Depending on the existing configuration, the panel in Figure 4-93 is displayed. Configure the following parameters, if required, then click on the Next button:

- Online Database Backup Interval (hours) (typically 24)
- Online Backup Destination (typically /opt/5620sam/dbbackup)
- Number Of Backup Sets (typically 3)



**Note** — The Online Backup Destination is a path on the file system of the database station specified in step 62.

Figure 4-93 Online Database Backup

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window with the 'Online Database Backup' panel selected. The left sidebar contains a list of steps: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration, and Install Complete. The main panel has a text box stating: 'The database backup directory resides on the database workstation. Please ensure that the specified directory exists on the database workstation and it is writable.' Below this are three input fields: 'Online Backup Interval (Hours)' with the value '24', 'Online Backup Destination' with the value '/opt/5620sam/dbbackup', and 'Number Of Backup Sets' with the value '3'. At the bottom, there are 'Cancel', 'Previous', and 'Next' buttons. The footer of the window reads 'InstallAnywhere by Macrovision'.



64 Configure the following parameters shown in Figure 4-94, then click on the Next button:

- Database Server IP Address (the IP address of the new standby database station)
- Database Instance Name (the name of the database instance on the new standby database station, typically samdb1)
- Database Proxy Port (typically 9002)
- Enable Database Backup File Synchronization

Figure 4-94 Standby Database Configuration

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window with the 'Standby Database Configuration' tab selected. On the left is a navigation pane with the following items: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (highlighted), and Install Complete. The main area contains a text box with the instruction: 'If NAT (network address translation) is to be used, enter the standby 5620 SAM database's public IP address as known to the 5620 SAM server.' Below this are three input fields: 'Database Server IP Address' (highlighted in yellow), 'Database Instance Name' (containing 'samdb1'), and 'Database Proxy Port' (containing '9002'). At the bottom of the main area is a checkbox labeled 'Enable Database Backup File Synchronization'. The footer of the window includes the text 'InstallAnywhere by Macrovision' and three buttons: 'Cancel', 'Previous', and 'Next'.

- 65 The panel in Figure 4-95 is displayed if you select “Auxiliary Server Supported” in step 61. Otherwise, go to step 67.

Perform the following steps to specify an auxiliary server, if required.

- i Configure the following parameters shown in Figure 4-95:
  - NAT (network address translation) Used  
Select this parameter only if NAT is to be used between the 5620 SAM main and auxiliary servers.
  - Private IP (accessible only by this server)  
You must configure this parameter if you select the NAT (network address translation) Used parameter.
  - Public IP (accessible to auxiliary)
  - Server Port (typically 12800)
  - Enable Stats Collection on Auxiliary Servers
  - Enable Call Trace Collection on Auxiliary Servers



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 4-95.

Figure 4-95 Main Server Configuration for Auxiliary Servers

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window. The title bar is '5620 SAM/5650 CPAM Server Installer'. The main title is 'Main Server Configuration for Auxiliary Servers'. On the left is a navigation pane with the following items: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (selected), and Install Complete. The main area contains the following text and controls:

Enter the the network interface information that this 5620 SAM main server requires to communicate with the 5620 SAM auxiliary servers.  
At least one service type checkbox must be selected.

☒ NAT (network address translation) Used

Private IP (accessible only by this server) 192.168.200.111

Public IP (accessible to auxiliary) [Empty text box]

Server Port 12800

☐ Enable Stats Collection on Auxiliary Servers

☒ Enable Call Trace Collection on Auxiliary Servers

At the bottom left is 'InstallAnywhere by Macrovision'. At the bottom right are 'Cancel', 'Previous', and 'Next' buttons.

- ii Click on the Next button.

- iii Click on the Add button shown in Figure 4-96 to specify an auxiliary server. The form shown in Figure 4-97 opens.

Figure 4-96 Auxiliary Servers



**Note —** To minimize network latency between this main server and the Preferred auxiliary server that you specify in this step, specify an auxiliary server in the local network rather than an auxiliary server that is geographically remote.

Figure 4-97 Auxiliary Server Configuration

- iv Configure the following parameters:
- IP Address (the IP address of the auxiliary server)
  - Port (typically 12800)
  - Type (Preferred or Reserved)
- v Click on the OK button to save the information and close the form.
- vi Repeat steps 65 iii to v to specify an additional auxiliary server, if required.

- vii If “Enable Call Trace Collection on Auxiliary Servers” is selected in step 65 i, click on the “Configure Call Trace Auxiliary Servers” button shown in Figure 4-96. Otherwise, go to step 66.
- viii The form shown in Figure 4-98 opens. Select a preferred auxiliary server in the upper left panel and the associated reserved auxiliary server in the lower left panel, and click on the “Make Pair from Selected” button. The auxiliary servers move to the list on the right side of the form.

Figure 4-98 Configure Call Trace Auxiliary Servers

Select one preferred server and one reserved server from the left side. Add those servers to the right side using the 'Make Pair from Selected' button.

| Preferred Auxiliary Servers |       |
|-----------------------------|-------|
| IP Address                  | Port  |
| 10.1.1.1                    | 12800 |
| 10.1.1.2                    | 12800 |
| 10.1.1.3                    | 12800 |

| Reserved Auxiliary Servers |       |
|----------------------------|-------|
| IP Address                 | Port  |
| 10.2.2.1                   | 12800 |
| 10.2.2.2                   | 12801 |
| 10.2.2.3                   | 12800 |

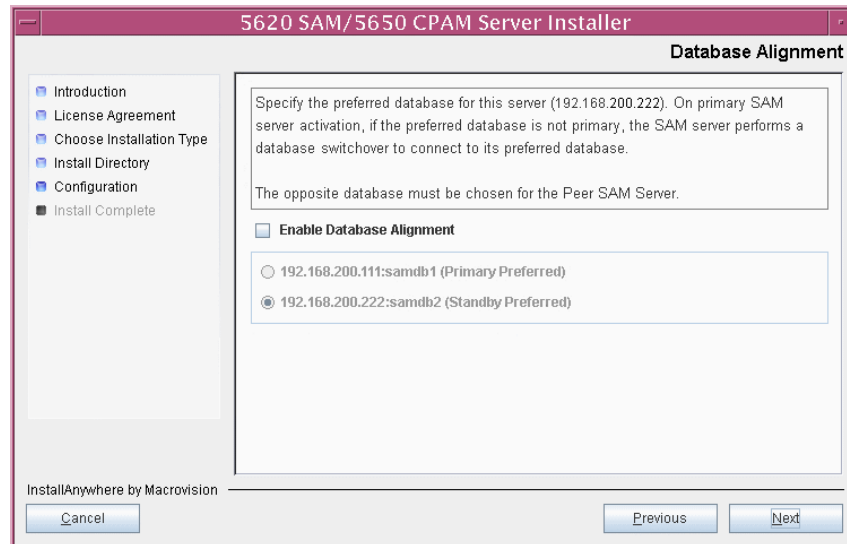
| Server Pairs        |                    |
|---------------------|--------------------|
| Preferred Server IP | Reserved Server IP |

Make Pair from Selected      Remove Selected Pair      OK      Cancel

- ix Repeat step 65 viii to configure another call-trace auxiliary server pair, if required.
- 66 Click on the Next button.

- 67 If you select the Enable Database Alignment parameter shown in Figure 4-99, you must specify the preferred database of this main server. Click on the Next button.

Figure 4-99 Database Alignment



68 Perform the following steps.

- i Configure the following parameters shown in Figure 4-100:
  - Server Domain Name (typically 5620sam)  
This is a value that uniquely identifies the 5620 SAM server cluster.
  - Use Hostname for Communication  
Select this parameter if the main server is to use multiple interfaces for GUI and OSS client communication.

Figure 4-100 Main Server Configuration for Clients

**5620 SAM/5650 CPAM Server Installer**

**Main Server Configuration for Clients**

Enter the network interface information that the GUI and OSS clients require to communicate with this 5620 SAM main server.

If multiple addresses are to be used for communication with GUI clients, OSS clients, and auxiliary servers, a hostname must be provided for the Public Hostname field.

Server Domain Name

☐ Use Hostname for Communication (recommended if NAT is used)

☒ NAT (network address translation) Used

Private IP (accessible only by this server)

Public IP (accessible to clients)

EJB JNDI Server port

EJB JMS Server port

☐ Enable 5670 RAM

☐ Enable 3GPP OSS Interface

InstallAnywhere by Macrovision

- ii If you select Use Hostname for Communication, go to step 68 vi.
- iii Configure the following parameters:
  - NAT (network address translation) Used
  - Private IP (accessible only by this server)
  - Public IP (accessible to clients)
  - EJB JNDI Server port (typically 1099)
  - EJB JMS Server port (typically 8093)
  - Enable 5670 RAM
  - Enable 3GPP OSS Interface



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 4-100.

- iv Click on the Next button.

- v Go to step 70.
- vi Configure the following parameters shown in Figure 4-101:
  - NAT (network address translation) Used
  - Private IP (accessible only by this server)
  - Public Hostname
  - EJB JNDI Server port (typically 1099)
  - EJB JMS Server port (typically 8093)
  - Enable 5670 RAM
  - Enable 3GPP OSS Interface



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 4-101.

Figure 4-101 Main Server Configuration for Clients

5620 SAM/5650 CPAM Server Installer

**Main Server Configuration for Clients**

Enter the network interface information that the GUI and OSS clients require to communicate with this 5620 SAM main server.

If multiple addresses are to be used for communication with GUI clients, OSS clients, and auxiliary servers, a hostname must be provided for the Public Hostname field.

Server Domain Name

☒ Use Hostname for Communication (recommended if NAT is used)

☒ NAT (network address translation) Used

Private IP (accessible only by this server)

Public Hostname

EJB JNDI Server port

EJB JMS Server port

☐ Enable 5670 RAM

☐ Enable 3GPP OSS Interface

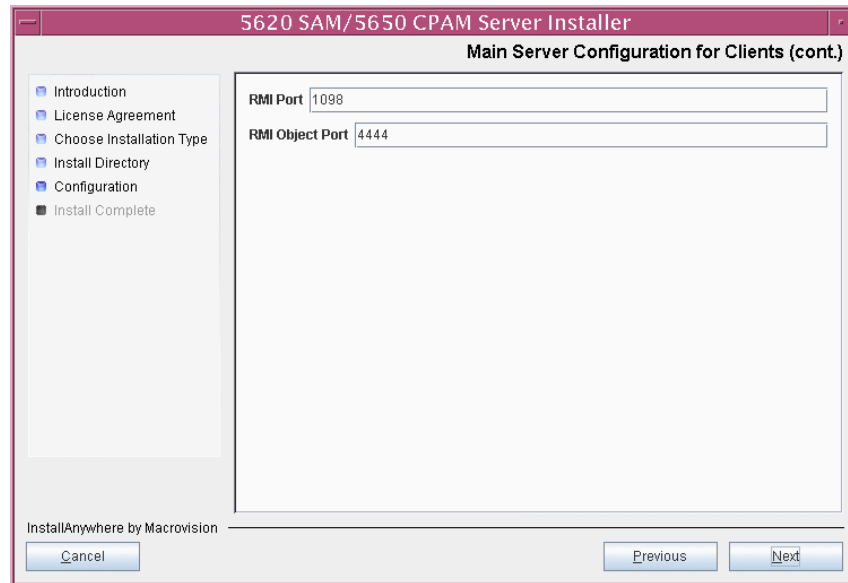
InstallAnywhere by Macrovision

- vii Click on the Next button.

69 Configure the following parameters shown in Figure 4-102, then click on the Next button:

- RMI Port (typically 1098)
- RMI Object Port (typically 4444)

Figure 4-102 Main Server Configuration for Clients (cont.)





70 Configure the following parameters shown in Figure 4-103:

- NAT (network address translation) Used  
Select this parameter only if NAT is to be used between this 5620 SAM server and the peer 5620 SAM server.
- Private IP (accessible only by this server)
- Public IP (accessible to peer server)
- High Available JNDI Port (typically 1100)
- TCP Port Cluster Number (typically 11800)



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 4-103.

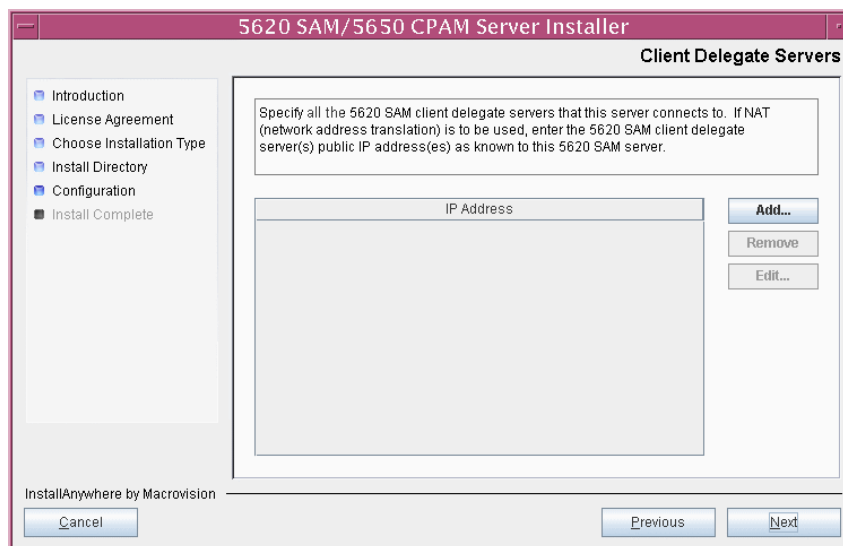
Figure 4-103 Main Server Configuration for Peer Server

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window. The title bar reads '5620 SAM/5650 CPAM Server Installer'. The main window title is 'Main Server Configuration for Peer Server'. On the left is a navigation pane with the following items: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (selected), and Install Complete. The main area contains a text box with the instruction: 'Enter the network interface information that this 5620 SAM main server requires to communicate with the peer server.' Below this are several configuration options: a checked checkbox for 'NAT (network address translation) Used', a 'Private IP (accessible only by this server)' dropdown menu showing '192.168.200.111', a 'Public IP (accessible to peer server)' text field with a yellow background, a 'High Available JNDI Port' text field with '1100', and a 'TCP Port Cluster Number' text field with '11800'. At the bottom left is the text 'InstallAnywhere by Macrovision' and a 'Cancel' button. At the bottom right are 'Previous' and 'Next' buttons.

- 71 The panel in Figure 4-104 is displayed if you select “Client Delegate Server Supported” in step 61. Otherwise, go to step 72.

Click on the Add button to specify the client delegate server IP addresses, as required. If NAT is used between the 5620 SAM server and client delegate servers, specify the public IP address. Click on the Next button.

Figure 4-104 Client Delegate Servers



72 Perform one of the following to specify where the 5620 SAM user documentation is to be stored.

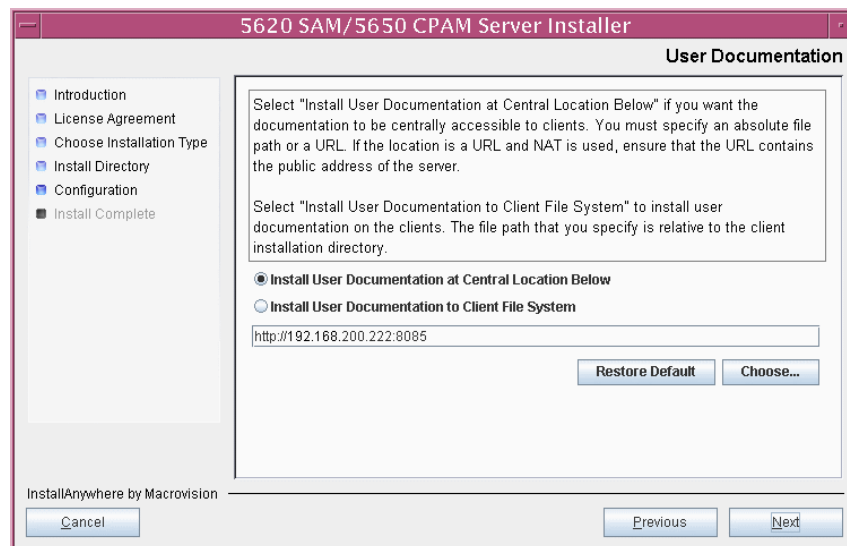
- a To store the documentation in a central location that is available to all clients, perform the following steps.
  - i Select the “Install User Documentation at Central Location Below” parameter, as shown in Figure 4-105.
  - ii To accept the default user documentation location that is displayed, go to step 73.



**Note —** If NAT is used between the 5620 SAM server and clients, you must update the default location using the public IP address of the server, or the documentation is not accessible to clients.

- iii Specify a location for the 5620 SAM user documentation in the field below the parameters.
- iv Copy the contents of the User\_Documentation directory on the new 5620 SAM software DVD-ROM to the location specified in step iii.
- v Click on the Next button. A dialog box appears.
- vi Click on the OK button.

Figure 4-105 User Documentation



- b To store a copy of the documentation on the client file system, perform the following steps.

- i Select the “Install User Documentation to Client File System” parameter shown in Figure 4-105.
- ii Specify a file path relative to the 5620 SAM client installation directory. The path must not contain a leading slash.

For example, if the installation directory is /opt/5620sam/client and you specify Documents as the location, the documentation is installed in the following directory:

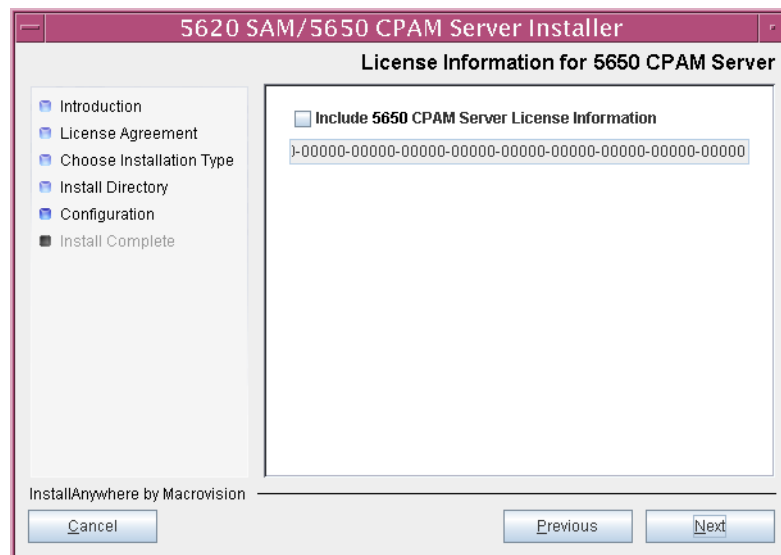
/opt/5620sam/client/Documents



**Note —** The 5620 SAM client uninstaller cannot remove the documentation unless it is installed below the nms directory in the 5620 SAM client installation directory, for example, /opt/5620sam/client/nms/Documents.

- 73 Click on the Next button.
- 74 Specify whether the 5620 SAM configuration includes a 5650 CPAM server, as shown in Figure 4-106. If it does, enter the 5650 CPAM license key provided by from Alcatel-Lucent. Include the dashes in the key. Click on the Next button.

Figure 4-106 License Information for 5650 CPAM Server



75 Configure the following parameters shown in Figure 4-107, then click on the Next button:

- NAT (network address translation) Used  
Select this parameter only if NAT is to be used between the 5620 SAM main server and the managed network.
- SNMP Trap Receiving IPv4 Address
- SNMP Trap Receiving IPv6 Address
- SNMP Trap Receiving Port (typically 162)
- Trap Log Id (typically 98)

Figure 4-107 SNMP Configuration

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window with the 'SNMP Configuration' tab selected. On the left is a navigation pane with links: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration, and Install Complete. The main area contains a text box with instructions: 'If NAT (network address translation) is to be used, enter the 5620 SAM main server's public IP address as known to the devices within the managed network.' Below this are two unchecked checkboxes: 'NAT (network address translation) Used' and 'IPv6 Address Used'. There are four input fields: 'SNMP Trap Receiving IPv4 Address' (containing '192.168.200.122'), 'SNMP Trap Receiving IPv6 Address' (empty), 'SNMP Trap Receiving Port' (containing '162'), and 'Trap Log Id' (containing '98'). At the bottom left is the text 'InstallAnywhere by Macrovision' and a 'Cancel' button. At the bottom right are 'Previous' and 'Next' buttons.

76 Configure the following parameters shown in Figure 4-108, then click on the Next button:

- Peer Server IP Address (original primary server station IP address)
- Peer Server Trap Log Id (typically 98)
- Peer Server SNMP Trap Receiving IPv4 Address
- Peer Server SNMP Trap Receiving IPv6 Address
- Peer Server SNMP Trap Receiving Port (typically 162)
- Peer Server TCP Port Cluster Number (typically 11800)



**Note** — The peer is the other 5620 SAM server station that is the standby server after the upgrade.

Figure 4-108 Peer Main Server Configurations

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window with the 'Peer Main Server Configurations' tab selected. On the left is a navigation pane with the following items: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (highlighted), and Install Complete. The main area contains a text box with instructions: 'If NAT (network address translation) is to be used, enter the 5620 SAM peer server's public IP address as known to the 5620 SAM server. Also enter the 5620 SAM peer server's public IP address as known to the devices within the managed network.' Below this are six input fields: 'Peer Server IP Address' (empty), 'Peer Server Trap Log Id' (98), 'Peer Server SNMP Trap Receiving IPv4 Address' (empty), 'Peer Server SNMP Trap Receiving IPv6 Address' (empty), 'Peer Server SNMP Trap Receiving Port' (162), and 'Peer Server TCP Port Cluster Number' (11800). At the bottom are 'Cancel', 'Previous', and 'Next' buttons. The footer text reads 'InstallAnywhere by Macrovision'.

77 If you selected the Use Hostname for Communication parameter in step 68, go to step 79.

78 Configure the following parameters shown in Figure 4-109, then click on the Next button:

- 5620 SAM Peer Server IP Address (new standby server station IP address)
- 5620 SAM JNDI High Available Peer Server Port (typically 1100)
- 5620 SAM JNDI Peer Server Port (typically 1099)

Figure 4-109 Peer Main Server Configurations (cont.)

**5620 SAM/5650 CPAM Server Installer**

**Peer Main Server Configurations (cont.)**

Enter the IP address of the network interface the GUI and OSS clients require to communicate with the peer server. If NAT (network address translation) is to be used, specify the public IP address as known to the 5620 SAM clients.

If multiple addresses are to be used for communication with GUI clients, OSS clients, and auxiliary servers, a hostname must be provided for the 5620 SAM Peer Server Hostname field.

5620 SAM Peer Server IP Address

5620 SAM JNDI High Available Peer Server Port

5620 SAM JNDI Peer Server Port

InstallAnywhere by Macrovision

- 79 Configure the following parameters shown in Figure 4-110, then click on the Next button:
- 5620 SAM Peer Server Hostname
  - 5620 SAM JNDI High Available Peer Server Port (typically 1100)
  - 5620 SAM JNDI Peer Server Port (typically 1099)

Figure 4-110 Peer Main Server Configurations (cont.)

**5620 SAM/5650 CPAM Server Installer**

**Peer Main Server Configurations (cont.)**

Enter the IP address of the network interface the GUI and OSS clients require to communicate with the peer server. If NAT (network address translation) is to be used, specify the public IP address as known to the 5620 SAM clients.

If multiple addresses are to be used for communication with GUI clients, OSS clients, and auxiliary servers, a hostname must be provided for the 5620 SAM Peer Server Hostname field.

5620 SAM Peer Server Hostname

5620 SAM JNDI High Available Peer Server Port

5620 SAM JNDI Peer Server Port

InstallAnywhere by Macrovision

- 80 If you require 5620 SAM client navigation from a 5620 NM system, select the “Enable Navigation from External Systems” parameter shown in Figure 4-111 and specify the TCP port that the client is to use for accepting navigation requests. Click on the Next button.

Figure 4-111 Navigation from External Systems

**5620 SAM/5650 CPAM Server Installer**

**Navigation from External Systems**

Select this option to enable GUI navigation from a 5620 NM system.

☐ Enable Navigation from External Systems

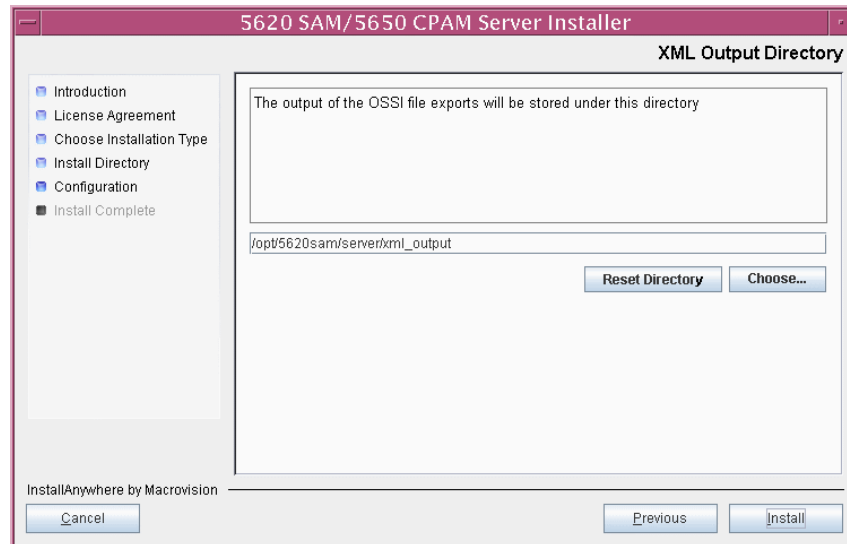
TCP port for accepting GUI navigation requests

InstallAnywhere by Macrovision



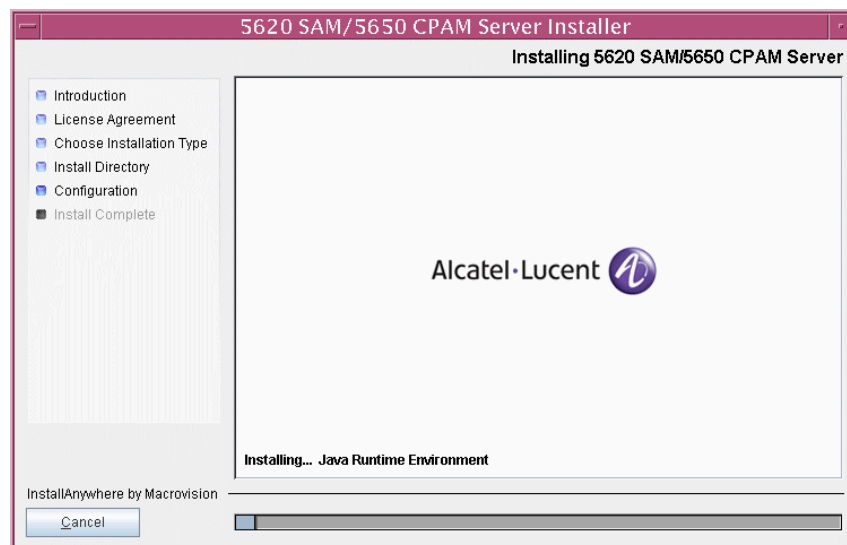
- 81 Specify an OSS XML output location (typically /opt/5620sam/server/xml\_output), as shown in Figure 4-112. Click on the Install button to begin the server upgrade.

Figure 4-112 XML Output Directory



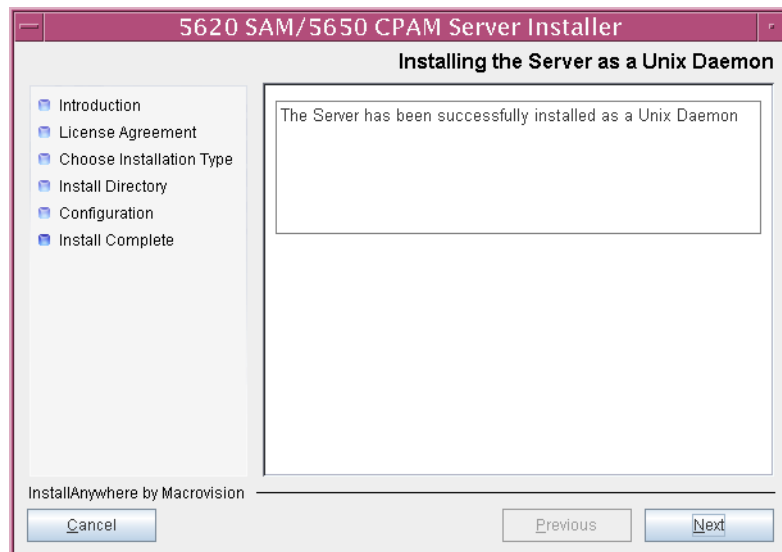
The next panel displays upgrade progress, as shown in Figure 4-113.

Figure 4-113 Installing 5620 SAM/5650 CPAM Server



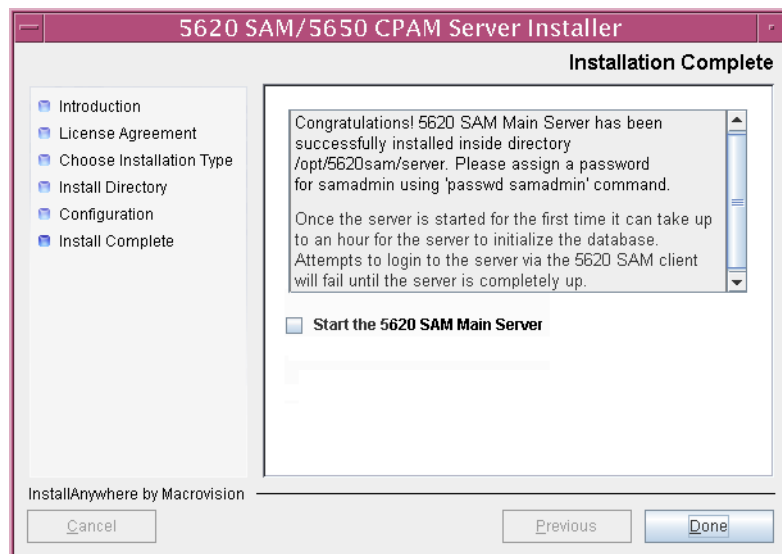
- 82 As shown in Figure 4-114, the 5620 SAM server is installed as a UNIX daemon. Click on the Next button.

Figure 4-114 Installing the server as a Unix Daemon



- 83 When the server upgrade is complete, ensure that the "Start the 5620 SAM Main Server" parameter is not selected, as shown in Figure 4-115.

Figure 4-115 Installation Complete



This server is the new primary main server.

- 84 View the panel text to see whether it states that you must assign a password to samadmin, as shown in Figure 4-115. This information is required in step 86.

- 85 Click on the Done button to close the server installer.
- 86 If you are upgrading from 5620 SAM Release 6.0, the installer creates a user account called samadmin for 5620 SAM system administration.

If you must assign a password to samadmin, as determined in step 84, perform the following steps.

Perform the following steps to assign a new samadmin password.

- i Enter the following at the CLI prompt:

```
passwd samadmin
```

The following prompt is displayed:

```
New Password:
```

- ii Enter the new password and press ↵.

The following prompt is displayed:

```
Confirm New Password:
```

- iii Enter the new password again and press ↵. The password is changed.
- iv Record the new password and store it in a secure location.
- v Leave the console window open for later use.

- 87 If the 3GPP OSS interface is enabled in step 68, perform the following steps.

- i Open the *path/nms/cnbi/home/config/cnbi.properties* file using a plain-text editor

where *path* is the 5620 SAM main server installation location, typically *opt/5620sam/server*

- ii Locate the following line:

```
CNBI.SAMO.USER=
```

- iii Edit the line to read:

```
CNBI.SAMO.USER=3GPP_OSS_user_name
```

where *3GPP\_OSS\_user\_name* is the user name that OSS applications must send in requests to the interface

- iv Locate the following line:

```
CNBI.SAMO.PASSWORD=
```

- v Edit the line to read:

```
CNBI.SAMO.PASSWORD=3GPP_OSS_password
```

where *3GPP\_OSS\_password* is the MD5-encrypted user password that OSS applications must send in requests to the interface

### Configure communication security for new primary main server

88 If other components in the 5620 SAM system use SSL or HTTPS to communicate with this main server, you must reconfigure SSL, and HTTPS, if required, on the main server interfaces, before the main server can communicate with the other components. The interfaces that may require reconfiguration may include the following:

- the JGroups interface used for the other main server
- the EJB interface used for the single-user 5620 SAM GUI clients and client delegate servers
- the JMS interface used for the single-user 5620 SAM GUI clients, OSS clients, client delegate servers and auxiliary servers
- the HTTP interface used for the single-user 5620 SAM GUI clients and client delegate servers
- the HTTP interface used for the 5620 SAM OSS clients



**Note** — A 5620 SAM software upgrade removes an SSL or HTTPS configuration on a 5620 SAM component. If a component uses SSL or HTTPS before an upgrade, you must enable SSL, and HTTPS, if required, after the upgrade. See the *5620 SAM User Guide* for information about configuring SSL and HTTPS for 5620 SAM components.

### Upgrade original standby auxiliary servers

89 If the 5620 SAM deployment contains auxiliary servers, perform Procedure 4-6 on each preferred and reserved auxiliary server of the original standby main server to upgrade the auxiliary server software.



**Note** — Do not start the auxiliary servers immediately after you upgrade them; they are started later in this procedure.

### Stop original primary main server

90 Stop the 5620 SAM server application on the original primary main server station.



**Note** — Because the CLI prompts for the samadmin and root-equivalent users differ, no CLI prompts are shown in the step text.

- i Log in to the original primary main server station as the appropriate user:
  - If you are upgrading from 5620 SAM Release 6.1 or later, you must log in as the samadmin user.
  - If you are upgrading from 5620 SAM Release 6.0, you must log in as a root or root-equivalent user.
- ii Open a console window.

- iii Enter the following at the CLI prompt to change to the server binary directory:

```
cd path/nms/bin ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

- iv Enter the following at the CLI prompt to stop the 5620 SAM server software:

```
./nmsserver.bash stop ↵
```

- v Enter the following at the CLI prompt to display the 5620 SAM server status:

```
./nmsserver.bash appserver_status ↵
```

The command displays a status message.

- vi The 5620 SAM server is stopped when the command displays the following status message:

```
Application Server is stopped
```

If the command displays a different message, wait 5 m and repeat step 90 v. Do not proceed to the next step until the server is stopped.



**Note** — This is the beginning of the network management outage.

### Disable original primary server daemon

- 91 Disable the 5620 SAM server startup daemon on the original primary server station. This ensures that the 5620 SAM server does not automatically start in the event of a power disruption during the upgrade.

- i Log in to the original primary server station as a user with root or root-equivalent privileges.
- ii Open a console window.
- iii Enter the following at the CLI prompt to change to the /etc/rc3.d directory:

```
cd /etc/rc3.d ↵
```

- iv Enter the following at the CLI prompt to disable the 5620 SAM server daemon by renaming it:

```
mv S975620SAMServerWrapper
inactive.S975620SAMServerWrapper ↵
```

**Stop original primary database**

92 Stop the 5620 SAM database application on the original primary database station.

- i Log in to the original primary database station as a user with root or root-equivalent privileges.
- ii Open a console window.
- iii Enter the following at the CLI prompt to change to the /etc/rc3.d directory:

```
cd /etc/rc3.d ↵
```

- iv Enter the following at the CLI prompt to stop the Oracle proxy daemon:

```
./S965620SAMOracleProxyWrapper stop ↵
```

- v Enter the following at the CLI prompt to stop the 5620 SAM database daemon:

```
./S95db5620sam stop ↵
```

Do not proceed until the command displays the following message:

Done

**Disable original primary database daemons**

93 Disable the 5620 SAM Oracle proxy and database startup daemons on the original primary database station. This ensures that the original primary 5620 SAM database does not automatically start in the event of a power disruption during the upgrade.

- i Log in to the database station as a user with root or root-equivalent privileges.
- ii Open a console window.
- iii Enter the following at the CLI prompt to change to the /etc/rc3.d directory:

```
cd /etc/rc3.d ↵
```

- iv Enter the following at the CLI prompt to disable the Oracle database daemon by renaming it:

```
mv S95db5620sam inactive.S95db5620sam ↵
```

- v Enter the following at the CLI prompt to disable the Oracle proxy daemon by renaming it:

```
mv S965620SAMOracleProxyWrapper
inactive.S965620SAMOracleProxyWrapper ↵
```

## Stop original primary auxiliary servers

- 94 If the 5620 SAM deployment contains auxiliary servers, perform the following steps to stop the auxiliary server software on each preferred or reserved auxiliary server of the original primary main server.



**Note —** Because the CLI prompts for the samadmin and root-equivalent users differ, no CLI prompts are shown in the step text.

- i Log in to the auxiliary server station as the appropriate user:
  - If you are upgrading from 5620 SAM Release 6.1 or later, you must log in as the samadmin user.
  - If you are upgrading from 5620 SAM Release 6.0, you must log in as a root or root-equivalent user.
- ii Enter the following at the CLI prompt:

```
path/nms/bin/auxnmserver.bash auxstop ↵
```

where *path* is the 5620 SAM auxiliary server installation location, typically /opt/5620sam/auxserver

The 5620 SAM auxiliary server stops.

## Start new primary main server

- 95 Perform the following steps to start the new primary 5620 SAM main server.

- i Enter the following at the CLI prompt to switch to the samadmin user on the new primary main server station:

```
su - samadmin ↵
```

- ii Enter the following at the CLI prompt to change to the server binary directory:

```
bash$ cd path/nms/bin ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

- iii Enter the following at the CLI prompt to start the 5620 SAM server software:

```
bash$./nmserver.bash start ↵
```

- iv Enter the following at the CLI prompt:

```
bash$ path/nms/bin/nmserver.bash -s nms_status ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

The command returns server status information.

If the new primary main server is not completely started, the first line of status information is the following:

```
Main Server is not ready...
```

The new primary 5620 SAM server is completely started when the command returns the following line of output:

```
-- Primary server is UP
```

- v If the command output indicates that the server is not completely started, wait five minutes and enter the command again to check the output.



**Note** — Do not proceed to the next step until the server is completely started.

### Start new primary auxiliary servers

- 96 Perform the following steps on each preferred and reserved 5620 SAM auxiliary server of the new primary main server.

- i Log in to the auxiliary server station as the samadmin user.
- ii Open a console window.
- iii Enter the following at the CLI prompt to change to the server binary directory:

```
bash$ cd path/nms/bin ↵
```

where *path* is the 5620 SAM auxiliary server installation location, typically /opt/5620sam/auxserver

- iv Enter the following at the CLI prompt to start the 5620 SAM server software:

```
bash$./auxnmserver.bash auxstart ↵
```

The 5620 SAM auxiliary server starts. Initial server startup can take twenty minutes or more.

### Upgrade or install 5620 SAM client

- 97 Perform one of the following to upgrade or install the 5620 SAM client software on a Solaris station, if required.



**Note** — You must specify the IP address of the current standby 5620 SAM server as the primary main server IP address when you install or upgrade the client software. The current standby server is the new primary server after the upgrade.

- a Perform Procedure [3-2](#) or [3-3](#) to install a single-user client.
- b Perform Procedure [3-4](#) to install a client delegate server.



- c Perform Procedure 4-3 to upgrade a single-user client.
  - d Perform Procedure 4-4 to upgrade a client delegate server.
- 98 Perform one of the following to upgrade or install the 5620 SAM client software on a Windows station, if required.



**Note —** You must specify the IP address of the current standby 5620 SAM server as the primary main server IP address when you install or upgrade the client software. The current standby server is the new primary server after the upgrade.

- a Perform Procedure 2-3 or 2-4 to install a single-user client.
  - b Perform Procedure 2-9 to upgrade a single-user client.
- 99 If the 3GPP OSS interface is enabled in step 68, perform the following steps.
- i Log in to a 5620 SAM GUI client as the admin user.
  - ii Create a user account for 3GPP OSS interface access. Observe the following when you create the account:
    - The user name must be the user name specified in step 87.
    - The password must be the password specified in step 87.
    - The user account requires full permissions on the fm and oss packages.

See the *5620 SAM User Guide* for information about creating 5620 SAM user accounts.

The next section of the procedure describes the testing of the 5620 SAM system using a 5620 SAM client.

#### Test 5620 SAM system using new client

- 100 When the new primary server is started, use the newly installed or upgraded client to perform sanity testing of the new primary 5620 SAM server and database.

See the *5620 SAM User Guide* for information about client operation.

If you need to back out of the upgrade and return the original primary server and database to service, you can do so by stopping the new primary server and database and restarting the original primary server and database applications.

#### Uninstall original primary database

- 101 Log in to the original primary database station as a user with root or root-equivalent privileges.
- 102 Open a console window.

103 Enter the following at the CLI prompt to switch to the Oracle management user:

```
su - Oracle_management_user_name ↵
```

where *Oracle\_management\_user\_name* is the name of the UNIX account with Oracle management privileges, typically oracle

104 Enter the following at the CLI prompt to open the 5620 SAM uninstaller:

```
bash$
path/install/Uninstaller/Uninstall_5620_SAM_Database_Configurator ↵
```

where *path* is the 5620 SAM database installation location, typically /opt/5620sam/samdb

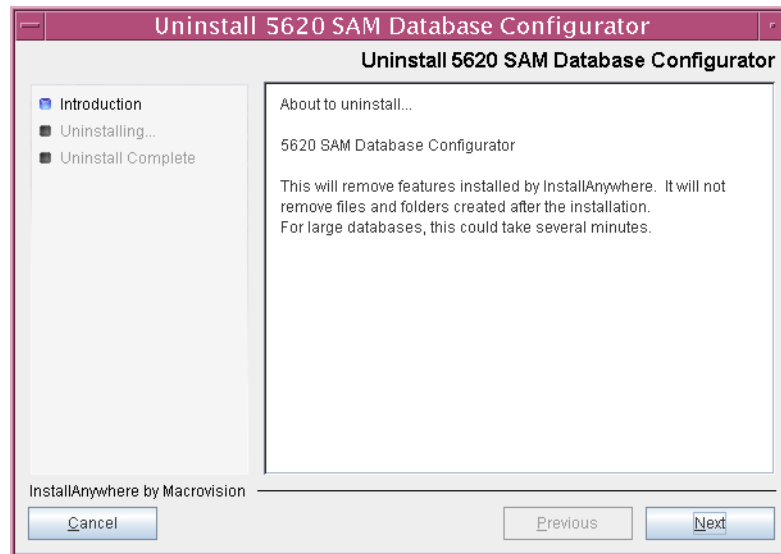
The splash screen shown in Figure 4-116 opens. The splash screen appearance depends on which 5620 SAM release you are uninstalling.

Figure 4-116 5620 SAM Uninstaller



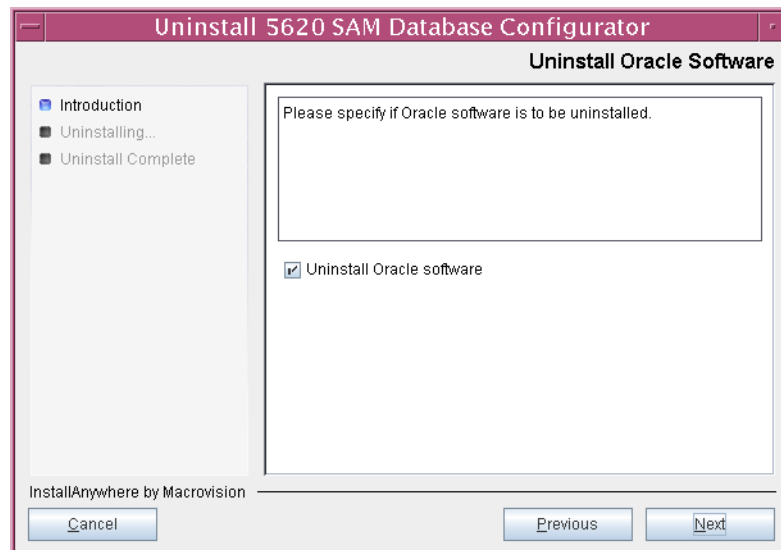
- 105 The 5620 SAM database uninstaller opens, as shown in Figure 4-117. The left pane indicates uninstallation progress. The right pane indicates the operations that are to take place. Click on the Next button.

Figure 4-117 Uninstall 5620 SAM Database Configurator



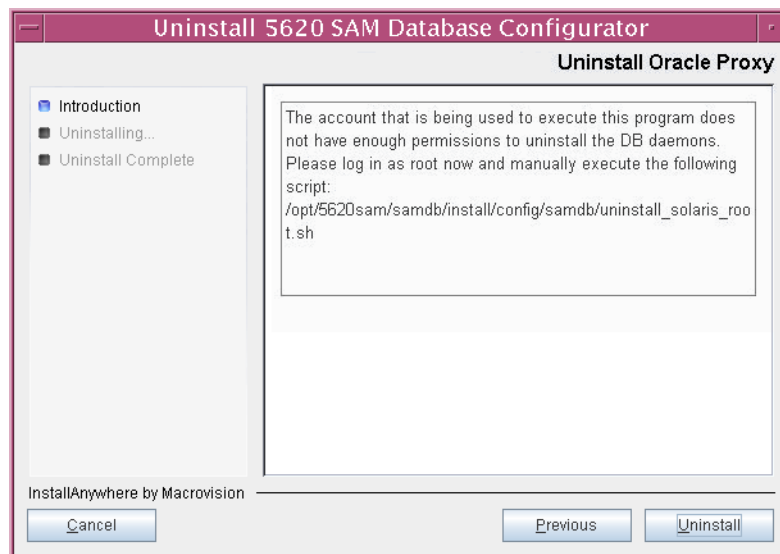
- 106 A 5620 SAM standby database upgrade requires the removal of the previously installed Oracle software. Select the “Uninstall Oracle software” parameter, as shown in Figure 4-118, and click on the Next button.

Figure 4-118 Uninstall Oracle Software



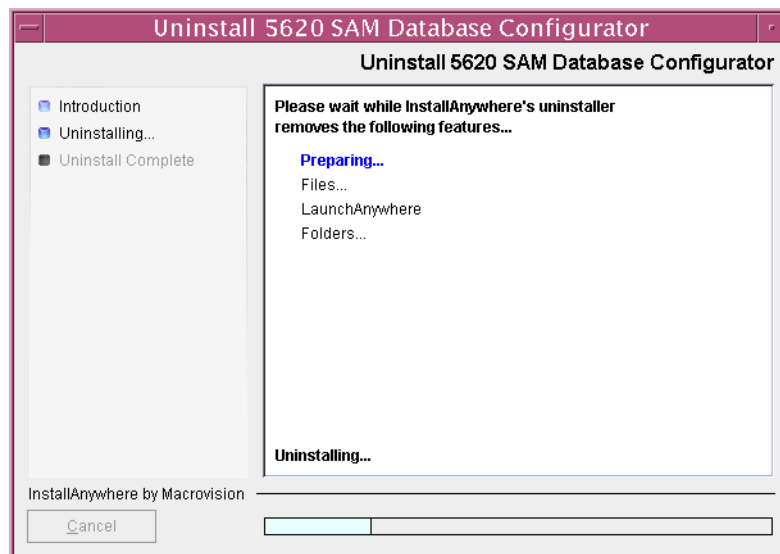
- 107 As shown in Figure 4-119, you are prompted to run a script that enables the uninstallation of the database daemons. Open a separate console window and run the script.

Figure 4-119 Uninstall Oracle Proxy



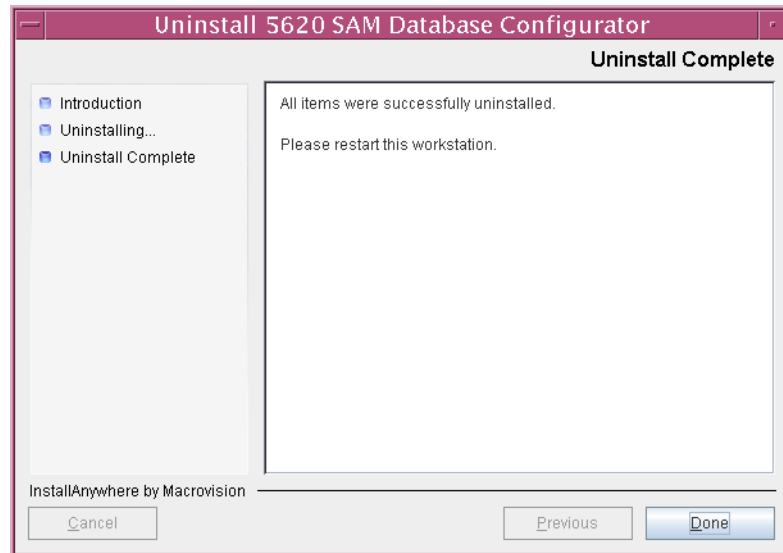
- 108 When the script execution is complete, click on the OK button.
- 109 Click on the Uninstall button shown in Figure 4-119 to begin the uninstallation.
- 110 As shown in Figure 4-120, the uninstaller begins to remove files and directories from the original primary database station.

Figure 4-120 Uninstall 5620 SAM Database Configurator



- 111 When database uninstallation is complete, as shown in Figure 4-121, click on the Done button to close the database uninstaller.

Figure 4-121 Uninstall Complete



The next section of the procedure describes the installation of the new standby (original primary) 5620 SAM database. 5620 SAM database installation requires root-equivalent and Oracle management user privileges.

### Install new standby database

- 112 Before you perform a 5620 SAM database installation on Solaris, you must run a pre-installation script. This script configures the UNIX account for the Oracle management user and adds configuration information to the `/etc/system` file.



**Caution** — Ensure that you run only the pre-installation script that is on the new 5620 SAM software DVD-ROM. Using a different version of the script may cause the database installation to fail.

Enter the following at the CLI prompt to switch to the root user:

```
bash$ su - ↵
```

- 113 Place the new 5620 SAM software DVD-ROM in a DVD-ROM drive.
- 114 Navigate to the DVD-ROM drive.

115 Perform one of the following to change to the appropriate Solaris directory.

- a On a Sun SPARC station, enter the following at the CLI prompt:

```
cd Solaris ↵
```

- b On a Sun X86-based station, enter the following at the CLI prompt:

```
cd Solarisx86 ↵
```

116 Enter the following at the CLI prompt:

```
./Oracle10g_PreInstall.sh ↵
```

The following prompt is displayed:

Please select between the following option:

- 1) NEW INSTALL OF 5620 SAM
- 2) UPGRADE OF 5620 SAM

117 Enter 1 ↵.

118 The script prompts you for the following Oracle management user information:

- the user group name (default is dba)
- the user name (default is oracle)
- the home directory (default is /opt/5620sam/oracle10r2)
- a password, if one of the following is true:
  - there is no password
  - there is a password, but you specify that you want to change it

Provide the information. The script updates the system configuration.



**Note 1** — To reduce the complexity of subsequent software upgrades and technical support activities, Alcatel-Lucent recommends that you press ↵ to accept the default value for each parameter.

**Note 2** — If you specify a value other than the default, you must record the value for use when the Oracle10g\_PreInstall.sh script is run during a software upgrade, or when the Oracle management user information is required by Alcatel-Lucent technical support.

**Note 3** — Running the script may generate messages that are similar to the following; these are not error messages and can be ignored.

- WARNING: Group dba already exists locally.
- WARNING: Oracle user with the specified name already exists locally.
- projadd: Duplicate project name "Oracle10R2"

119 When the script execution is complete, enter the following at the CLI prompt to reboot the new standby database station and put the system update into effect:

```
shutdown -y -i6 -g0 ↵
```

The new standby database station reboots.

120 After the new standby database station reboots, log in as the Oracle management user on the new standby database station.

121 Open a console window.

122 Navigate to the DVD-ROM drive that contains the new 5620 SAM software DVD-ROM.

123 Perform one of the following to open the 5620 SAM database installer.

a On a Sun SPARC station:

i Enter the following at the CLI prompt:

```
bash$ cd Solaris ↵
```

ii Enter the following at the CLI prompt:

```
bash$./DBConfig_SAM_8_0_revision.bin ↵
```

where

*revision* is the revision identifier, such as R1, R3, or another descriptor

b On a Sun X86-based station:

i Enter the following at the CLI prompt:

```
bash$ cd Solarisx86 ↵
```

ii Enter the following at the CLI prompt:

```
bash$./DBConfig_x86_SAM_8_0_revision.bin ↵
```

where

*revision* is the revision identifier, such as R1, R3, or another descriptor



**Note** — After the upgrade, the database on this station is the new standby database. Later in this procedure, the primary database is reinstantiated on this station.

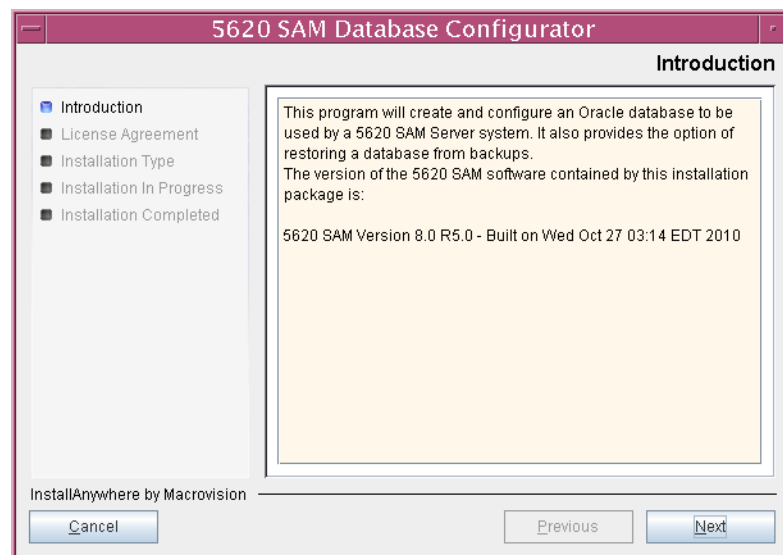
The splash screen shown in Figure 4-122 opens.

Figure 4-122 5620 SAM installer



- 124 The 5620 SAM database installer opens, as shown in Figure 4-123. The left pane indicates installation progress. The right pane displays release information about the software. Click on the Next button.

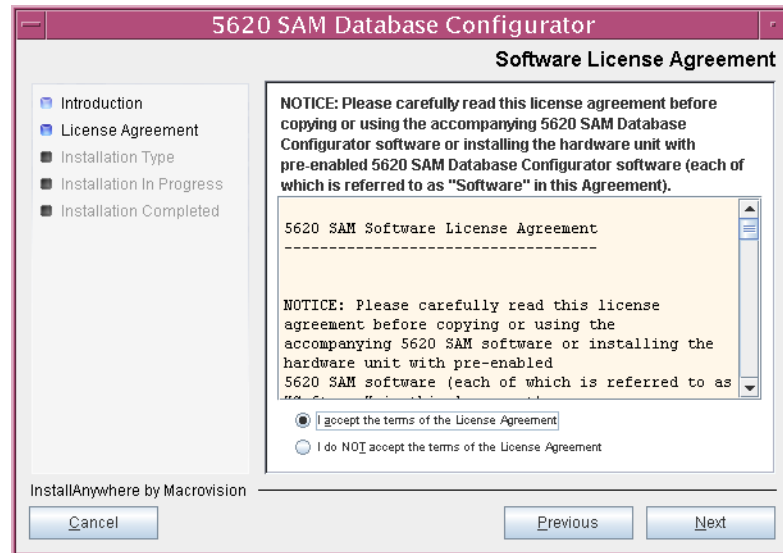
Figure 4-123 Introduction





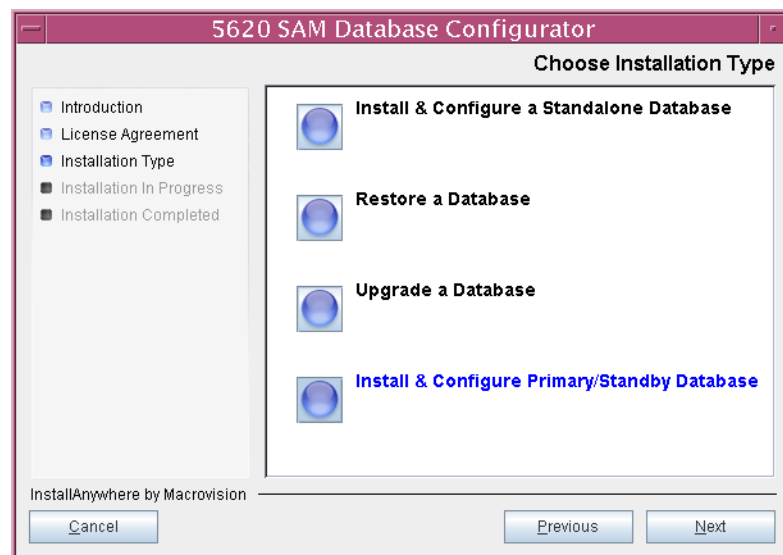
- 125 Review and accept the terms of the license agreement shown in Figure 4-124. Click on the Next button.

Figure 4-124 Software License Agreement



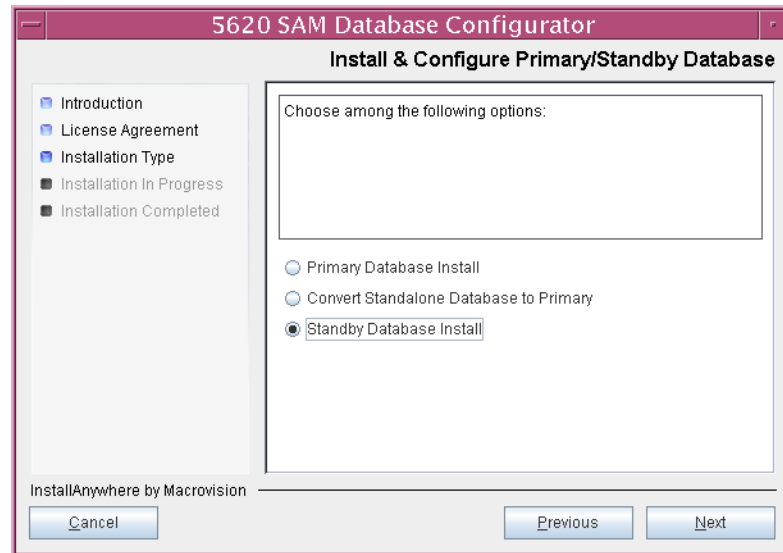
- 126 Select Install & Configure Primary/Standby Database, as shown in Figure 4-125. Click on the Next button.

Figure 4-125 Choose Installation Type



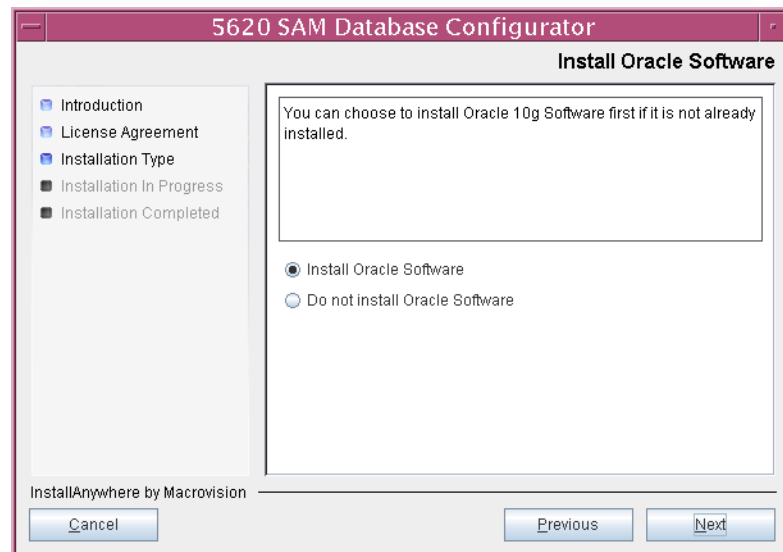
- 127 Select Standby Database Install, as shown in Figure 4-126. Click on the Next button.

Figure 4-126 Install & Configure Primary/Standby Database



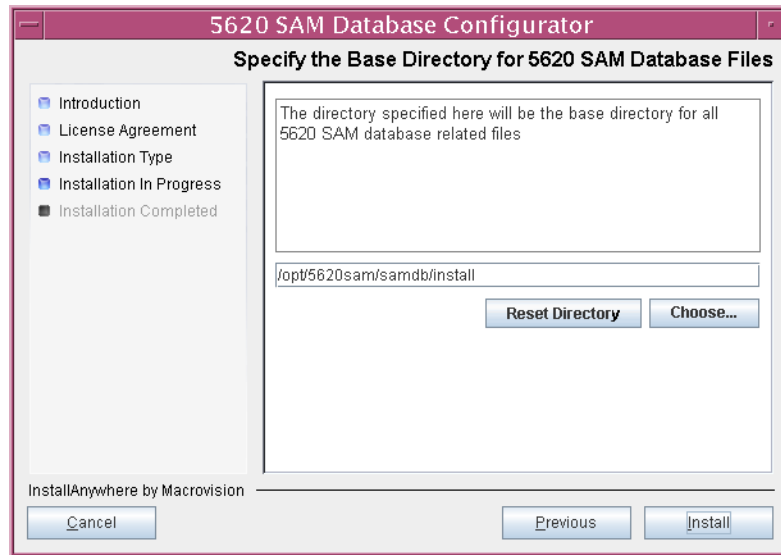
- 128 Select Install Oracle Software, as shown in Figure 4-127. Click on the Next button.

Figure 4-127 Install Oracle Software



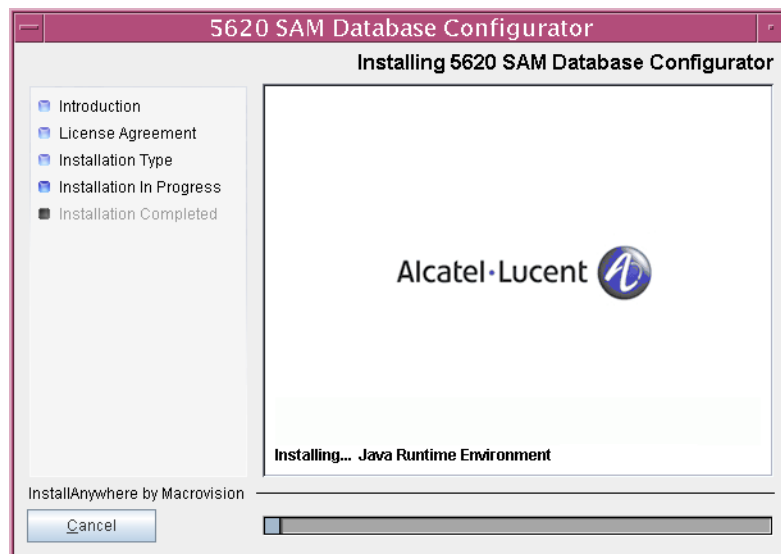
- 129 Specify the base directory for the standby 5620 SAM database software (typically /opt/5620sam/samdb/install), as shown in Figure 4-128. This directory must be the same one specified in step 26. Click on the Install button to begin the database software installation.

Figure 4-128 Specify the Base Directory for 5620 SAM Database Files



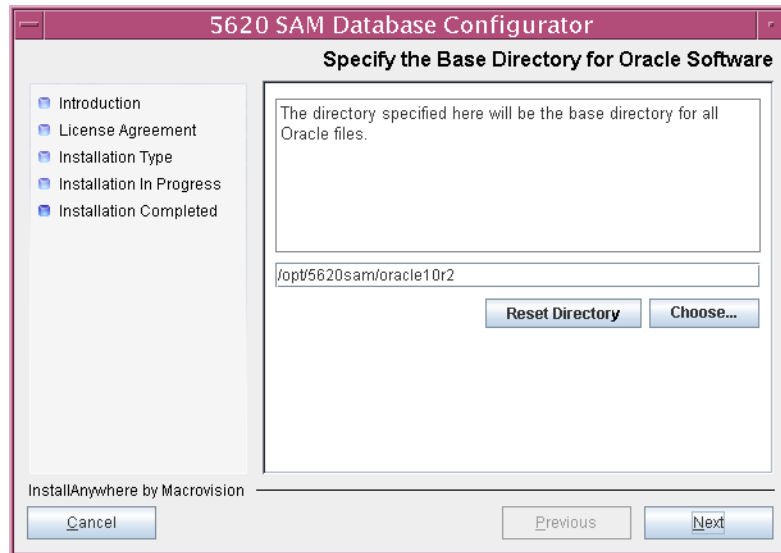
The installer prepares to install the database, as shown in Figure 4-129.

Figure 4-129 Installing 5620 SAM Database Configurator



- 130 The panel shown in Figure 4-130 displays the Oracle software installation directory, which cannot be changed. Click on the Next button.

Figure 4-130 Specify the Base Directory for Oracle Software



131 Perform the following steps when the panel in Figure 4-131 is displayed.

- i Open a separate console window.
- ii Enter the following at the CLI prompt to switch to the root user:
- iii Enter the following at the CLI prompt to run the Oracle pre-install script:

```
su -
```

```
path/install/config/orainstRoot.sh
```

where *path* is the 5620 SAM database installation location, typically /opt/5620sam/samdb

The script generates messages like the following:

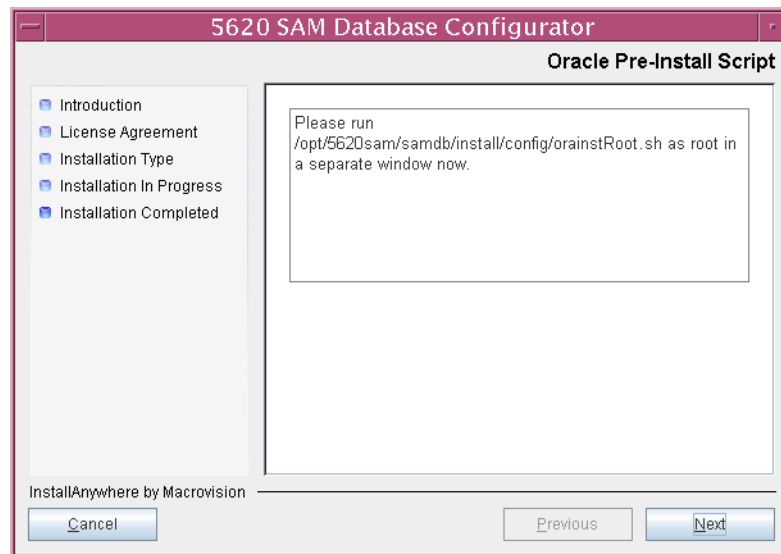
```
Creating the Oracle inventory pointer file
(/var/opt/oracle/oraInst.loc)
```

```
Creating the Oracle inventory directory
(/opt/5620sam/oracle10r2/oraInventory)
```

```
Changing groupname of /opt/5620sam/oracle10r2/oraInventory to
(dba).
```

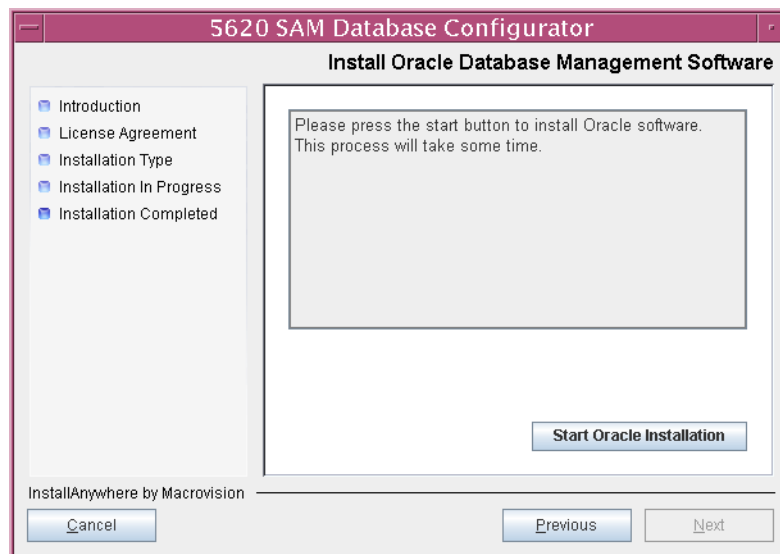
- iv When the script execution is complete, close the console window.
- v Click on the Next button.

Figure 4-131 Oracle Pre-Install Script



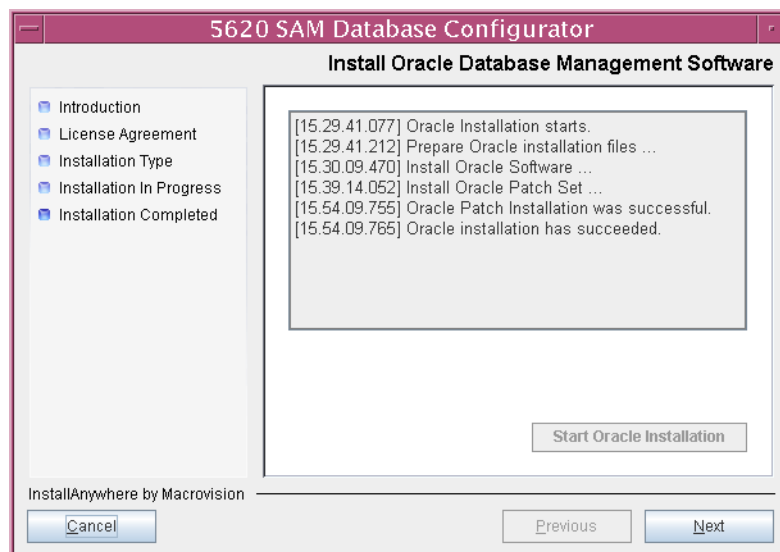
- 132 You are prompted to install Oracle software, as shown in Figure 4-132. This operation can take one hour or more. Click on the Start Oracle Installation button to begin the Oracle software installation.

Figure 4-132 Install Oracle Database Management Software



- 133 As shown in Figure 4-133, Oracle installation details are displayed as the installation progresses. When the installation is complete, click on the Next button.

Figure 4-133 Install Oracle Database Management Software



134 Perform the following steps when the panel in Figure 4-134 is displayed.

- i Open a separate console window.
- ii Enter the following at the CLI prompt to switch to the root user:
- iii Enter the following at the CLI prompt to run the Oracle post-install script:

```
su - ↵
```

```
path/install/config/orapostinstRoot.sh ↵
```

where *path* is the 5620 SAM database installation location, typically /opt/5620sam/samdb

The script generates messages like the following.

The following environment variables are set as:

```
ORACLE_OWNER= oracle
```

```
ORACLE_HOME=
```

```
/opt/5620sam/oracle10r2
```

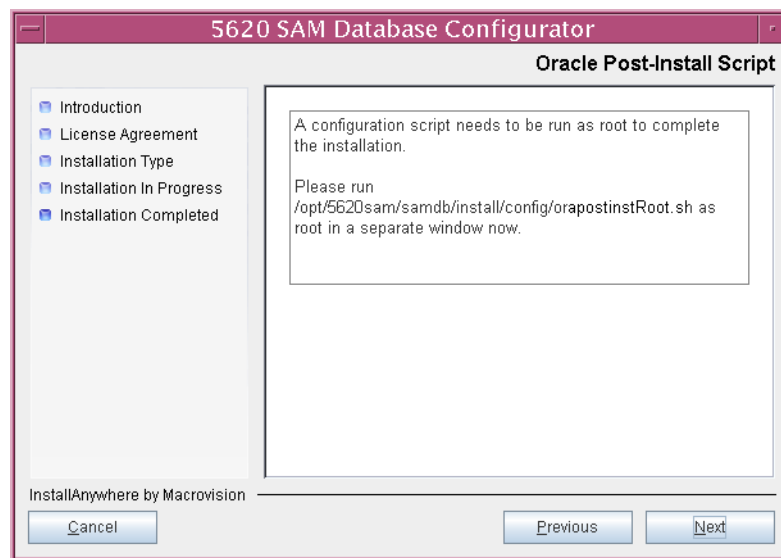
- iv The following prompt is displayed.

```
Enter the full pathname of the local bin directory:
[/usr/local/bin]:
```

Respond to the prompt. The default value is typically acceptable.

- v If you are prompted to overwrite an existing file, press ↵ to overwrite it.
- vi When the script execution is complete, close the console window.
- vii Click on the Next button.

Figure 4-134 Oracle Post-Install Script



135 Configure the parameters shown in Figure 4-135, then click on the Next button.

- NAT (network address translation) Used
- Public IP (accessible to servers)
- Private IP
- Database Proxy Port (typically 9002)



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected.

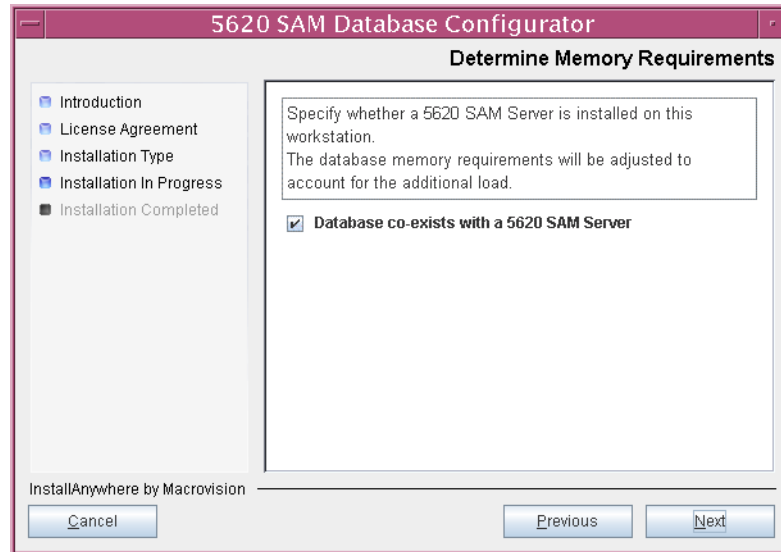
Figure 4-135 Standby Database Configuration Info

The screenshot shows the '5620 SAM Database Configurator' window with the 'Standby Database Configuration Info' tab selected. On the left is a navigation pane with five items: 'Introduction', 'License Agreement', 'Installation Type', 'Installation In Progress', and 'Installation Completed'. The main area contains instructions: 'Enter the IP address of the network interface the standby database will use to communicate with the server(s). If NAT (network address translation) is to be used, specify both the standby database's private and public IP addresses.' Below this is a checkbox labeled 'NAT (network address translation) Used' which is checked. To its right is a dropdown menu for 'Public IP (accessible to servers)' showing '192.168.200.233'. Below that is a text field for 'Database Proxy Port' containing '9002'. At the bottom are 'Cancel', 'Previous', and 'Next' buttons. The footer text reads 'InstallAnywhere by Macrovision'.



- 136 If the 5620 SAM server and database are installed on the same station, select the “Database co-exists with a 5620 SAM Server” parameter shown in Figure 4-136. Click on the Next button.

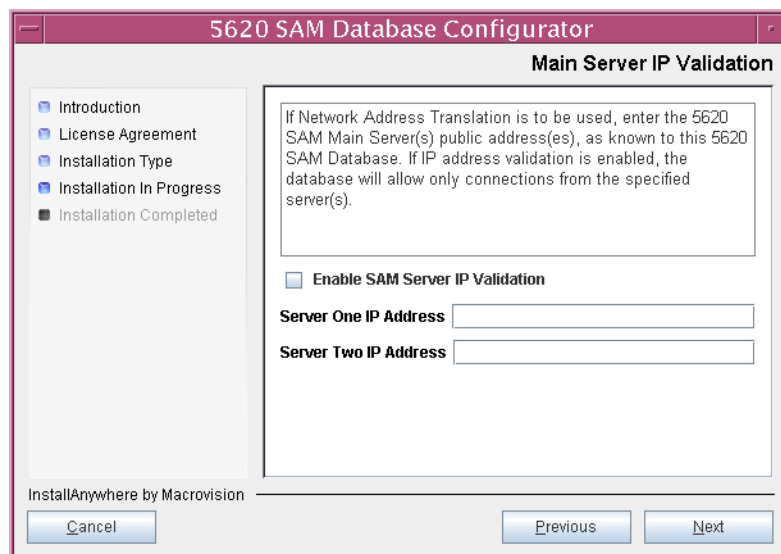
Figure 4-136 Determine Memory Requirements



- 137 If the “Enable SAM Server IP Validation” parameter shown in Figure 4-137 is selected, only the server at the specified IP addresses or hostnames can connect to the database. If required, select it and configure the following parameters. Click on the Next button.

- Server One IP Address (primary server IP address value from step 35)
- Server Two IP Address (peer server IP address value from step 35)

Figure 4-137 Main Server IP Validation



138 Depending on the 5620 SAM release from which you are upgrading, the panel in Figure 4-138 is displayed if the “Enable SAM Server IP Validation” parameter in step 137 is selected. Otherwise, go to step 140.

If the 5620 SAM system includes an auxiliary server, perform the following steps.

- i Click on the Add button shown in Figure 4-138. The form shown in Figure 4-139 opens.

Figure 4-138 Auxiliary Server IP Validation

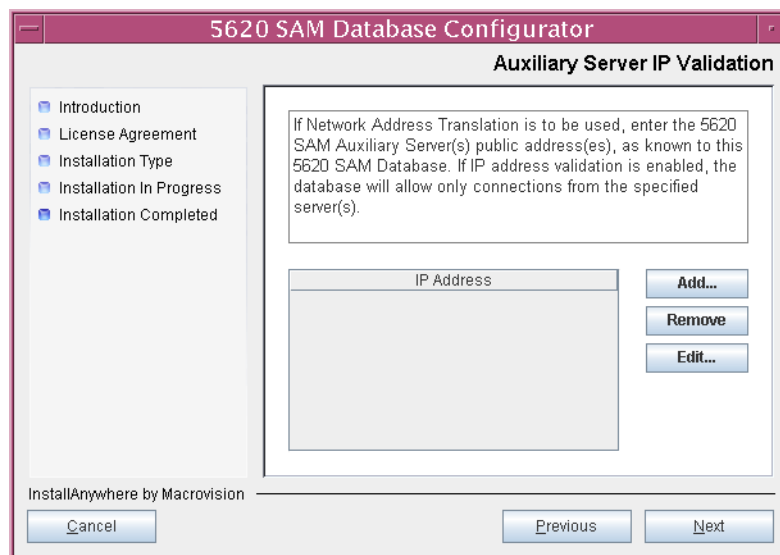
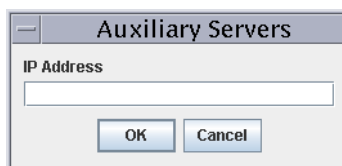


Figure 4-139 Auxiliary Servers



- ii Enter the IP address or hostname of the auxiliary server.
- iii Click on the OK button to save the information and close the form.
- iv Repeat steps 138 i to iii to specify an additional auxiliary server, if required.

139 Click on the Next button.

140 Configure the following parameters, shown in Figure 4-140, using the recorded values from the primary database upgrade. Click on the Next button.

- Primary IP Address
- Primary Instance Name (typically samdb2)
- Primary SYS Password
- Primary Database Listener Port (typically 1523)
- Primary Database Proxy Port (typically 9002)

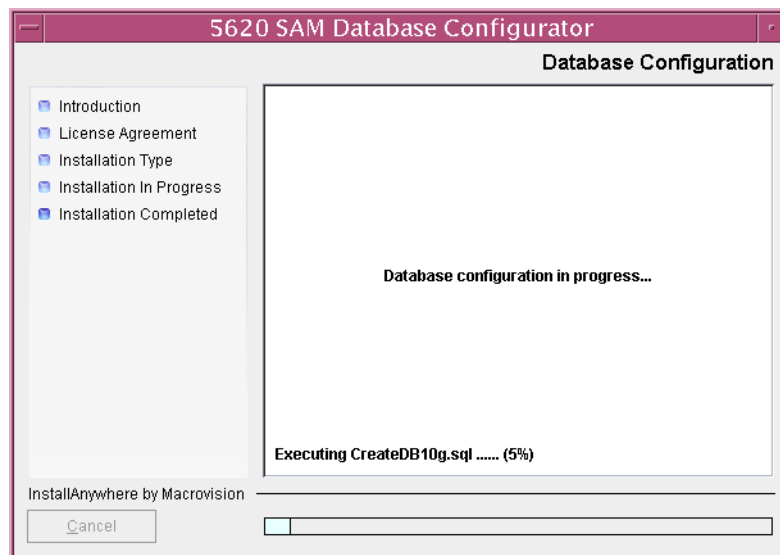
Figure 4-140 Primary Database Info

141 You are prompted to begin standby database creation, as shown in Figure 4-141. Click on the Start Process button to begin the database creation.

Figure 4-141 Standby Database Configuration

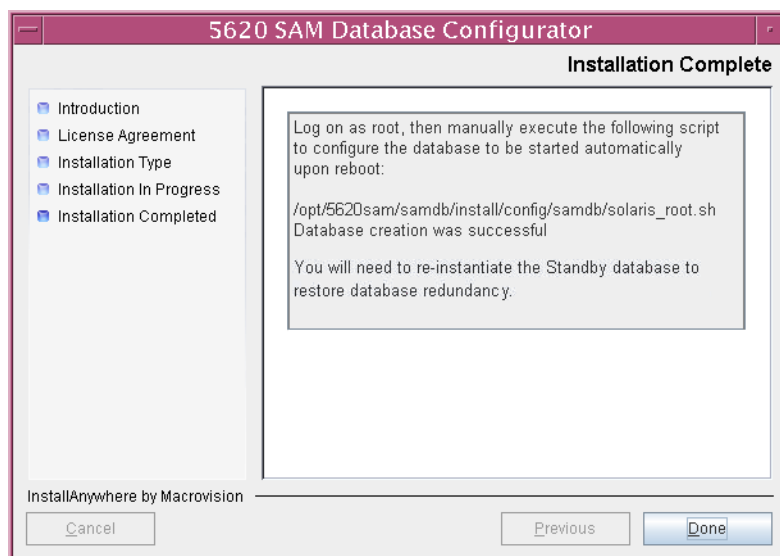
The next panel displays database configuration progress, as shown in Figure 4-142.

Figure 4-142 Database Configuration



- 142 When the panel in Figure 4-143 is displayed, the 5620 SAM database installation is complete, but as shown in the panel text, you must run a script to enable automatic database startup.

Figure 4-143 Installation Complete



Perform the following steps to run the script described in the panel.

- i Open a separate console window as a user with root or root-equivalent privileges.
- ii Enter the following at the CLI prompt:

```
path/install/config/samdb/solaris_root.sh
```

where *path* is the 5620 SAM database installation location, typically /opt/5620sam/samdb

The script returns messages similar to the following:

```
re-creating link for /usr/local/lib/libiconv.so.2
re-creating link for /usr/local/lib/libpopt.so.0
re-creating link for /usr/local/lib/libintl.so.8
re-creating link for /usr/local/lib/libgcc_s.so.1
```

- iii When the script execution is complete, close the console window.

- 143 Click on the Done button to close the database installer.

The next section of the procedure describes the reinstantiation of the database on the new standby database station.

### Reinstantiate database on new standby station

- 144 Log in to a 5620 SAM client as the admin user.
- 145 Choose Administration→System Information from the 5620 SAM main menu. The System Information form opens with the General tab displayed.
- 146 Click on the Re-Instantiate Standby button. A dialog box appears.
- 147 Click on the Yes button. The database reinstantiation begins.

You can view the reinstantiation status on the client GUI status bar or on the System Information form. The Standby Re-instantiation State changes from In Progress to Success when reinstantiation is complete. The start time of the reinstantiation is shown by the Last Attempted Standby Re-instantiation Time indicator.



**Note —** Database reinstantiation can take a long time when there is a large amount of statistics information to transfer.

- 148 When the reinstantiation is complete, close the System Information form.

The next section of the procedure describes the upgrade of the original primary (new standby) 5620 SAM server. A server upgrade requires root-equivalent privileges.

### Upgrade original primary main server

- 149 Log in to the original primary server station as a user with root or root-equivalent privileges.



**Note** — This station is the new standby server station after the upgrade.

- 150 Open a console window.
- 151 Perform the following steps to ensure that no-one is logged in to the station as the samadmin user.
- i Enter the following at the CLI prompt:  

```
who ↵
```

The active user sessions are listed.
  - ii If the samadmin user is listed, close each samadmin user session. See the appropriate Solaris documentation for more information.
- 152 Place the new 5620 SAM software DVD-ROM in a DVD-ROM drive.
- 153 Navigate to the DVD-ROM drive.
- 154 Perform one of the following to open the 5620 SAM server installer.
- a On a Sun SPARC station:
    - i Enter the following at the CLI prompt:  

```
cd Solaris ↵
```
    - ii Enter the following at the CLI prompt:  

```
./ServerInstall_SAM_8_0_revision.bin ↵
```

where  
*revision* is the revision identifier, such as R1, R3, or another descriptor
  - b On a Sun X86-based station:
    - i Enter the following at the CLI prompt:  

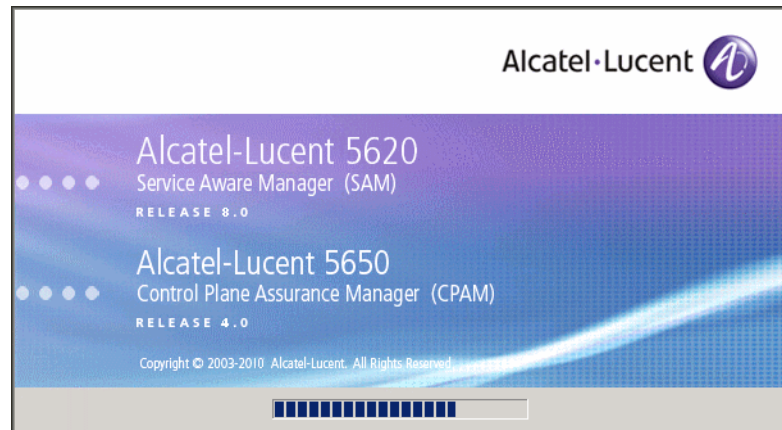
```
cd Solarisx86 ↵
```
    - ii Enter the following at the CLI prompt:  

```
./ServerInstall_x86_SAM_8_0_revision.bin ↵
```

where  
*revision* is the revision identifier, such as R1, R3, or another descriptor

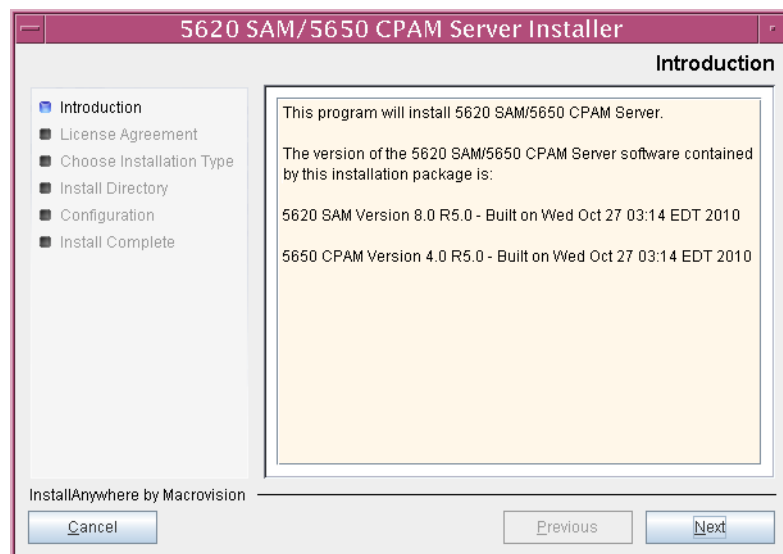
The splash screen shown in Figure 4-144 opens.

Figure 4-144 5620 SAM installer



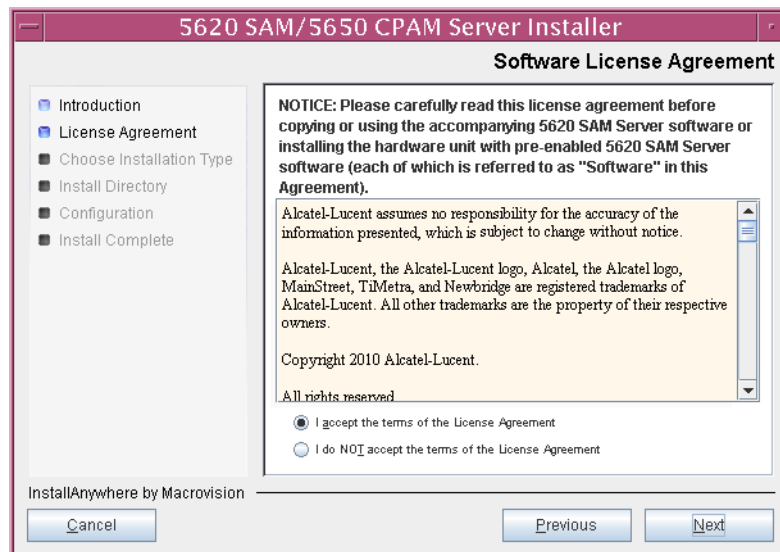
- 155 The 5620 SAM server installer opens, as shown in Figure 4-145. The left pane indicates upgrade progress. The right pane displays release information about the software. Click on the Next button.

Figure 4-145 Introduction



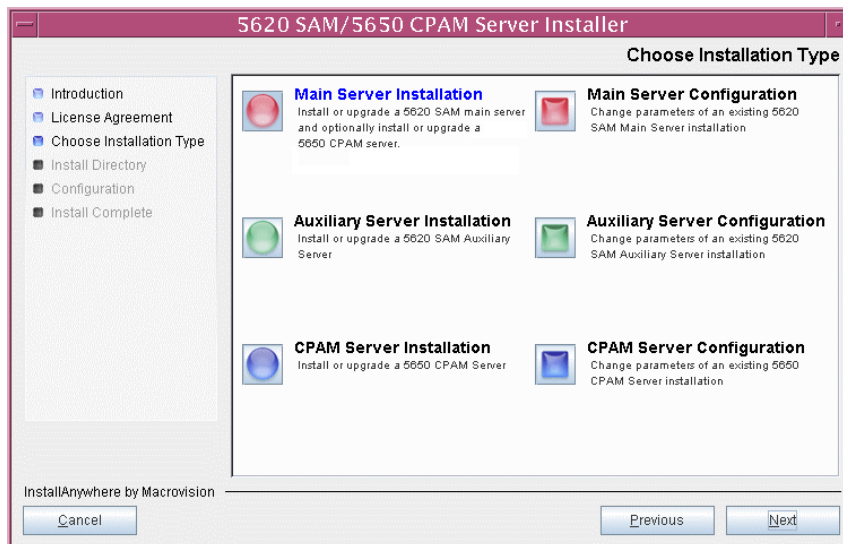
- 156 Review and accept the terms of the license agreement shown in Figure 4-146. Click on the Next button.

Figure 4-146 Software License Agreement



- 157 Select Main Server Installation, as shown in Figure 4-147. Click on the Next button.

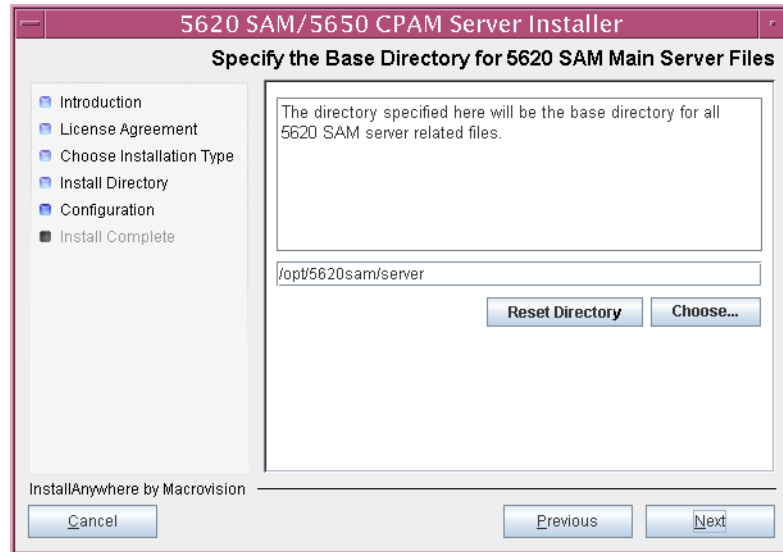
Figure 4-147 Choose Installation Type





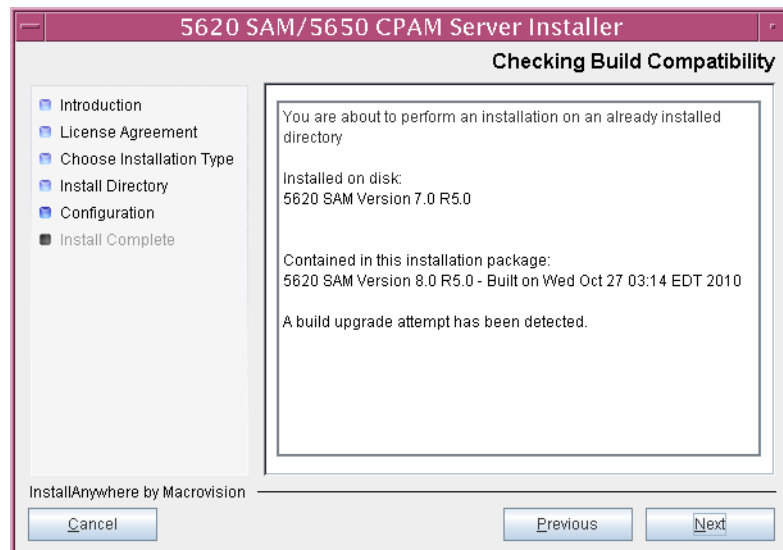
- 158 Specify the base directory in which the existing 5620 SAM main server software is installed (typically /opt/5620sam/server), as shown in Figure 4-148. Click on the Next button.

Figure 4-148 Specify the Base Directory for 5620 SAM Main Server Files



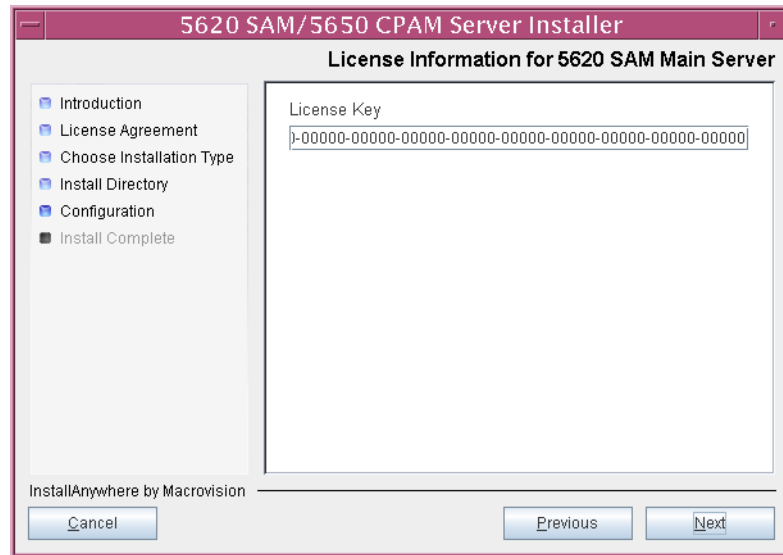
- 159 As shown in Figure 4-149, the installer indicates which release of 5620 SAM software is currently installed and the release to which it is to be upgraded. Verify the information. Click on the Next button.

Figure 4-149 Checking Build Compatibility



- 160 The 5620 SAM installer displays the License Key specified during the existing installation. Enter the License Key information for the new 5620 SAM release exactly as received from Alcatel-Lucent. Include the dashes in the key, as shown in Figure 4-150. Click on the Next button.

Figure 4-150 License Information for 5620 SAM Main Server



161 Configure the following parameters shown in Figure 4-151, then click on the Next button.

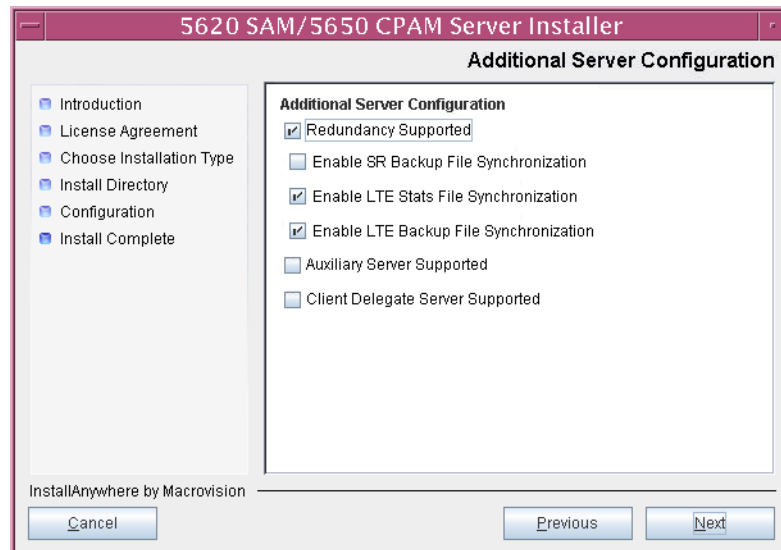
- Redundancy Supported
- Enable SR Backup File Synchronization
- Enable LTE Stats File Synchronization
- Enable LTE Backup File Synchronization
- Auxiliary Server Supported
- Client Delegate Server Supported



**Note 1** — You must select the Redundancy Supported parameter.

**Note 2** — The Enable SR Backup File Synchronization and Enable LTE Backup File Synchronization parameters are displayed only when the Redundancy Supported parameter is enabled.

Figure 4-151 Additional Server Configuration



162 Configure the following parameters, shown in Figure 4-152, using the recorded values from the primary database upgrade. Click on the Next button.

- Primary Database IP Address
- Primary Database Server Port (typically 1523)
- Primary Database Instance Name (typically samdb2)
- Database User Name (typically samuser)
- Database User Password
- Primary Database Proxy Port (typically 9002)

Figure 4-152 Primary Database Configuration

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window with the 'Primary Database Configuration' tab selected. On the left is a navigation pane with the following items: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (selected), and Install Complete. The main area contains a text box with instructions: 'If NAT (network address translation) is to be used, enter the primary 5620 SAM database's public IP address, as known to the 5620 SAM server.' Below this are six input fields: 'Primary Database Server IP Address' (empty), 'Primary Database Server Port' (1523), 'Primary Database Instance Name' (samdb2), 'Database User Name' (samuser), 'Database User Password' (masked with asterisks), and 'Primary Database Proxy Port' (9002). At the bottom left is the text 'InstallAnywhere by Macrovision' and a 'Cancel' button. At the bottom right are 'Previous' and 'Next' buttons.

163 Depending on the existing configuration, the panel in Figure 4-153 is displayed. Configure the following parameters, if required, then click on the Next button:

- Online Database Backup Interval (hours) (typically 24)
- Online Backup Destination (typically /opt/5620sam/dbbackup)
- Number Of Backup Sets (typically 3)



**Note** — The Online Backup Destination is a path on the file system of the database station specified in step 162.

Figure 4-153 Online Database Backup

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window with the 'Online Database Backup' panel selected. The panel contains a text box with instructions: 'The database backup directory resides on the database workstation. Please ensure that the specified directory exists on the database workstation and it is writable.' Below this are three input fields: 'Online Backup Interval (Hours)' with a value of 24, 'Online Backup Destination' with a value of /opt/5620sam/dbbackup, and 'Number Of Backup Sets' with a value of 3. At the bottom of the window are 'Cancel', 'Previous', and 'Next' buttons. The left sidebar shows the installation steps: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration, and Install Complete (which is currently selected).

164 Configure the following parameters shown in Figure 4-154, then click on the Next button:

- Database Server IP Address
- Database Instance Name (typically samdb1)
- Database Proxy Port (typically 9002)
- Enable Database Backup File Synchronization

Figure 4-154 Standby Database Configuration

The screenshot shows the 'Standby Database Configuration' window of the '5620 SAM/5650 CPAM Server Installer'. The window has a title bar with the text '5620 SAM/5650 CPAM Server Installer'. On the left side, there is a vertical list of steps: 'Introduction', 'License Agreement', 'Choose Installation Type', 'Install Directory', 'Configuration' (which is highlighted with a blue square), and 'Install Complete' (which is preceded by a black square). The main area of the window contains a text box with the instruction: 'If NAT (network address translation) is to be used, enter the standby 5620 SAM database's public IP address as known to the 5620 SAM server.' Below this text box are three input fields: 'Database Server IP Address' (highlighted in yellow), 'Database Instance Name' (containing the text 'samdb1'), and 'Database Proxy Port' (containing the text '9002'). Below these fields is a checkbox labeled 'Enable Database Backup File Synchronization', which is currently unchecked. At the bottom left of the window, it says 'InstallAnywhere by Macrovision'. At the bottom right, there are three buttons: 'Cancel', 'Previous', and 'Next'.

- 165 The panel in Figure 4-155 is displayed if you select “Auxiliary Server Supported” in step 161. Otherwise, go to step 167.

Perform the following steps to specify an auxiliary server, if required.

- i Configure the following parameters shown in Figure 4-155:
  - NAT (network address translation) Used  
Select this parameter only if NAT is to be used between the 5620 SAM main and auxiliary servers.
  - Private IP (accessible only by this server)  
You must configure this parameter if you select the NAT (network address translation) Used parameter.
  - Public IP (accessible to auxiliary)
  - Server Port (typically 12800)
  - Enable Stats Collection on Auxiliary Servers
  - Enable Call Trace Collection on Auxiliary Servers



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 4-155.

Figure 4-155 Main Server Configuration for Auxiliary Servers

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window. The title bar is red. The main window has a left sidebar with a list of steps: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration, and Install Complete. The 'Configuration' step is selected. The main area is titled 'Main Server Configuration for Auxiliary Servers'. It contains a text box with instructions: 'Enter the the network interface information that this 5620 SAM main server requires to communicate with the 5620 SAM auxiliary servers. At least one service type checkbox must be selected.' Below this are several configuration options:
 

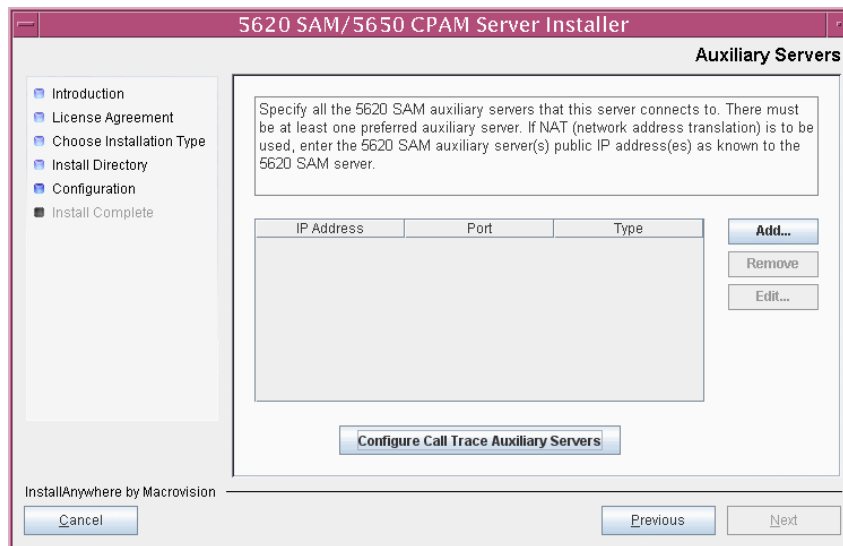
- ☒ NAT (network address translation) Used
- Private IP (accessible only by this server): 192.168.200.111 (dropdown menu)
- Public IP (accessible to auxiliary): (empty text box)
- Server Port: 12800 (text box)
- ☐ Enable Stats Collection on Auxiliary Servers
- ☒ Enable Call Trace Collection on Auxiliary Servers

 At the bottom, there are 'Cancel', 'Previous', and 'Next' buttons. The text 'InstallAnywhere by Macrovision' is visible in the bottom left corner.

- ii Click on the Next button.

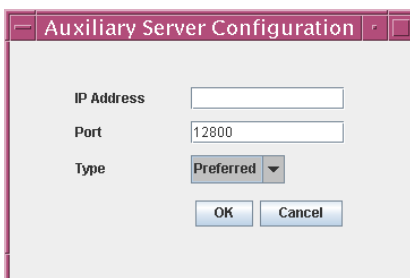
- iii Click on the Add button shown in Figure 4-156 to specify an auxiliary server. The form shown in Figure 4-157 opens.

Figure 4-156 Auxiliary Servers



**Note —** To minimize network latency between this main server and the Preferred auxiliary server that you specify in this step, specify an auxiliary server in the local network rather than an auxiliary server that is geographically remote.

Figure 4-157 Auxiliary Server Configuration



- iv Configure the following parameters:
- IP Address
  - Port (typically 12800)
  - Type (Preferred or Reserved)
- v Click on the OK button to save the information and close the form.
- vi Repeat steps 165 iii to v to specify an additional auxiliary server, if required.



- vii If “Enable Call Trace Collection on Auxiliary Servers” is selected in step 165 i, click on the “Configure Call Trace Auxiliary Servers” button shown in Figure 4-156. Otherwise, go to step 166.
- viii The form shown in Figure 4-158 opens. Select a preferred auxiliary server in the upper left panel and the associated reserved auxiliary server in the lower left panel, and click on the “Make Pair from Selected” button. The auxiliary servers move to the list on the right side of the form.

Figure 4-158 Configure Call Trace Auxiliary Servers

Select one preferred server and one reserved server from the left side. Add those servers to the right side using the 'Make Pair from Selected' button.

| Preferred Auxiliary Servers |       |
|-----------------------------|-------|
| IP Address                  | Port  |
| 10.1.1.1                    | 12800 |
| 10.1.1.2                    | 12800 |
| 10.1.1.3                    | 12800 |

| Reserved Auxiliary Servers |       |
|----------------------------|-------|
| IP Address                 | Port  |
| 10.2.2.1                   | 12800 |
| 10.2.2.2                   | 12801 |
| 10.2.2.3                   | 12800 |

| Server Pairs        |                    |
|---------------------|--------------------|
| Preferred Server IP | Reserved Server IP |

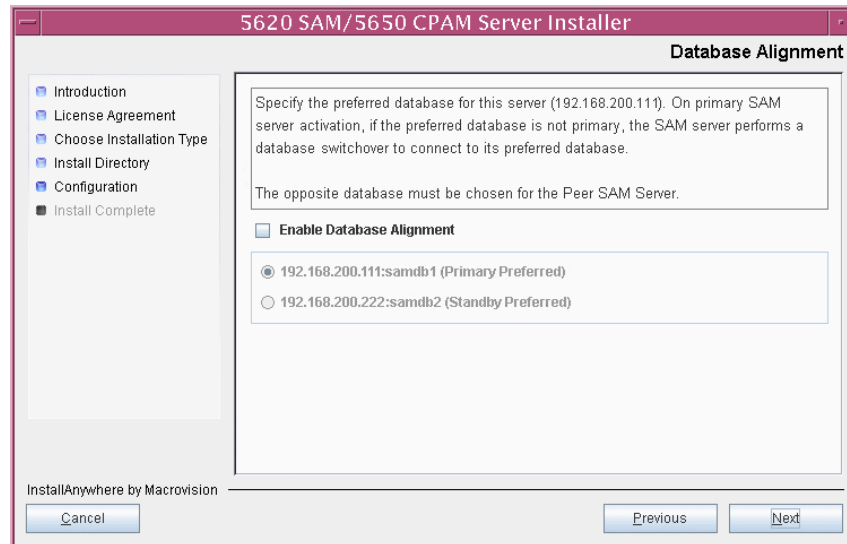
Make Pair from Selected      Remove Selected Pair      OK      Cancel

- ix Repeat step 165 viii to configure another call-trace auxiliary server pair, if required.

166 Click on the Next button.

- 167 If you select the Enable Database Alignment parameter shown in Figure 4-159, you must specify the preferred database of this main server. Click on the Next button.

Figure 4-159 Database Alignment



168 Perform the following steps.

- i Configure the following parameters shown in Figure 4-160:
  - Server Domain Name (typically 5620sam)  
This is a value that uniquely identifies the 5620 SAM server cluster.
  - Use Hostname for Communication  
Select this parameter if the main server is to use multiple interfaces for GUI and OSS client communication.

Figure 4-160 Main Server Configuration for Clients

**5620 SAM/5650 CPAM Server Installer**

**Main Server Configuration for Clients**

Enter the network interface information that the GUI and OSS clients require to communicate with this 5620 SAM main server.

If multiple addresses are to be used for communication with GUI clients, OSS clients, and auxiliary servers, a hostname must be provided for the Public Hostname field.

Server Domain Name

☐ Use Hostname for Communication (recommended if NAT is used)

☒ NAT (network address translation) Used

Private IP (accessible only by this server)

Public IP (accessible to clients)

EJB JNDI Server port

EJB JMS Server port

☐ Enable 5670 RAM

☐ Enable 3GPP OSS Interface

InstallAnywhere by Macrovision

- ii If you select Use Hostname for Communication, go to step 168 vi.
- iii Configure the following parameters:
  - NAT (network address translation) Used
  - Private IP (accessible only by this server)
  - Public IP (accessible to clients)
  - EJB JNDI Server port (typically 1099)
  - EJB JMS Server port (typically 8093)
  - Enable 5670 RAM
  - Enable 3GPP OSS Interface



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 4-160.

- iv Click on the Next button.

- v Go to step 170.
- vi Configure the following parameters shown in Figure 4-161:
  - NAT (network address translation) Used
  - Private IP (accessible only by this server)
  - Public Hostname
  - EJB JNDI Server port (typically 1099)
  - EJB JMS Server port (typically 8093)
  - Enable 5670 RAM
  - Enable 3GPP OSS Interface



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 4-161.

Figure 4-161 Main Server Configuration for Clients

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window. The title bar is '5620 SAM/5650 CPAM Server Installer'. The main window has a sidebar on the left with a tree view containing: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (selected), and Install Complete. The main area is titled 'Main Server Configuration for Clients'. It contains the following fields and options:

- Text box: 'Enter the network interface information that the GUI and OSS clients require to communicate with this 5620 SAM main server. If multiple addresses are to be used for communication with GUI clients, OSS clients, and auxiliary servers, a hostname must be provided for the Public Hostname field.'
- Text box: 'Server Domain Name' with value '5620sam'.
- Checkboxes: 'Use Hostname for Communication (recommended if NAT is used)' and 'NAT (network address translation) Used' (checked).
- Text box: 'Private IP (accessible only by this server)' with value '192.168.200.111' and a dropdown arrow.
- Text box: 'Public Hostname'.
- Text box: 'EJB JNDI Server port' with value '1099'.
- Text box: 'EJB JMS Server port' with value '8093'.
- Checkboxes: 'Enable 5670 RAM' and 'Enable 3GPP OSS Interface'.

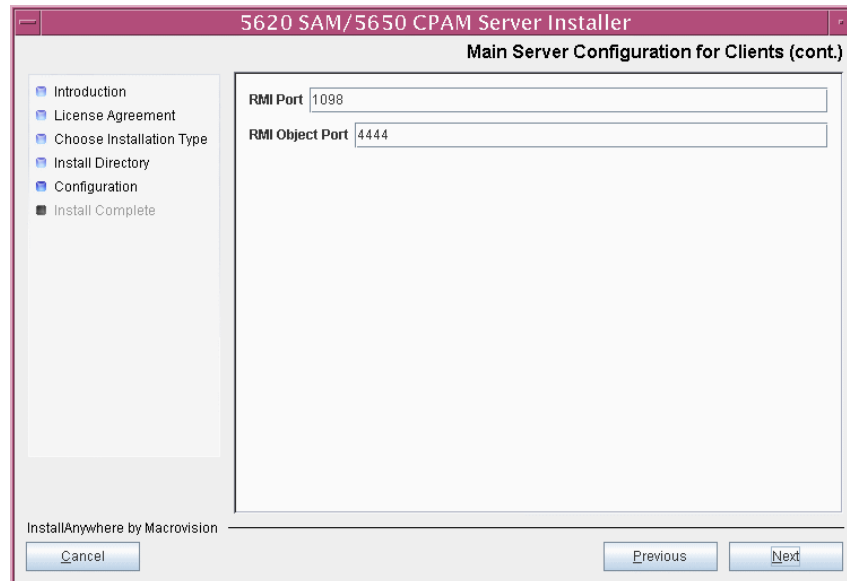
At the bottom left, it says 'InstallAnywhere by Macrovision' with a 'Cancel' button. At the bottom right, there are 'Previous' and 'Next' buttons.

- vii Click on the Next button.

169 Configure the following parameters shown in Figure 4-162, then click on the Next button:

- RMI Port (typically 1098)
- RMI Object Port (typically 4444)

Figure 4-162 Main Server Configuration for Clients (cont.)



170 Configure the following parameters shown in Figure 4-163:

- NAT (network address translation) Used  
Select this parameter only if NAT is to be used between this 5620 SAM server and the peer 5620 SAM server.
- Private IP (accessible only by this server)
- Public IP (accessible to peer server)
- High Available JNDI Port (typically 1100)
- TCP Port Cluster Number (typically 11800)



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 4-163.

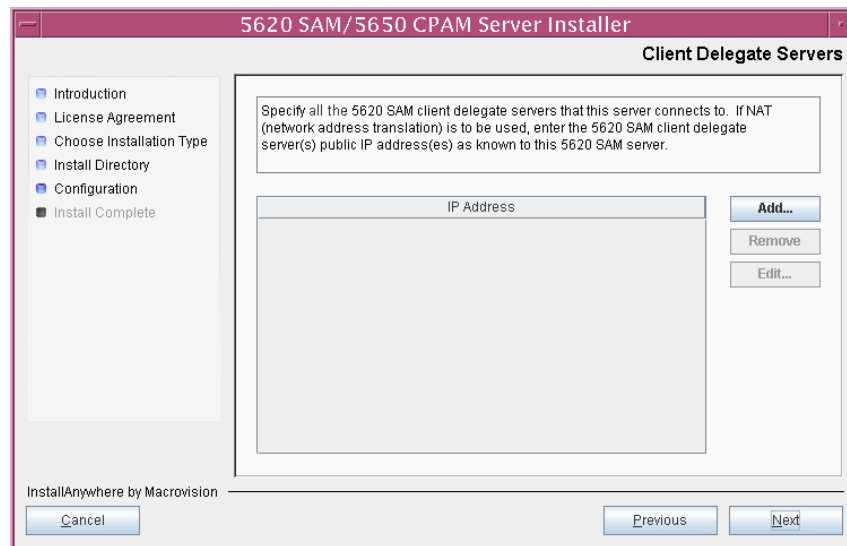
Figure 4-163 Main Server Configuration for Peer Server

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window. The title bar is purple with the text '5620 SAM/5650 CPAM Server Installer'. The main window has a purple header bar with the text 'Main Server Configuration for Peer Server'. On the left side, there is a vertical list of steps: 'Introduction', 'License Agreement', 'Choose Installation Type', 'Install Directory', 'Configuration', and 'Install Complete'. The 'Configuration' step is currently selected. The main area of the window contains a text box with the instruction: 'Enter the network interface information that this 5620 SAM main server requires to communicate with the peer server.' Below this, there is a checkbox labeled 'NAT (network address translation) Used' which is checked. Underneath the checkbox, there are three input fields: 'Private IP (accessible only by this server)' with the value '192.168.200.222', 'Public IP (accessible to peer server)' which is empty, and 'High Available JNDI Port' with the value '1100'. Below these, there is a 'TCP Port Cluster Number' field with the value '11800'. At the bottom of the window, there is a footer that says 'InstallAnywhere by Macrovision'. There are three buttons at the bottom: 'Cancel', 'Previous', and 'Next'.

- 171 The panel in Figure 4-164 is displayed if you select “Client Delegate Server Supported” in step 161. Otherwise, go to step 172.

Click on the Add button to specify the client delegate server IP addresses, as required. If NAT is used between the 5620 SAM server and client delegate servers, specify the public IP address. Click on the Next button.

Figure 4-164 Client Delegate Servers



172 Perform one of the following to specify where the 5620 SAM user documentation is to be stored.

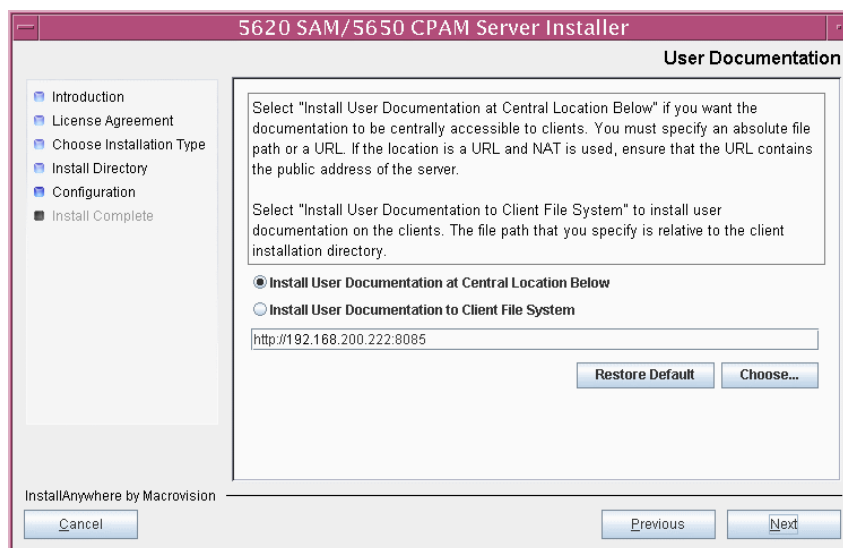
- a To store the documentation in a central location that is available to all clients, perform the following steps.
  - i Select the “Install User Documentation at Central Location Below” parameter, as shown in Figure 4-165.
  - ii To accept the default user documentation location that is displayed, go to step 173.



**Note —** If NAT is used between the 5620 SAM server and clients, you must update the default location using the public IP address of the server, or the documentation is not accessible to clients.

- iii Specify a location for the 5620 SAM user documentation in the field below the parameters.
- iv Copy the contents of the User\_Documentation directory on the new 5620 SAM software DVD-ROM to the location specified in step iii.
- v Click on the Next button. A dialog box appears.
- vi Click on the OK button.

Figure 4-165 User Documentation





- b To store a copy of the documentation on the client file system, perform the following steps.
  - i Select the “Install User Documentation to Client File System” parameter shown in Figure 4-165.
  - ii Specify a file path relative to the 5620 SAM client installation directory. The path must not contain a leading slash.

For example, if the installation directory is /opt/5620sam/client and you specify Documents as the location, the documentation is installed in the following directory:

/opt/5620sam/client/Documents

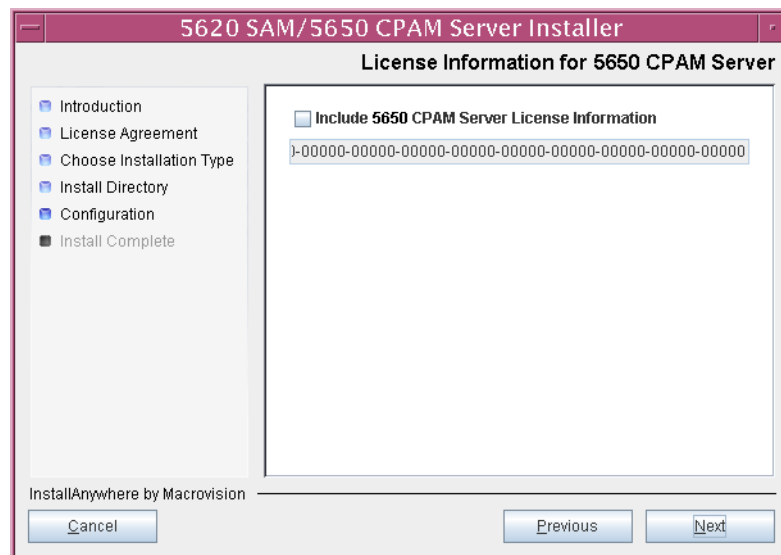


**Note** — The 5620 SAM client uninstaller cannot remove the documentation unless it is installed below the nms directory in the 5620 SAM client installation directory, for example, /opt/5620sam/client/nms/Documents.

173 Click on the Next button.

174 Specify whether the 5620 SAM configuration includes a 5650 CPAM server, as shown in Figure 4-166. If it does, enter the 5650 CPAM license key provided by Alcatel-Lucent. Include the dashes in the key. Click on the Next button.

Figure 4-166 License Information for 5650 CPAM Server



175 Configure the following parameters shown in Figure 4-167, then click on the Next button:

- NAT (network address translation) Used  
Select this parameter only if NAT is to be used between the 5620 SAM main server and the managed network.
- SNMP Trap Receiving IPv4 Address
- SNMP Trap Receiving IPv6 Address
- SNMP Trap Receiving Port (typically 162)
- Trap Log Id (typically 98)

Figure 4-167 SNMP Configuration

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window with the 'SNMP Configuration' tab selected. On the left is a navigation pane with links: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration, and Install Complete. The main area contains a text box with instructions: 'If NAT (network address translation) is to be used, enter the 5620 SAM main server's public IP address as known to the devices within the managed network.' Below this are two unchecked checkboxes: 'NAT (network address translation) Used' and 'IPv6 Address Used'. There are four input fields: 'SNMP Trap Receiving IPv4 Address' (containing '192.168.200.133'), 'SNMP Trap Receiving IPv6 Address' (empty), 'SNMP Trap Receiving Port' (containing '162'), and 'Trap Log Id' (containing '98'). At the bottom left is the text 'InstallAnywhere by Macrovision' and a 'Cancel' button. At the bottom right are 'Previous' and 'Next' buttons.

176 Configure the following parameters shown in Figure 4-168, then click on the Next button:

- Peer Server IP Address (the new primary server IP address)
- Peer Server Trap Log Id (typically 98)
- Peer Server SNMP Trap Receiving IPv4 Address
- Peer Server SNMP Trap Receiving IPv6 Address
- Peer Server SNMP Trap Receiving Port (typically 162)
- Peer Server TCP Port Cluster Number (typically 11800)

Figure 4-168 Peer Main Server Configurations

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window. The title bar is purple with the text '5620 SAM/5650 CPAM Server Installer'. The main window has a purple header bar with the text 'Peer Main Server Configurations'. On the left side, there is a vertical list of steps: 'Introduction', 'License Agreement', 'Choose Installation Type', 'Install Directory', 'Configuration', and 'Install Complete'. The 'Configuration' step is currently selected and highlighted. The main area of the window contains a text box with the following text: 'If NAT (network address translation) is to be used, enter the 5620 SAM peer server's public IP address as known to the 5620 SAM server. Also enter the 5620 SAM peer server's public IP address as known to the devices within the managed network.' Below this text box are six input fields: 'Peer Server IP Address', 'Peer Server Trap Log Id' (with the value '98'), 'Peer Server SNMP Trap Receiving IPv4 Address', 'Peer Server SNMP Trap Receiving IPv6 Address', 'Peer Server SNMP Trap Receiving Port' (with the value '162'), and 'Peer Server TCP Port Cluster Number' (with the value '11800'). At the bottom of the window, there is a footer bar with the text 'InstallAnywhere by Macrovision' on the left and two buttons, 'Previous' and 'Next', on the right. A 'Cancel' button is also visible at the bottom left.

177 If you selected the Use Hostname for Communication parameter in step 168, go to step 179.

178 Configure the following parameters shown in Figure 4-169, then click on the Next button:

- 5620 SAM Peer Server IP Address (the new primary server station IP address)
- 5620 SAM JNDI High Available Peer Server Port (typically 1100)
- 5620 SAM JNDI Peer Server Port (typically 1099)

Figure 4-169 Peer Main Server Configurations (cont.)

**5620 SAM/5650 CPAM Server Installer**

**Peer Main Server Configurations (cont.)**

Enter the IP address of the network interface the GUI and OSS clients require to communicate with the peer server. If NAT (network address translation) is to be used, specify the public IP address as known to the 5620 SAM clients.

If multiple addresses are to be used for communication with GUI clients, OSS clients, and auxiliary servers, a hostname must be provided for the 5620 SAM Peer Server Hostname field.

5620 SAM Peer Server IP Address

5620 SAM JNDI High Available Peer Server Port

5620 SAM JNDI Peer Server Port

InstallAnywhere by Macrovision

179 Configure the following parameters shown in Figure 4-170, then click on the Next button:

- 5620 SAM Peer Server Hostname
- 5620 SAM JNDI High Available Peer Server Port (typically 1100)
- 5620 SAM JNDI Peer Server Port (typically 1099)

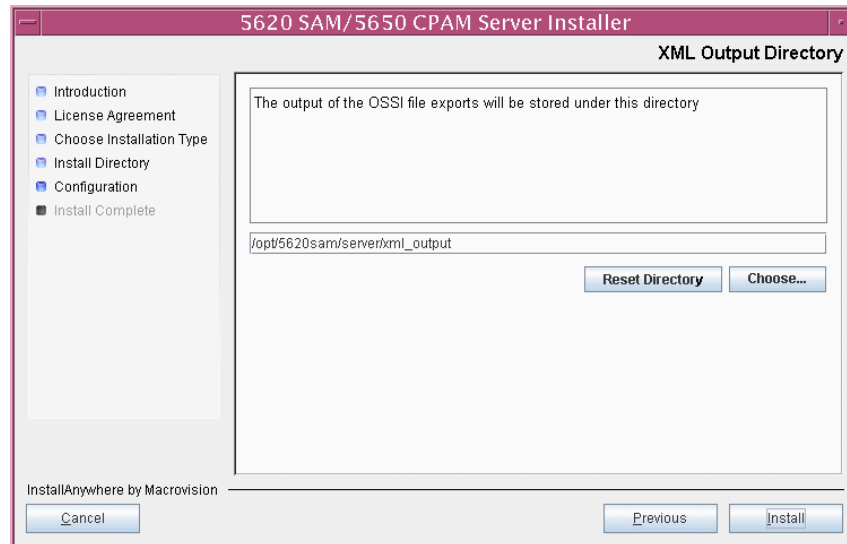
Figure 4-170 Peer Main Server Configurations (cont.)

180 If you require 5620 SAM client navigation from a 5620 NM system, select the “Enable Navigation from External Systems” parameter shown in Figure 4-171 and specify the TCP port that the client is to use for accepting navigation requests. Click on the Next button.

Figure 4-171 Navigation from External Systems

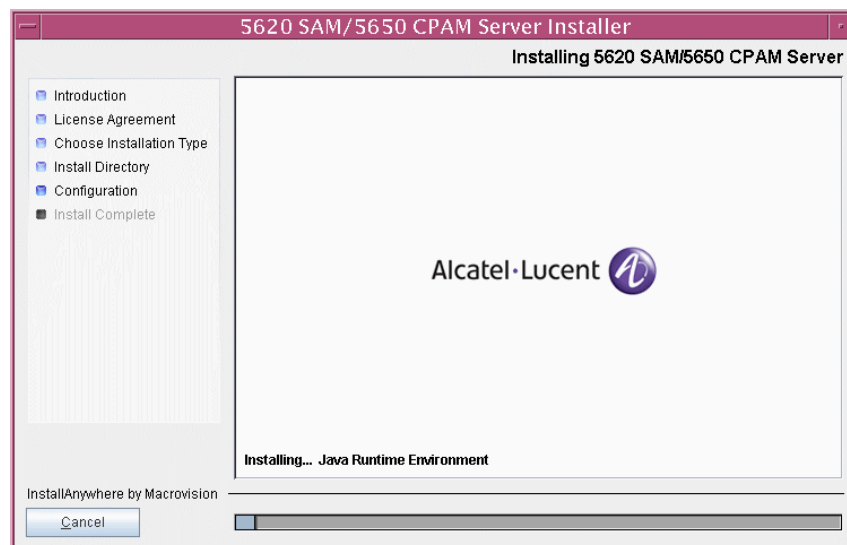
- 181 Specify an OSS XML output location (typically /opt/5620sam/server/xml\_output), as shown in Figure 4-172. Click on the Install button to begin the server upgrade.

Figure 4-172 XML Output Directory



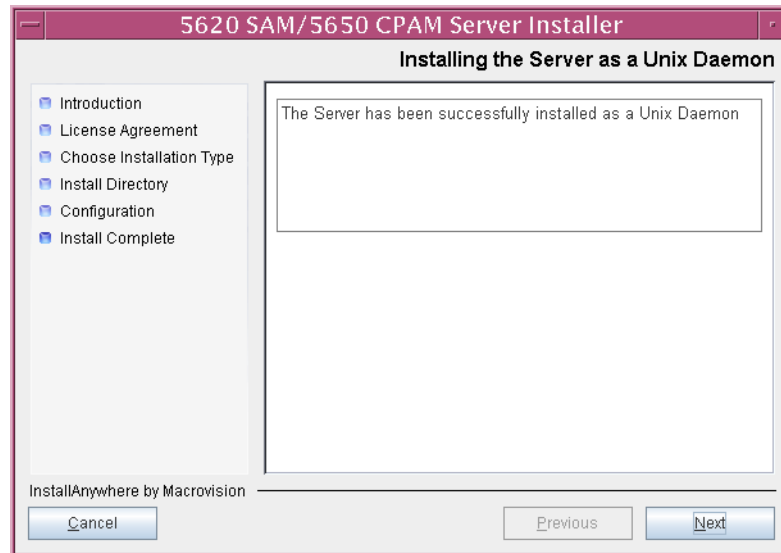
The next panel displays upgrade progress, as shown in Figure 4-173.

Figure 4-173 Installing 5620 SAM/5650 CPAM Server



- 182 The 5620 SAM server is installed as a UNIX daemon, as shown in Figure 4-174. Click on the Next button.

Figure 4-174 Installing the Server as a Unix Daemon



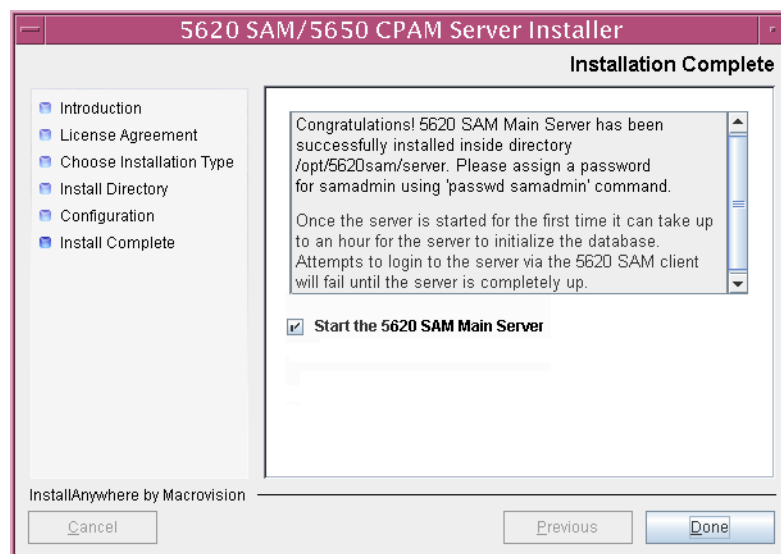
- 183 When the server upgrade is complete, as shown in Figure 4-175, configure the “Start the 5620 SAM Main Server” parameter to specify whether you want the server to start immediately after the installation.



**Caution 1** — If the 3GPP OSS interface is enabled in step 168, ensure that the “Start the 5620 SAM Main Server” parameter is not selected.

**Caution 2** — Do not click on the Done button at this time.

Figure 4-175 Installation Complete



**Configure communication security for new standby main server**

**184** If other components in the 5620 SAM system use SSL or HTTPS to communicate with this main server, you must reconfigure SSL, and HTTPS, if required, on the main server interfaces, before the main server can communicate with the other components. The interfaces that may require reconfiguration may include the following:

- the JGroups interface used for the other main server
- the EJB interface used for the single-user 5620 SAM GUI clients and client delegate servers
- the JMS interface used for the single-user 5620 SAM GUI clients, OSS clients, client delegate servers and auxiliary servers
- the HTTP interface used for the single-user 5620 SAM GUI clients and client delegate servers
- the HTTP interface used for the 5620 SAM OSS clients



**Note** — A 5620 SAM software upgrade removes an SSL or HTTPS configuration on a 5620 SAM component. If a component uses SSL or HTTPS before an upgrade, you must enable SSL, and HTTPS, if required, after the upgrade. See the *5620 SAM User Guide* for information about configuring SSL and HTTPS for 5620 SAM components.

**185** View the panel text to see whether it states that you must assign a password to samadmin, as shown in Figure 4-175. This information is required in step 187.

**186** Click on the Done button to close the server installer. If you specified that the server is to start after installation, the server starts. Initial server startup can take twenty minutes or more.

This server is the new standby main server.

**187** If you are upgrading from 5620 SAM Release 6.0, the installer creates a user account called samadmin for 5620 SAM system administration.

If you must assign a password to samadmin, as determined in step 185, perform the following steps.

Perform the following steps to assign a new samadmin password.

i Enter the following at the CLI prompt:

```
passwd samadmin
```

The following prompt is displayed:

```
New Password:
```

ii Enter the new password and press ↵.

The following prompt is displayed:

```
Confirm New Password:
```

iii Enter the new password again and press ↵. The password is changed.



- iv Record the new password and store it in a secure location.
- v Leave the console window open for later use.

188 If the 3GPP OSS interface is enabled in step 168, perform the following steps.

- i Open the *path/nms/cnbi/home/config/cnbi.properties* file using a plain-text editor

where *path* is the 5620 SAM main server installation location, typically *opt/5620sam/server*

- ii Locate the following line:

```
CNBI.SAMO.USER=
```

- iii Edit the line to read:

```
CNBI.SAMO.USER=3GPP_OSS_user_name
```

where *3GPP\_OSS\_user\_name* is the user name that OSS applications must send in requests to the interface

- iv Locate the following line:

```
CNBI.SAMO.PASSWORD=
```

- v Edit the line to read:

```
CNBI.SAMO.PASSWORD=3GPP_OSS_password
```

where *3GPP\_OSS\_password* is the MD5-encrypted user password that OSS applications must send in requests to the interface



**Note —** The user name and password must be the same user name and password specified during the primary server configuration in step 87.

189 If you specified that the server is to start immediately after installation, perform the following steps to verify that the 5620 SAM server is started.

- i Enter the following at the CLI prompt to switch to the samadmin user:

```
su - samadmin .\
```

- ii Enter the following at the CLI prompt:

```
bash$ path/nms/bin/nmserver.bash -s nms_status .\
```

where *path* is the 5620 SAM server installation location, typically */opt/5620sam/server*

The command returns server status information.

If the main server is not completely started, the first line of status information is the following:

```
Main Server is not ready...
```

The 5620 SAM server is completely started when the command returns the following line of output:

```
-- Standby Server is UP
```

- iii If the command output indicates that the server is not completely started, wait five minutes and enter the command again to check the output.

**190** If you specified not to start the server immediately after the upgrade, perform the following steps to start the 5620 SAM main server manually.

- i Log in to the main server station as the samadmin user.
- ii Enter the following at the CLI prompt to change to the server binary directory:

```
bash$ cd path/nms/bin ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

- iii Enter the following at the CLI prompt to start the 5620 SAM server software:

```
bash$./nmsserver.bash start ↵
```

- iv Enter the following at the CLI prompt:

```
bash$ path/nms/bin/nmsserver.bash -s nms_status ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

The command returns server status information.

If the main server is not completely started, the first line of status information is the following:

```
Main Server is not ready...
```

The 5620 SAM server is completely started when the command returns the following line of output:

```
-- Standby Server is UP
```

- v If the command output indicates that the server is not completely started, wait five minutes and enter the command again to check the output.

**191** Close the console window.

### Upgrade new standby auxiliary servers

**192** If the 5620 SAM deployment contains auxiliary servers, perform Procedure 4-6 on each preferred and reserved auxiliary server of the new standby main server to upgrade the auxiliary server software.



**Note** — Do not start the auxiliary servers immediately after you upgrade them; they are started later in this procedure.

### Start new standby auxiliary servers

**193** Perform the following steps on each preferred and reserved 5620 SAM auxiliary server of the new standby main server.

- i Log in to the auxiliary server station as the samadmin user.
- ii Open a console window.
- iii Enter the following at the CLI prompt to start the 5620 SAM server software:

```
bash$ path/nms/bin/auxnmserver.bash auxstart .
```

where *path* is the 5620 SAM auxiliary server installation location, typically /opt/5620sam/auxserver

The 5620 SAM auxiliary server starts. Initial server startup can take twenty minutes or more.

### Upgrade or install additional clients for redundant system

**194** Perform one of the following to upgrade or install the 5620 SAM client software on a Solaris station, if required.

- a Perform Procedure 3-2 or 3-3 to install a single-user client.
- b Perform Procedure 3-4 to install a client delegate server.
- c Perform Procedure 4-3 to upgrade a single-user client.
- d Perform Procedure 4-4 to upgrade a client delegate server.

**195** Perform one of the following to upgrade or install the 5620 SAM client software on a Windows station, if required.

- a Perform Procedure 2-3 or 2-4 to install a single-user client.
- b Perform Procedure 2-9 to upgrade a single-user client.

### Perform routing policy migration

**196** If you are upgrading from 5620 SAM Release 6.0 or 6.1, perform a routing policy migration using Procedure 1-1. See “Routing policy migration” in Chapter 1 for more information.

---

## 4.8 5620 SAM auxiliary server upgrade procedures

This section describes how to upgrade a 5620 SAM auxiliary server component for a standalone or redundant 5620 SAM system.

Procedure 4-6 describes how to upgrade the 5620 SAM auxiliary server software.



**Note** — Command-line examples use the following to represent the Solaris CLI prompts:

- #—represents the prompt for a root or root-equivalent user
- bash\$—represents the prompt for the samadmin and Oracle management users

Do not type the # symbol or bash\$ when entering a command.

---

### Procedure 4-6 To upgrade a 5620 SAM auxiliary server

---

Perform this procedure to upgrade the 5620 SAM auxiliary server software on a Solaris station. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



**Note** — You require the following user privileges on the auxiliary server station to perform this procedure:

- root or root-equivalent
- samadmin (if you are upgrading from 5620 SAM Release 6.1 or later)

- 1 Log in to the auxiliary server station as a user with root or root-equivalent privileges.
- 2 Open a console window.
- 3 Perform the following steps to ensure that no-one is logged in to the station as the samadmin user.
  - i Enter the following at the CLI prompt:  
  
# **who** ↵  
  
The active user sessions are listed.
  - ii If the samadmin user is listed, close each samadmin user session. See the appropriate Solaris documentation for more information.
- 4 Place the new 5620 SAM software DVD-ROM in a DVD-ROM drive.
- 5 Navigate to the DVD-ROM drive.

- 6 Perform one of the following to open the 5620 SAM server installer.
  - a On a Sun SPARC station:
    - i Enter the following at the CLI prompt:

```
cd Solaris ↵
```
    - ii Enter the following at the CLI prompt:

```
./ServerInstall_SAM_8_0_revision.bin ↵
```

where  
*revision* is the revision identifier, such as R1, R3, or another descriptor
  - b On a Sun X86-based station:
    - i Enter the following at the CLI prompt:

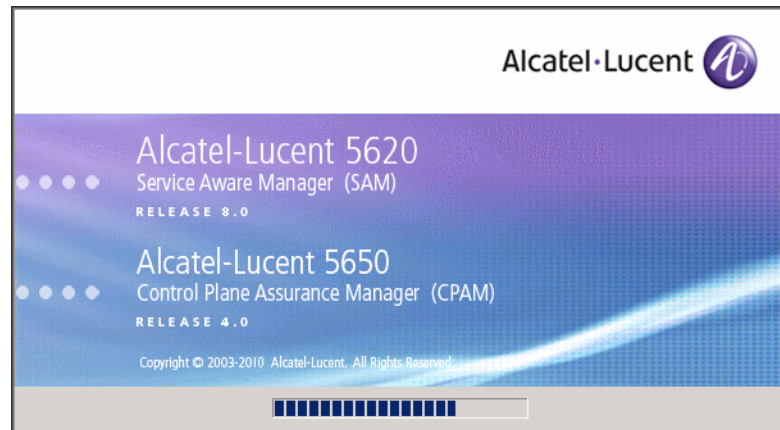
```
cd Solarisx86 ↵
```
    - ii Enter the following at the CLI prompt:

```
./ServerInstall_x86_SAM_8_0_revision.bin ↵
```

where  
*revision* is the revision identifier, such as R1, R3, or another descriptor

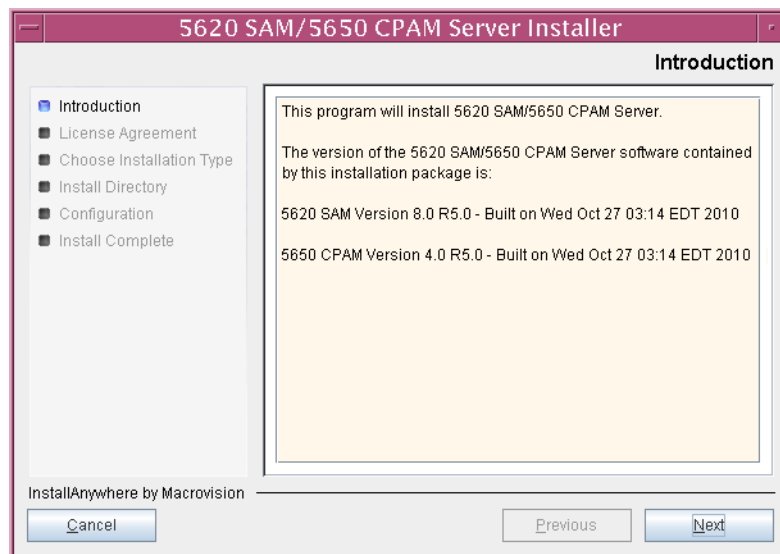
The splash screen shown in Figure 4-176 opens.

Figure 4-176 5620 SAM installer



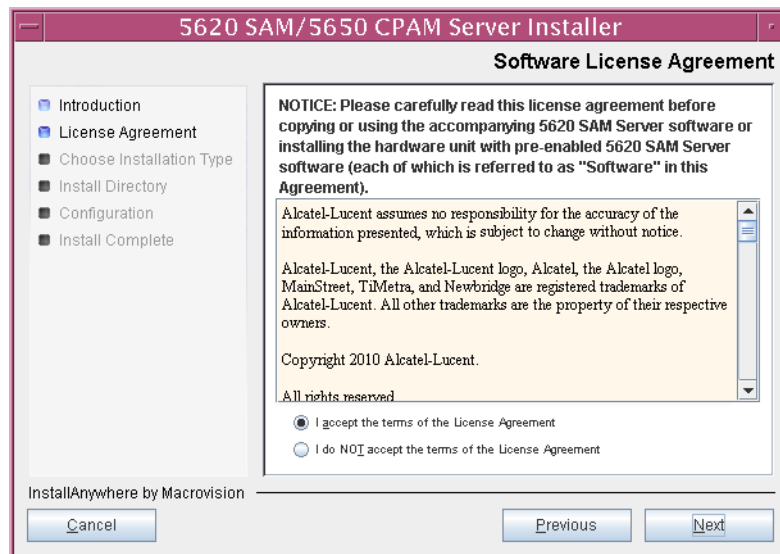
- 7 The 5620 SAM server installer opens, as shown in Figure 4-177. The left pane indicates upgrade progress. The right pane displays release information about the software. Click on the Next button.

Figure 4-177 Introduction



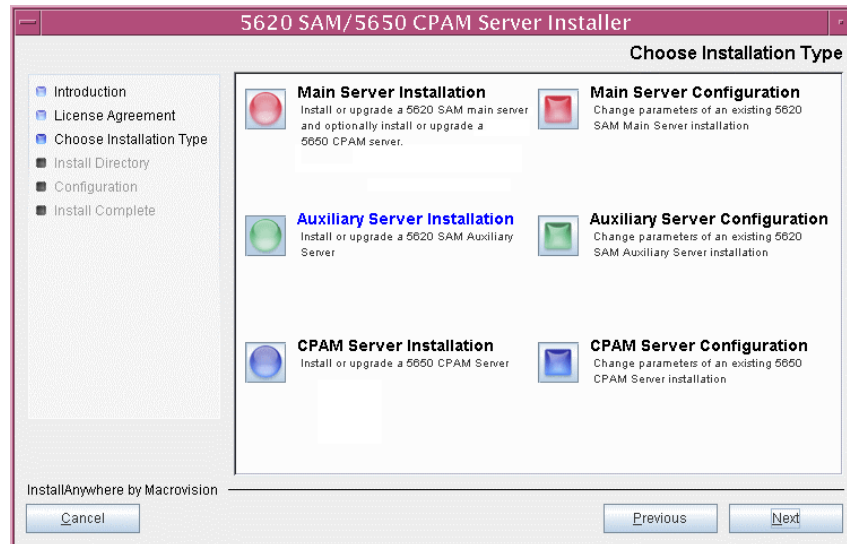
- 8 Review and accept the terms of the license agreement shown in Figure 4-178. Click on the Next button.

Figure 4-178 Software License Agreement



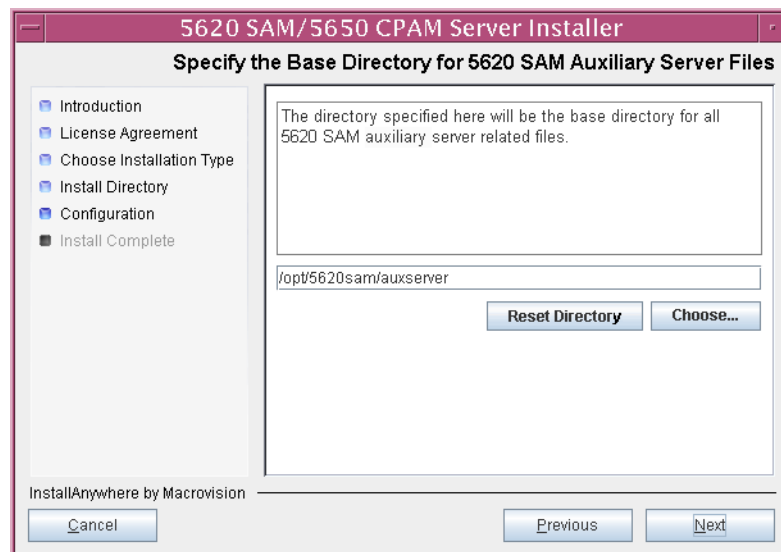
- 9 Select Auxiliary Server Installation, as shown in Figure 4-179. Click on the Next button.

Figure 4-179 Choose Installation Type



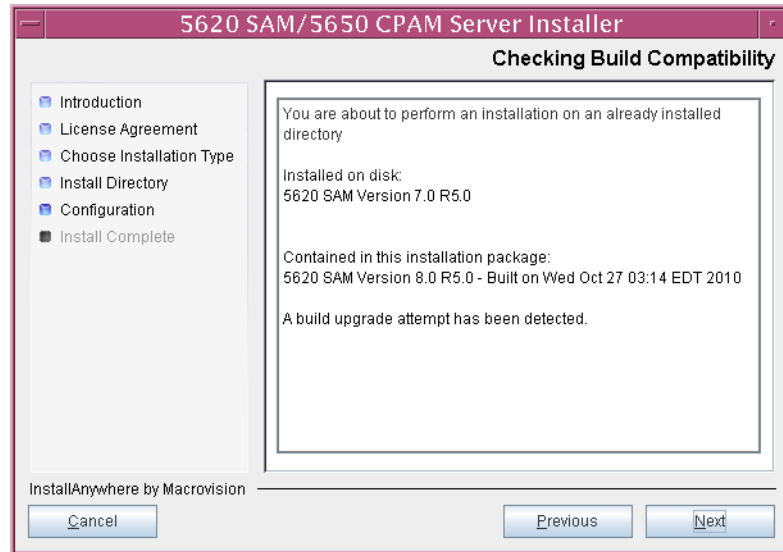
- 10 Specify the base directory in which the existing 5620 SAM auxiliary server software is installed (typically /opt/5620sam/auxserver), as shown in Figure 4-180. Click on the Next button.

Figure 4-180 Specify the Base Directory for 5620 SAM Auxiliary Server Files



- 11 As shown in Figure 4-181, the installer indicates which release of 5620 SAM software is currently installed and the release to which it is to be upgraded. Verify the information. Click on the Next button.

Figure 4-181 Checking Build Compatibility





## 12 Configure the parameters shown in Figure 4-182:

- **Server Domain Name** (typically 5620sam)  
This is the unique identifier of the 5620 SAM server cluster.
- **NAT (network address translation) Used**  
Select this parameter only if NAT is to be used between the 5620 SAM auxiliary server and the main servers.
- **Private IP (accessible only by this server)**  
You must configure this parameter if you select the NAT (network address translation) Used parameter.
- **Public IP (accessible to servers)**
- **Server Port** (typically 12800)
- **Redundancy Supported On the 5620 SAM Main Server**  
Select this parameter only if the 5620 SAM main servers are deployed in a redundant configuration.
- **Enable Stats Service**  
Select this parameter if the 5620 SAM auxiliary server is to be used for statistics collection.
- **Enable Call Trace Service**  
Select this parameter if the 5620 SAM auxiliary server is to be used for call trace.



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 4-182.

Figure 4-182 Auxiliary Server Address Configuration

5620 SAM/5650 CPAM Server Installer

**Auxiliary Server Address Configuration**

Enter the network interface information for the 5620 SAM auxiliary server. The domain name must be the same as the 5620 SAM main server's domain name.

Server Domain Name: 5620sam

☒ NAT (network address translation) Used

Private IP (accessible only by this server): 192.168.200.234

Public IP (accessible to servers):

Server Port: 12800

☐ Redundancy Supported On the 5620 SAM Main Server

☐ Enable Stats Service

☒ Enable Call Trace Service

InstallAnywhere by Macrovision

Cancel Previous Install

- 13 If you select “Enable Stats Service” in step 12, go to step 16.
- 14 The panel shown in Figure 4-183 is displayed if you select “Enable Call Trace Service” in step 12. Configure the following parameters, then click on the Next button to continue:
  - IPv6 Address Used
  - Call Trace Receiving IPv4 Address
  - Call Trace Receiving IPv6 Address
  - Call Trace Receiving Directory (typically /opt/5620sam/calltrace)
  - Debug Trace Receiving Directory (typically /opt/5620sam/debugtrace)



**Note 1** — The Call Trace Receiving IPv6 Address parameter is displayed only when the IPv6 Address Used parameter is selected, as shown in Figure 4-183.

**Note 2** — If NAT is to be used, each specified IP address must be a public IP address.

Figure 4-183 Auxiliary Server Call Trace Configuration

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window. The title bar is '5620 SAM/5650 CPAM Server Installer'. The main title is 'Auxiliary Server Call Trace Configuration'. On the left is a navigation pane with the following items: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (selected), and Install Complete. The main area contains a text box with instructions: 'If NAT (network address translation) is to be used, enter the 5620 SAM auxiliary server's public IP address(es) as known to the devices within the managed network. The chosen local directories will be used to store call trace and debug trace data collected from the eNodeBs in the managed network.' Below this are several fields: a checked checkbox for 'IPv6 Address Used', a 'Call Trace Receiving IPv4 Address' dropdown menu showing '192.168.200.234', an empty 'Call Trace Receiving IPv6 Address' text box, a 'Call Trace Receiving Directory' text box with '/opt/5620sam/calltrace' and 'Reset Directory' and 'Choose...' buttons, and a 'Debug Trace Receiving Directory' text box with '/opt/5620sam/debugtrace' and 'Reset Directory' and 'Choose...' buttons. At the bottom left is a 'Cancel' button, and at the bottom right are 'Previous' and 'Next' buttons. The footer text is 'InstallAnywhere by Macrovision'.

- 15 The panel shown in Figure 4-184 is displayed if you select “Enable Call Trace Service” in step 12. Configure the following parameters, then click on the Next button to continue:

- Enable Synchronization of Call Trace Data
- Local IP Address
- Remote IP Address



**Note** — The “Local IP Address” and “Remote IP Address” parameters are configurable only when the “Enable Synchronization of Call Trace Data” parameter is enabled.

Figure 4-184 Synchronization of Call Trace Data

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window. The title bar is purple. The main window has a left sidebar with a list of steps: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration, and Install Complete. The 'Configuration' step is selected. The main area is titled 'Auxiliary Server Call Trace Configuration'. It contains a text box with instructions: 'If NAT (network address translation) is to be used, enter the 5620 SAM auxiliary servers' public IP address. If synchronization is enabled, the collected call trace data will be available on both auxiliary servers.' Below this is a checkbox labeled 'Enable Synchronization of Call Trace Data' which is checked. Underneath are two input fields: 'Local IP Address' with the value '192.168.200.234' and a dropdown arrow, and 'Remote IP Address' which is empty. At the bottom left, it says 'InstallAnywhere by Macrovision' with a 'Cancel' button. At the bottom right, there are 'Previous' and 'Next' buttons.

- 16 Perform one of the following.
    - a If the “Redundancy Supported On the 5620 SAM Main Server” parameter in step 12 is disabled, configure the parameters shown in Figure 4-185:
- Main Server IP Address
  - Main Server Port (typically 12800)

Figure 4-185 Main Server Configuration

The screenshot shows a window titled "5620 SAM/5650 CPAM Server Installer". Inside, there is a section titled "Main Server Configuration". On the left, a vertical list of steps is shown: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (which is currently selected), and Install Complete. The main area of the window contains a text box with the instruction: "Enter the public IP address of the network interface on the 5620 SAM Main server that this 5620 SAM auxiliary server requires." Below this, there are two input fields: "Server IP Address" (which is highlighted in yellow) and "Server Port" (which contains the value "12800"). At the bottom of the window, there are three buttons: "Cancel", "Previous", and "Next". The text "InstallAnywhere by Macrovision" is visible in the bottom left corner of the window's content area.

- b If the “Redundancy Supported On the 5620 SAM Main Server” parameter in step 12 is enabled, configure the parameters shown in Figure 4-186:
- Server One IP Address
  - Server One Port (typically 12800)
  - Server Two IP Address
  - Server Two Port (typically 12800)

Figure 4-186 Main Server Configuration

The screenshot shows the 'Main Server Configuration' window of the '5620 SAM/5650 CPAM Server Installer'. The window has a sidebar with a list of steps: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration, and Install Complete. The 'Configuration' step is currently selected. The main area contains a text box with the instruction: 'Enter the public IP addresses of the network interfaces on the 5620 SAM main server that this 5620 SAM auxiliary server requires.' Below this, there are four input fields: 'Server One IP Address' (highlighted in yellow), 'Server One Port' (with '12800' entered), 'Server Two IP Address' (highlighted in yellow), and 'Server Two Port' (with '12800' entered). At the bottom, there are 'Cancel', 'Previous', and 'Next' buttons, and a footer that reads 'InstallAnywhere by Macrovision'.

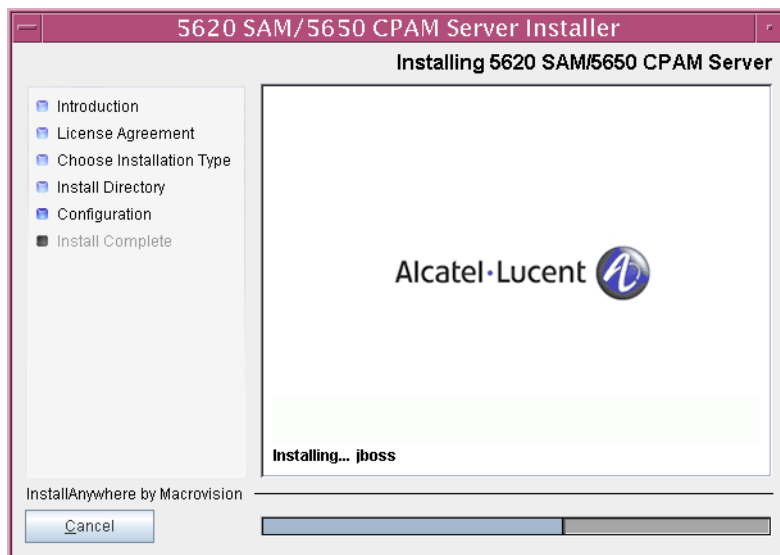
- 17 Specify an OSS XML output location (typically /opt/5620sam/auxserver/xml\_output), as shown in Figure 4-187. Click on the Install button to begin the auxiliary server upgrade.

Figure 4-187 XML Output Directory

The screenshot shows the 'XML Output Directory' window of the '5620 SAM/5650 CPAM Server Installer'. The window has a sidebar with the same list of steps as Figure 4-186, with 'Configuration' selected. The main area contains a text box with the instruction: 'The output of the OSS file exports will be stored under this directory'. Below this is a text input field containing the path '/opt/5620sam/auxserver/xml\_output'. To the right of the input field are two buttons: 'Reset Directory' and 'Choose...'. At the bottom, there are 'Cancel', 'Previous', and 'Install' buttons, and a footer that reads 'InstallAnywhere by Macrovision'.

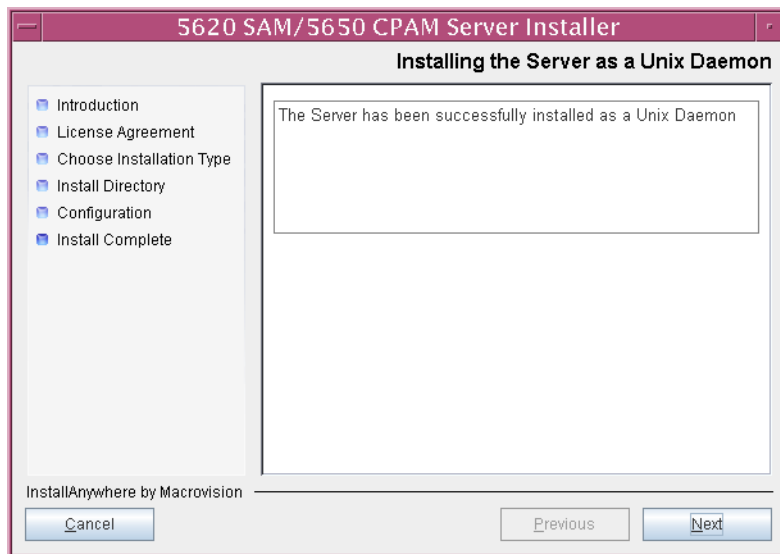
The next panel displays upgrade progress, as shown in Figure 4-188.

Figure 4-188 Installing 5620 SAM/5650 CPAM Server



- 18 As shown in Figure 4-189, the 5620 SAM auxiliary server is installed as a UNIX daemon. Click on the Next button.

Figure 4-189 Installing the Server as a Unix Daemon

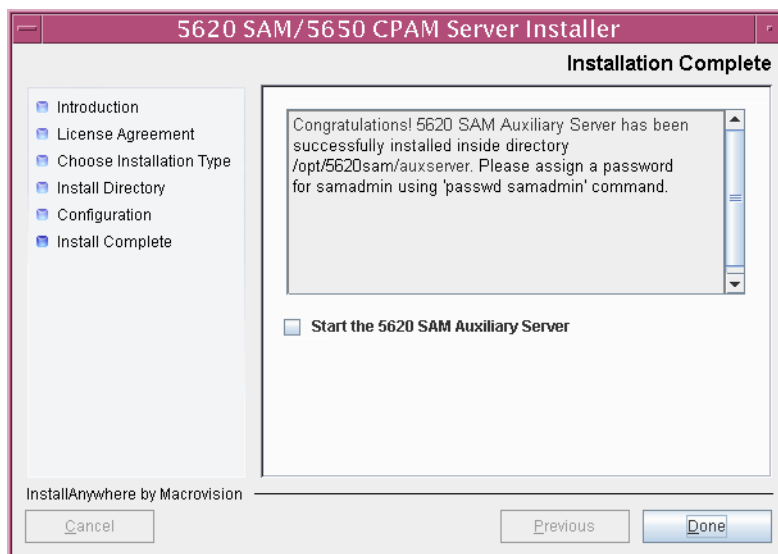


- 19 When the server upgrade is complete, as shown in Figure 4-190, configure the “Start the 5620 SAM Auxiliary Server” parameter to specify whether you want the server to start immediately after the upgrade.



**Caution** — If you are upgrading the auxiliary server as part of a redundant 5620 SAM system upgrade, do not configure the server to start immediately after the upgrade.

Figure 4-190 Installation Complete



If you specify not to start the auxiliary server immediately after the upgrade, you can start it later by performing the following steps.

- i Log in to the auxiliary server station as the samadmin user.
- ii Open a console window.
- iii Enter the following at the CLI prompt to start the 5620 SAM server software:

```
bash$ path/nms/bin/auxnmserver.bash auxstart .
```

where *path* is the 5620 SAM auxiliary server installation location, typically /opt/5620sam/auxserver

The 5620 SAM auxiliary server starts. Initial server startup can take twenty minutes or more.



**Note** — The order in which a 5620 SAM auxiliary server and the primary 5620 SAM main server initialize is unimportant. A 5620 SAM server synchronizes with an auxiliary server as soon as it is able to communicate with the auxiliary server.

- 20 View the panel text to see whether it states that you must assign a password to samadmin, as shown in Figure 4-190. This information is required in step 22.

- 21 Click on the Done button to close the server installer. If you specified that the server is to start after the upgrade, the server starts. Initial server startup can take twenty minutes or more.
- 22 If you are upgrading from 5620 SAM Release 6.0, the installer creates a user account called samadmin for 5620 SAM system administration.

If you must assign a password to samadmin, as determined in step 20, perform the following steps.

- i Enter the following at the CLI prompt:

```
passwd samadmin
```

The following prompt is displayed:

```
New Password:
```

- ii Enter the new password and press ↵.

The following prompt is displayed:

```
Confirm New Password:
```

- iii Enter the new password again and press ↵. The password is changed.
  - iv Record the new password and store it in a secure location.
-



## *5 — 5620 SAM conversion to redundancy*

---

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- 5.2 5620 SAM conversion to redundancy procedures list 5-2
- 5.3 Workflow for 5620 SAM conversion to redundancy 5-3
- 5.4 5620 SAM conversion to redundancy procedures 5-3

## 5.1 5620 SAM conversion to redundancy overview

Before you attempt to perform a procedure in this chapter, ensure that you understand and comply with the relevant requirements, considerations, and precautions described in chapter 1 of this document.



**Caution 1** — Converting a 5620 SAM system from standalone to redundant requires that you thoroughly understand the general and OS-specific requirements. It is essential that the conversion procedure be planned, documented and tested in advance on a lab system that is representative of the target live network.

Contact Alcatel-Lucent technical support to assess the conversion requirements for your network implementation of the 5620 SAM. Alcatel-Lucent offers an upgrade service and strongly recommends that it be engaged for conversions in larger or more complex networks.

**Caution 2** — Alcatel-Lucent supports 5620 SAM software configuration only under the conditions described in chapter 1.



**Note 1** — You cannot convert a standalone 5620 SAM system to redundancy as part of a 5620 SAM system upgrade. To upgrade your 5620 SAM system and convert it to redundancy, you must upgrade the system before you perform the conversion.

**Note 2** — You require a second 5620 SAM license key for the new standby main server. The new key must have the same capacity specifications as the existing key, and must be generated specifically for the new 5620 SAM server station. Contact Alcatel-Lucent technical support for more information about license keys.

## 5.2 5620 SAM conversion to redundancy procedures list

Table 5-1 lists the procedures required to perform the conversion of a standalone 5620 SAM system on a Solaris platform to a redundant system on a Solaris platform.

Table 5-1 5620 SAM conversion to redundancy procedures list

| Procedure                                                                                | Purpose                                                                                                                  |
|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| <a href="#">To convert a standalone 5620 SAM system on Solaris to a redundant system</a> | Convert a standalone 5620 SAM system on one or more Solaris stations to a redundant 5620 SAM system on Solaris stations. |

## 5.3 Workflow for 5620 SAM conversion to redundancy

The following is the sequence of high-level actions required to convert a standalone 5620 SAM system on Solaris to a redundant system. A section heading in quotation marks is a reference to a section in Procedure 5-1.

- 1 Back up the 5620 SAM configuration files. See [“Back up configuration files”](#) for more information.
- 2 Gather the system information required for the conversion. See [“Gather required information”](#) for more information.
- 3 Close the unrequired 5620 SAM client sessions. See [“Close client sessions”](#) for more information.
- 4 Close the 5620 SAM LogViewer application, if it is running. See [“Close 5620 SAM LogViewer”](#) for more information.
- 5 Back up the 5620 SAM database. See [“Back up database”](#) for more information.
- 6 Stop the 5620 SAM server. See [“Stop server”](#) for more information.
- 7 Disable the 5620 SAM server startup daemon. See [“Disable server daemon”](#) for more information.
- 8 Convert the standalone database to a primary database. See [“Convert standalone database to primary database”](#) for more information.
- 9 Convert the standalone server to a primary server. See [“Convert standalone server to primary server”](#) for more information.
- 10 Create an Oracle management user account and configure the associated system parameters on the standby database station. See [“Prepare new standby database station for standby database installation”](#) for more information.
- 11 Install the standby database. See [“Install standby database”](#) for more information.
- 12 Install the standby server. See [“Install standby server”](#) for more information.
- 13 Reinstantiate the database on the standby database station. See [“Reinstantiate standby database”](#) for more information.
- 14 Use a 5620 SAM client to perform sanity testing on the newly redundant 5620 SAM system, as required.

## 5.4 5620 SAM conversion to redundancy procedures

This section describes how to convert a standalone 5620 SAM system on Solaris to a redundant system on Solaris.

Procedure 5-1 describes how to convert a standalone 5620 SAM system to a redundant system.



**Note —** Command-line examples use the following to represent the Solaris CLI prompts:

- #—represents the prompt for a root or root-equivalent user
- bash\$—represents the prompt for the samadmin and Oracle management users

Do not type the # symbol or bash\$ when entering a command.

### Procedure 5-1 To convert a standalone 5620 SAM system on Solaris to a redundant system

---

Perform this procedure to convert a standalone 5620 SAM system on a Solaris platform to a redundant 5620 SAM system. This involves converting the standalone main server and database to a primary main server and database, installing the standby main server and database software, and reinstantiating the new primary database on the new standby database station. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



**Note 1 —** You require the following user privileges to perform this procedure:

on the current standalone server station:

- root or root-equivalent
- samadmin

on the station that is to be the new standby main server station:

- root or root-equivalent

on each database station:

- root or root-equivalent
- Oracle management

**Note 2 —** The samadmin user account is created on the new standby main server station during this procedure.

**Note 3 —** The Oracle management user account is created on the standby database station during this procedure.

## Back up configuration files

- 1 Make a backup copy of each file that you have created or customized in or under the *path/nms* and *path/jre* directories on each server station

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server



**Note —** At the beginning of a 5620 SAM server upgrade, the 5620 SAM installation utility backs up specific configuration and log files to a timestamped directory under the installation directory. The utility then deletes directories under the server installation directory. If you have created or customized a file under the installation directory, you risk losing the file unless you back up the file before the upgrade to a storage location that is unaffected by the upgrade.

Store the files in a secure location that is unaffected by 5620 SAM upgrade activity.

- 2 Make a copy of any custom XML configuration files in the *path/nms/jboss* directory on the server station

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server



**Note —** The upgrade process re-installs and potentially modifies the format of the XML files in the jboss directory. You can use the copy of the pre-upgrade XML files as a reference for restoring your custom configuration, but you cannot use the files as part of the upgraded server installation. Copying the files to the new jboss directory after the upgrade does not restore the configuration specified in the XML files.

Store the files in a secure location that is unaffected by the 5620 SAM conversion activity, such as a non-5620 SAM station.

## Gather required information

- 3 Obtain the following information from the main server station and record it for use during the conversion:
  - hostname, which is one of the following:
    - the hostname specified for the main server station during the previous 5620 SAM software installation or upgrade
    - the local hostname, if an IP address was specified for the main server station during the previous 5620 SAM software installation or upgrade
  - IP addresses
    - server IP addresses used by the current and new 5620 SAM databases to reach the server (public IP addresses, if NAT is used)
    - server IP address used by 5620 SAM GUI and OSS clients to reach this server (public IP address, if NAT is used)
    - server IP address used by 5620 SAM auxiliary servers to reach this server (public IP address, if NAT is used)
    - private server IP address (if NAT is used)
  - root user password

- 4 Obtain the following information from the database station and record it for use during the conversion:
  - hostname
  - IP addresses
    - database IP addresses used by the current and new 5620 SAM servers to reach the database on this station (public IP addresses, if NAT is used)
    - database IP address used by 5620 SAM auxiliary servers to reach the database on this station (public IP address, if NAT is used)
    - private database IP address (if NAT is used)
  - root user password
  - UNIX username for Oracle management account (default value at installation is oracle)
  - Oracle database user ID (default value at installation is samuser)
  - Oracle database user password
  - Oracle SYS password
  - Oracle base installation directory name (default value at installation is /opt/5620sam/oracle)
  - 5620 SAM database installation directory name (default value at installation is /opt/5620sam/samdb)
- 5 If the 5620 SAM system includes one or more auxiliary servers, perform the following steps. Otherwise, go to step 7.
  - i Open a 5620 SAM client.
  - ii Choose Administration→System Information from the 5620 SAM main menu. The System Information window is displayed.
  - iii Click on the Auxiliary Servers tab button.
- 6 Perform the following steps for each auxiliary server listed on the form:
  - i Select an auxiliary server in the list and click on the Properties button. The properties form for the auxiliary server opens.
  - ii Record the following information for use during the upgrade:
    - Host Name
    - Port Number
    - Auxiliary Server Type
    - Server Status
    - Public IP address
    - Private IP address (if displayed)
  - iii Close the auxiliary server properties form.

- 7 If the 5620 SAM system includes one or more client delegate servers, perform the following steps. Otherwise, go to step 9.
  - i Open a 5620 SAM client.
  - ii Choose Administration→System Information from the 5620 SAM main menu. The System Information window is displayed.
  - iii Click on the Client Delegate Servers tab button.
- 8 Perform the following steps for each client delegate server listed on the form:
  - i Select a client delegate server in the list and click on the Properties button. The properties form for the client delegate server opens.
  - ii Record the IP Address value for use during the upgrade.
  - iii Close the client delegate server properties form.
- 9 Close the System Information form, if it is open.

#### Close client sessions

- 10 Close all unrequired open 5620 SAM client sessions.
  - i Open a 5620 SAM client session using an account with security management privileges, such as admin.
  - ii Click on Administration→Security→5620 SAM User Security in the 5620 SAM main menu. The 5620 SAM User Security - Security Management (Edit) form opens with the General tab displayed.
  - iii Click on the Sessions tab button.
  - iv Click on the Search button. The form displays a list of the open 5620 SAM client sessions.
  - v Using the IP addresses in the Client IP column, identify the GUI and OSS clients that are currently logged in.
  - vi Close the client sessions by selecting them and clicking on the Close Session button. A dialog box appears.



**Note —** One of the listed sessions is the session that you are using. Do not attempt to close this session.

- vii Click on the Yes button to confirm the action.
- viii Click on the Search button to refresh the list of open client sessions.

### Close 5620 SAM LogViewer

- 11 If you are upgrading from 5620 SAM Release 6.1 or later, close the 5620 SAM LogViewer application, if it is open.



**Caution** — If the 5620 SAM LogViewer is running during a 5620 SAM upgrade, the upgrade fails.

### Back up database

- 12 Perform one of the following to back up the 5620 SAM database.



**Caution** — When you back up a 5620 SAM database, you must specify a backup directory that does not include the 5620 SAM database installation directory, or data loss may occur. The default 5620 SAM database installation directory is /opt/5620sam/samdb.

- a Use a 5620 SAM client GUI to back up the database. See the *5620 SAM User Guide* for information about performing database backups using the client GUI.
- b Use a CLI script to back up the database. Perform the following steps.
  - i Log in to the database station as the Oracle management user.
  - ii Open a console window.
  - iii Enter the following at the CLI prompt to begin the database backup:

```
bash$ path/install/config/samdb/SAMbackup.sh
backup_directory ↵
```

where

*path* is the 5620 SAM database installation location, typically /opt/5620sam/samdb  
*backup\_directory* is the directory that is to contain the database backup

The 5620 SAM backs up the database.

- iv Record the backup directory location.
- v Copy the database backup files from the backup directory to a secure location, such as a non-5620 SAM station, for safekeeping.

### Stop server

- 13 Perform the following steps to stop the 5620 SAM main server application.
  - i Log in to the main server station as the samadmin user.
  - ii Open a console window.



- iii Enter the following at the CLI prompt to change to the server binary directory:

```
bash$ cd path/nms/bin ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

- iv Enter the following at the CLI prompt to stop the 5620 SAM server software:

```
bash$./nmsserver.bash stop ↵
```

- v Enter the following at the CLI prompt to display the 5620 SAM server status:

```
bash$./nmsserver.bash appserver_status ↵
```

The command displays a status message.

- vi The 5620 SAM server is stopped when the command displays the following status message:

```
Application Server is stopped
```

If the command displays a different message, wait 5 m and repeat step 13 v. Do not proceed to the next step until the server is stopped.

#### Disable server daemon

- 14 Disable the 5620 SAM server startup daemon. This ensures that the 5620 SAM server does not automatically start in the event of a power disruption during the conversion.

- i Enter the following at the CLI prompt to switch to the root user:

```
bash$ su - ↵
```

- ii Enter the following at the CLI prompt to change to the /etc/rc3.d directory:

```
cd /etc/rc3.d ↵
```

- iii Enter the following at the CLI prompt to disable the 5620 SAM server daemon by renaming it:

```
mv S975620SAMServerWrapper
inactive.S975620SAMServerWrapper ↵
```

The next section of the procedure describes the conversion of the standalone 5620 SAM database to the primary database in a redundant system.

#### Convert standalone database to primary database

- 15 Log in to the database station as the Oracle management user.
- 16 Open a console window.
- 17 Place the 5620 SAM software DVD-ROM in a DVD-ROM drive.
- 18 Navigate to the DVD-ROM drive.

19 Perform one of the following to open the 5620 SAM database installer.

a On a Sun SPARC station:

i Enter the following at the CLI prompt:

```
bash$ cd Solaris ↵
```

ii Enter the following at the CLI prompt:

```
bash$./DBConfig_SAM_8_0_revision.bin ↵
```

where

*revision* is the revision identifier, such as R1, R3, or another descriptor

b On a Sun X86-based station:

i Enter the following at the CLI prompt:

```
bash$ cd Solarisx86 ↵
```

ii Enter the following at the CLI prompt:

```
bash$./DBConfig_x86_SAM_8_0_revision.bin ↵
```

where

*revision* is the revision identifier, such as R1, R3, or another descriptor

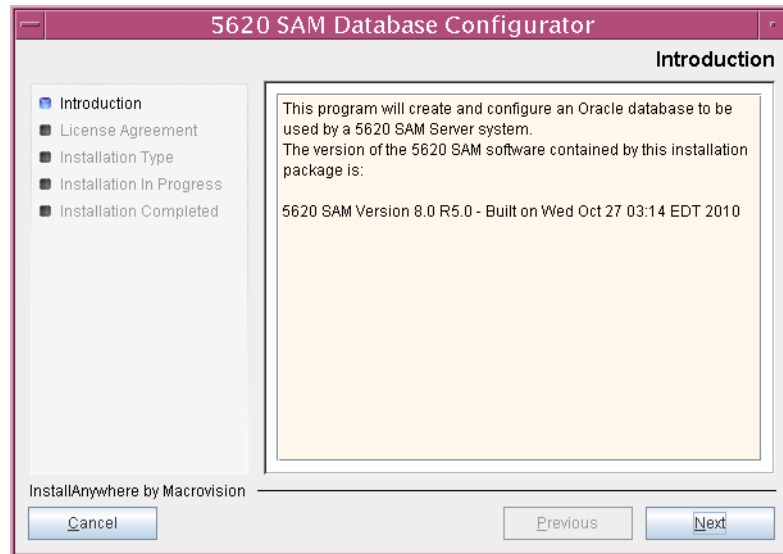
The splash screen shown in Figure 5-1 opens.

Figure 5-1 5620 SAM installer



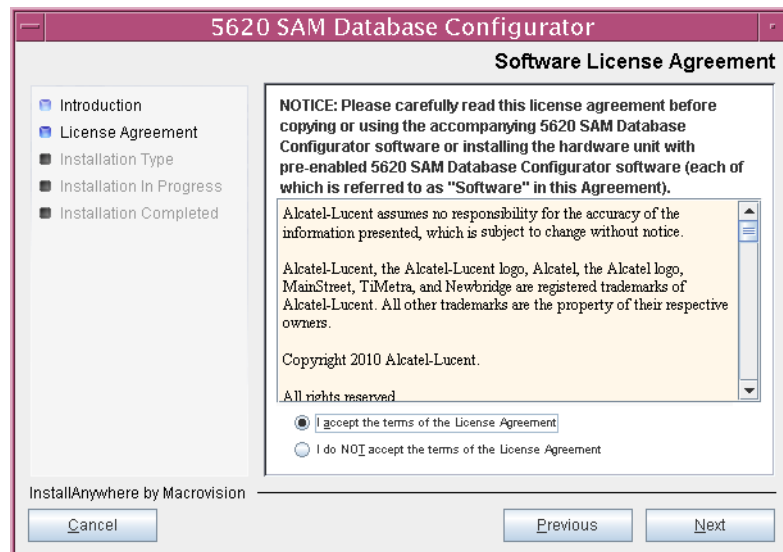
- 20 The 5620 SAM database installer opens, as shown in Figure 5-2. The left pane indicates installation progress. The right pane displays release information about the software. Click on the Next button.

Figure 5-2 Introduction



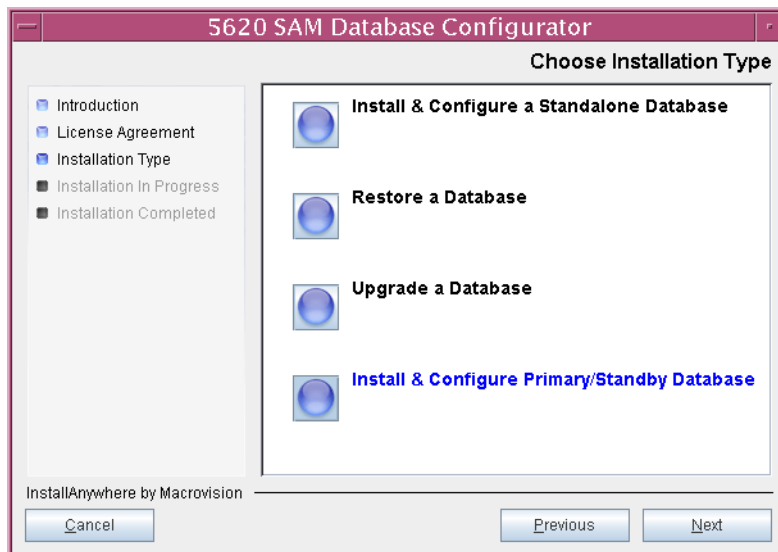
- 21 Review and accept the terms of the license agreement shown in Figure 5-3. Click on the Next button.

Figure 5-3 Software License Agreement



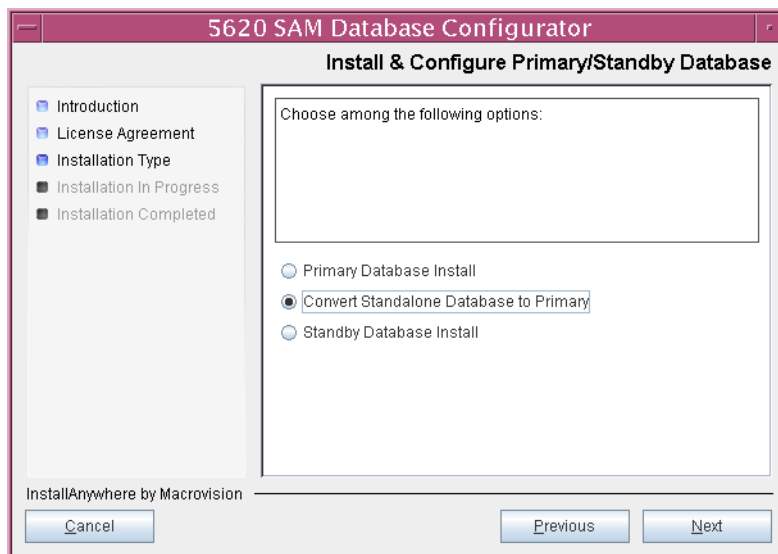
- 22 Select Install & Configure Primary/Standby Database, as shown in Figure 5-4. Click on the Next button.

Figure 5-4 Choose Installation Type



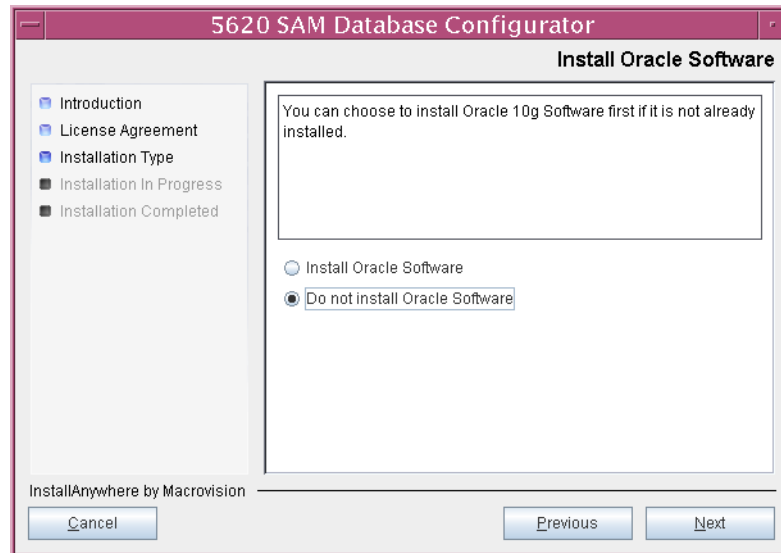
- 23 Select Convert Standalone Database to Primary, as shown in Figure 5-5. Click on the Next button.

Figure 5-5 Install & Configure Primary/Standby Database



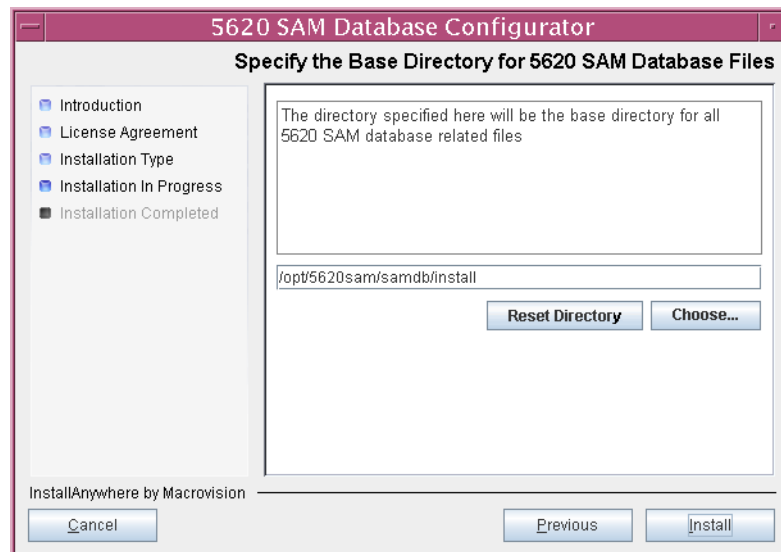
- 24 Select Do not Install Oracle Software, as shown in Figure 5-6. Click on the Next button.

Figure 5-6 Install Oracle Software



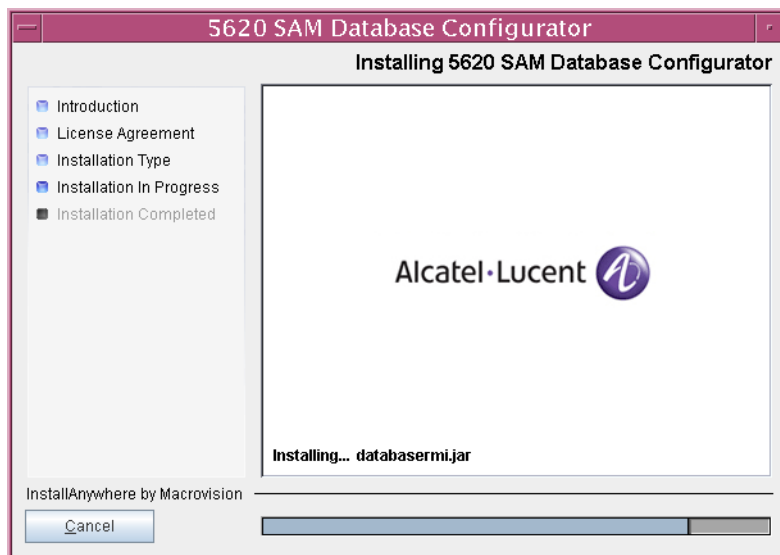
- 25 Specify the base directory in which the existing 5620 SAM database software is installed (typically /opt/5620sam/samdb/install), as shown in Figure 5-7. Click on the Install button to begin the database conversion.

Figure 5-7 Specify the Base Directory for 5620 SAM Database Files



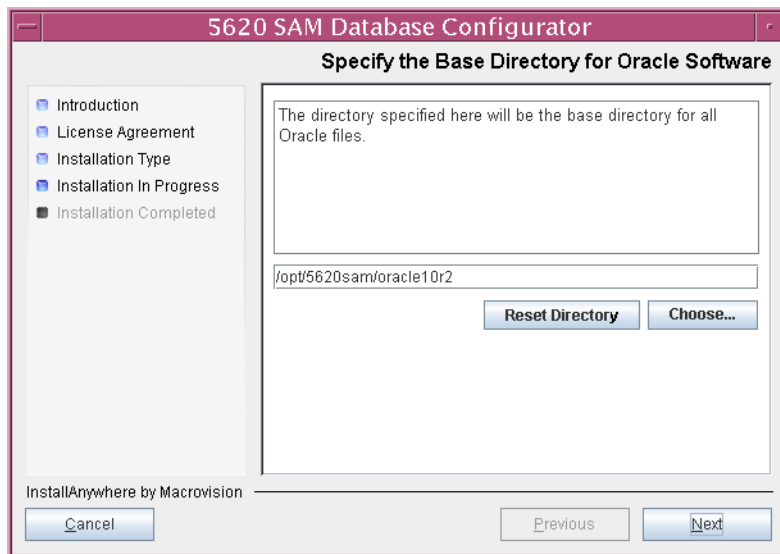
The installer prepares to convert the database, as shown in Figure 5-8.

Figure 5-8 Installing 5620 SAM Database Configurator



- 26 The panel shown in Figure 5-9 displays the Oracle software installation directory, which cannot be changed. Click on the Next button.

Figure 5-9 Specify the Base Directory for Oracle Software



27 Configure the following parameters shown in Figure 5-10, then click on the Next button:

- NAT (network address translation) Used
- Public IP (accessible to servers)
- Private IP
- Database Name (typically samdb)
- Instance Name (typically samdb)
- User Name (typically samuser)
- User Password



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected.

Figure 5-10 Standalone Database Info

The screenshot shows the '5620 SAM Database Configurator' window with the 'Standalone Database Info' tab selected. On the left is a navigation pane with options: Introduction, License Agreement, Installation Type, Installation In Progress (selected), and Installation Completed. The main area contains instructions: 'Enter the network interface information that the database will use to communicate with the servers. If NAT (network address translation) is to be used, specify both the database's private and public IP addresses.' Below this is a checkbox for 'NAT (network address translation) Used' which is checked. Fields include 'Public IP (accessible to servers)' with a dropdown showing '192.168.200.133', 'Database Name' with 'samdb', 'Instance Name' with 'samdb', 'User Name' with 'samuser', and 'User Password' with masked characters. At the bottom are 'Cancel', 'Previous', and 'Next' buttons, and the text 'InstallAnywhere by Macrovision'.

- 28 Configure the following parameters shown in Figure 5-11, then click on the Next button:
- Database Listener Port (typically 1523)
  - Database Proxy Port (typically 9002)
  - Database File Server Port (typically 9003)

Figure 5-11 Standalone Database Info (cont.)

The screenshot shows the '5620 SAM Database Configurator' window with the 'Standalone Database Info (cont.)' tab selected. On the left, a navigation pane lists: Introduction, License Agreement, Installation Type, Installation In Progress, and Installation Completed. The main area contains three text input fields: 'Database Listener Port' with the value '1523', 'Database Proxy Port' with the value '9002', and 'Database File Server Port' with the value '9003'. At the bottom, there are 'Cancel', 'Previous', and 'Next' buttons. The text 'InstallAnywhere by Macrovision' is visible in the bottom left corner.

- 29 If the 5620 SAM server and database are installed on the same station, select the "Database co-exists with a 5620 SAM Server" parameter shown in Figure 5-12. Click on the Next button.

Figure 5-12 Determine Memory Requirements

The screenshot shows the '5620 SAM Database Configurator' window with the 'Determine Memory Requirements' tab selected. The left navigation pane is identical to Figure 5-11. The main area contains a text box with the instruction: 'Specify whether a 5620 SAM Server is installed on this workstation. The database memory requirements will be adjusted to account for the additional load.' Below this, there is a checked checkbox labeled 'Database co-exists with a 5620 SAM Server'. At the bottom, there are 'Cancel', 'Previous', and 'Next' buttons. The text 'InstallAnywhere by Macrovision' is visible in the bottom left corner.



- 30 If the “Enable SAM Server IP Validation” parameter shown in Figure 5-13 is selected, only the servers at the specified IP addresses or hostnames can connect to the database. If required, select it and configure the following parameters. Click on the Next button.
- Server One IP Address
  - Server Two IP Address

Figure 5-13 Main Server IP Validation

The screenshot shows the "5620 SAM Database Configurator" window. On the left is a navigation pane with five items: "Introduction", "License Agreement", "Installation Type", "Installation In Progress", and "Installation Completed". The "Installation In Progress" item is currently selected. The main area of the window is titled "Main Server IP Validation". It contains a text box with the following text: "If Network Address Translation is to be used, enter the 5620 SAM Main Server(s) public address(es), as known to this 5620 SAM Database. If IP address validation is enabled, the database will allow only connections from the specified server(s).". Below this text box is a checkbox labeled "Enable SAM Server IP Validation". Underneath the checkbox are two text input fields: "Server One IP Address" and "Server Two IP Address". At the bottom of the window, there is a status bar that says "InstallAnywhere by Macrovision". To the right of the status bar are three buttons: "Cancel", "Previous", and "Next".

- 31 Configure the following standby database parameters shown in Figure 5-14, record the information for use later in the procedure, then click on the Next button:
- Standby IP Address
  - Standby Instance Name (typically samdb2)
  - Standby Oracle Home (typically /opt/5620sam/oracle10r2)
  - Standby Archive Log Destination (typically /opt/5620sam/samdb/archivelog)

Figure 5-14 Standby Database Info

The screenshot shows the '5620 SAM Database Configurator' window. On the left is a navigation pane with five items: 'Introduction' (selected), 'License Agreement', 'Installation Type', 'Installation In Progress', and 'Installation Completed'. The main area is titled 'Standby Database Info' and contains a text box with instructions: 'If NAT (network address translation) is to be used, enter the primary 5620 SAM database's public IP address, as known to the 5620 SAM server.' Below this are four input fields: 'Standby IP Address' (empty), 'Standby Instance Name' (containing 'samdb2'), 'Standby Oracle Home' (containing '/opt/5620sam/oracle10r2'), and 'Standby Archive Log Destination' (containing '/opt/5620sam/samdb/archivelog'). At the bottom left is the text 'InstallAnywhere by Macrovision' and a 'Cancel' button. At the bottom right are 'Previous' and 'Next' buttons.

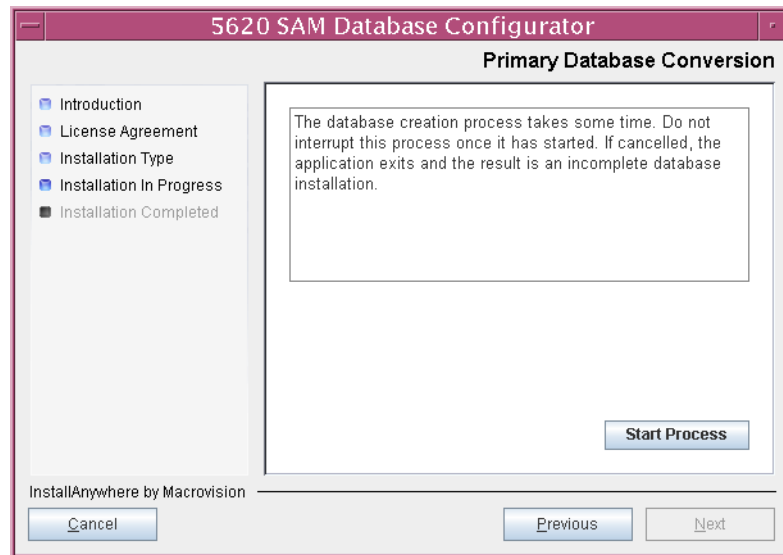
The installer prepares to convert the database, as shown in Figure 5-15.

Figure 5-15 Please Wait

The screenshot shows the '5620 SAM Database Configurator' window. The navigation pane on the left is the same as in Figure 5-14. The main area is titled 'Please Wait' and contains a text box with the message: 'Please wait, 5620 SAM Database Configurator is being configured for your system. This may take a moment...'. At the bottom left is the text 'InstallAnywhere by Macrovision' and a 'Cancel' button. At the bottom right are 'Previous' and 'Next' buttons.

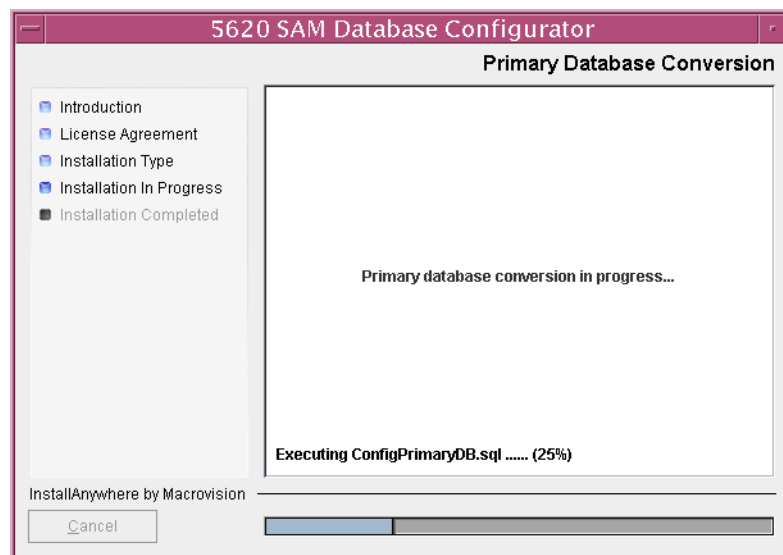
- 32 Click on the Next button.
- 33 You are prompted to begin primary database conversion, as shown in Figure 5-16. Database conversion can take one hour or more, depending on the tablespace configuration. Click on the Start Process button to begin the database conversion.

Figure 5-16 Primary Database Conversion



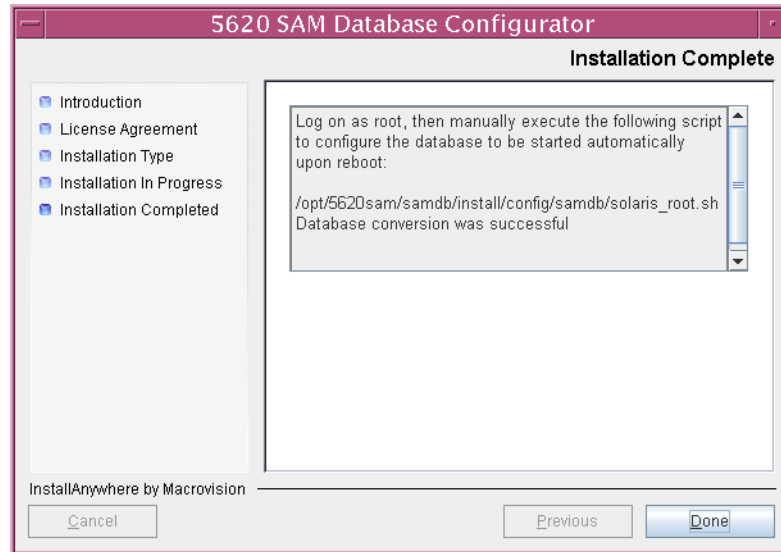
The next panel displays conversion progress, as shown in Figure 5-17.

Figure 5-17 Primary Database Conversion



- 34 When the panel in Figure 5-18 is displayed, the 5620 SAM database conversion is complete, but as shown in the panel text, you must run a script to enable automatic database startup.

Figure 5-18 Installation Complete



Perform the following steps to run the script described in the panel.

- i Open a separate console window as a user with root or root-equivalent privileges.
- ii Enter the following at the CLI prompt:

```
path/install/config/samdb/solaris_root.sh
```

where *path* is the 5620 SAM database installation location, typically /opt/5620sam/samdb

The script returns messages similar to the following:

```
re-creating link for /usr/local/lib/libiconv.so.2
re-creating link for /usr/local/lib/libpopt.so.0
re-creating link for /usr/local/lib/libintl.so.8
re-creating link for /usr/local/lib/libgcc_s.so.1
```

- iii When the script execution is complete, close the console window.

- 35 Click on the Done button to close the database installer.

The next section of the procedure describes the conversion of the standalone 5620 SAM server to the primary 5620 SAM server. Server conversion requires root-equivalent privileges.

**Convert standalone server to primary server**

- 36 Log in to the standalone server station as a user with root or root-equivalent privileges.
- 37 Perform the following steps to ensure that no-one is logged in to the station as the samadmin user.
  - i Enter the following at the CLI prompt:  

```
who ↵
```

The active user sessions are listed.
  - ii If the samadmin user is listed, close each samadmin user session. See the appropriate Solaris documentation for more information.
- 38 Place the 5620 SAM software DVD-ROM in a DVD-ROM drive.
- 39 Navigate to the DVD-ROM drive.
- 40 Perform one of the following to open the 5620 SAM server installer.
  - a On a Sun SPARC station:
    - i Enter the following at the CLI prompt:  

```
cd Solaris ↵
```
    - ii Enter the following at the CLI prompt:  

```
./ServerInstall_SAM_8_0_revision.bin ↵
```

where  
*revision* is the revision identifier, such as R1, R3, or another descriptor
  - b On a Sun X86-based station:
    - i Enter the following at the CLI prompt:  

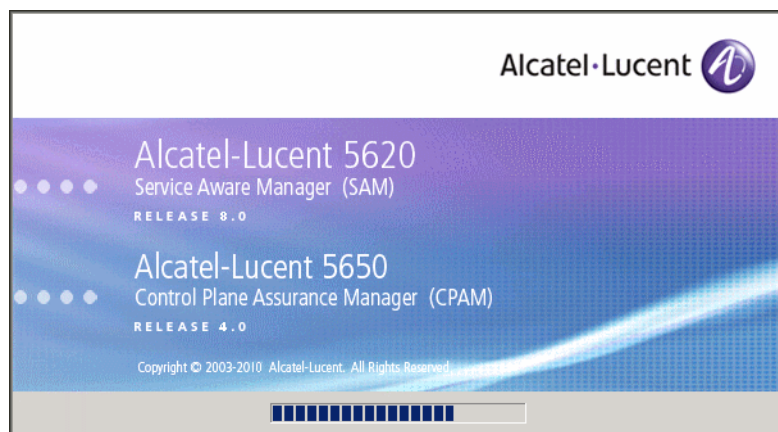
```
cd Solarisx86 ↵
```
    - ii Enter the following at the CLI prompt:  

```
./ServerInstall_x86_SAM_8_0_revision.bin ↵
```

where  
*revision* is the revision identifier, such as R1, R3, or another descriptor

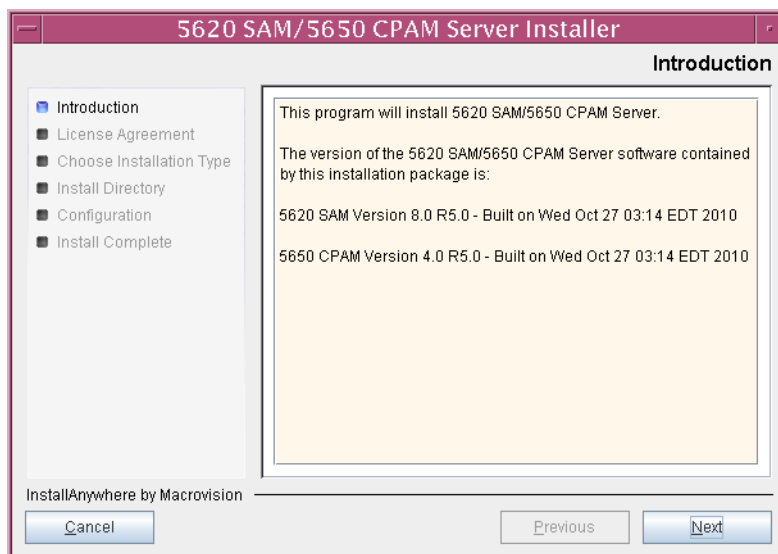
The splash screen shown in Figure 5-19 opens.

Figure 5-19 5620 SAM installer



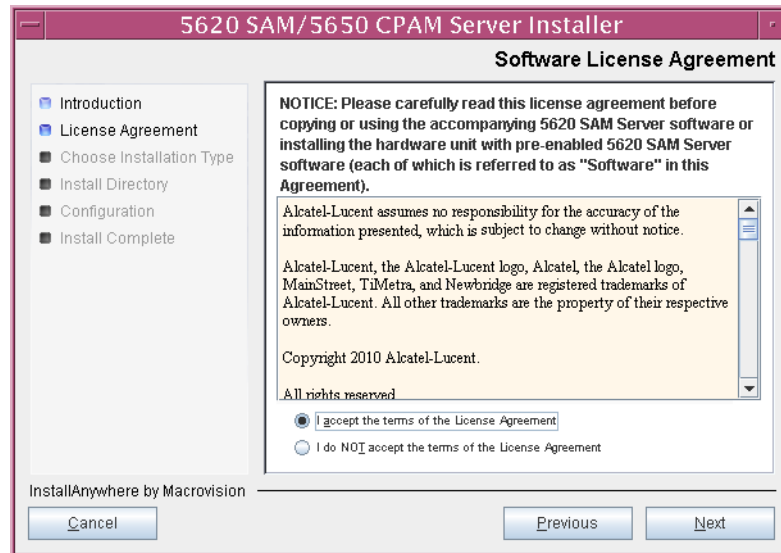
- 41 The 5620 SAM server installer opens, as shown in Figure 5-20. The left pane indicates the conversion progress. The right pane displays release information about the software. Click on the Next button.

Figure 5-20 Introduction



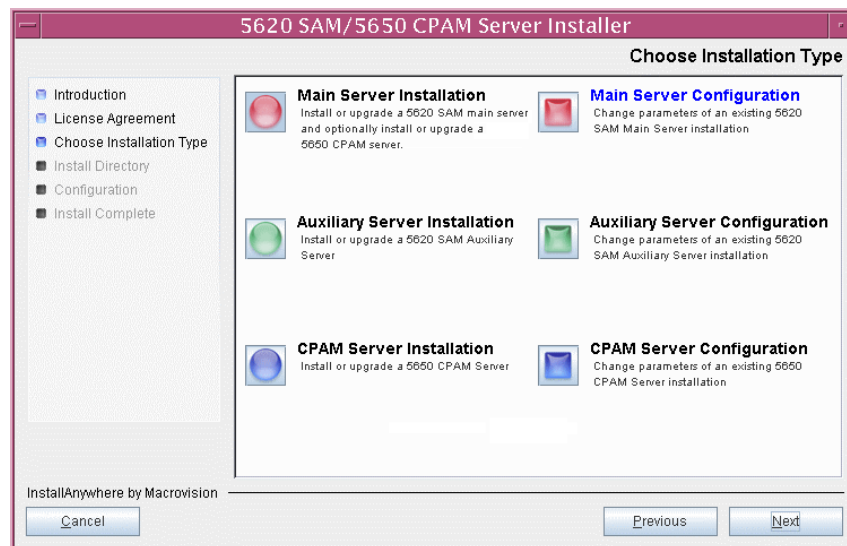
- 42 Review and accept the terms of the license agreement shown in Figure 5-21. Click on the Next button.

Figure 5-21 Software License Agreement



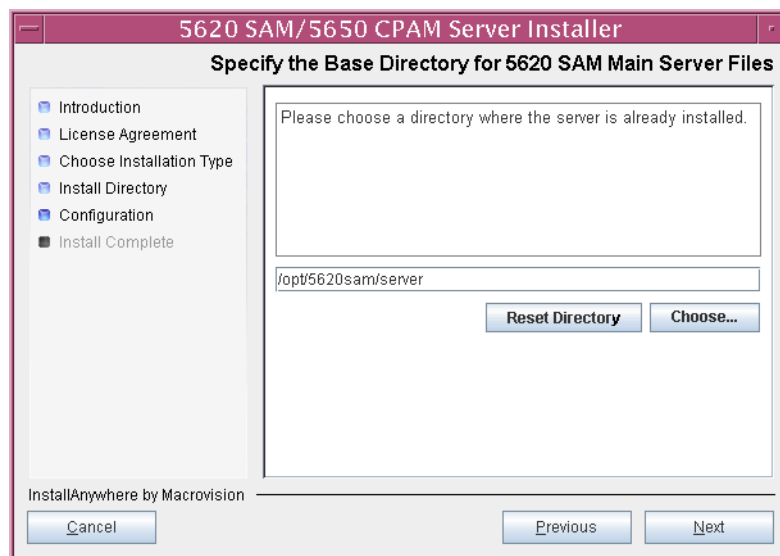
- 43 Select Main Server Configuration, as shown in Figure 5-22. Click on the Next button.

Figure 5-22 Choose Installation Type



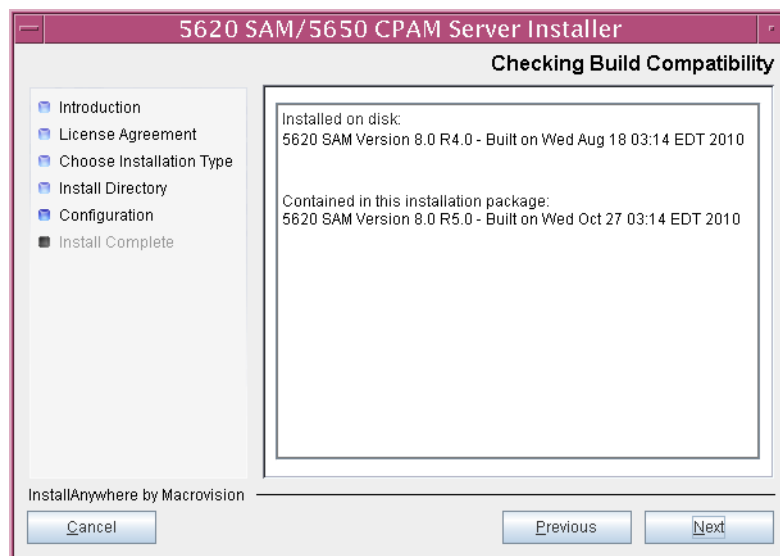
- 44 Specify the base directory in which the existing 5620 SAM main server software is installed (typically /opt/5620sam/server), as shown in Figure 5-23. Click on the Next button.

Figure 5-23 Specify the Base Directory for 5620 SAM Main Server Files



- 45 As shown in Figure 5-24, the installer indicates which release of 5620 SAM software is installed. Verify the information. Click on the Next button.

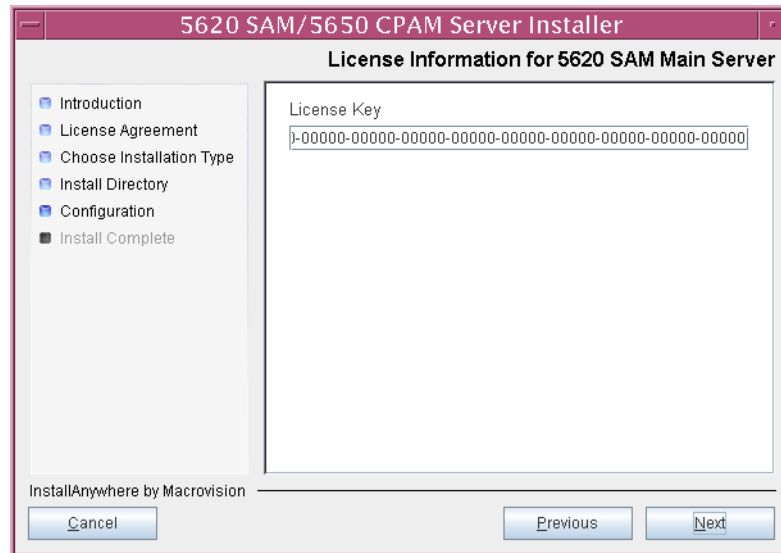
Figure 5-24 Checking Build Compatibility





- 46 Enter the License Key information exactly as received from Alcatel-Lucent. Include the dashes in the key, as shown in Figure 5-25. Click on the Next button.

Figure 5-25 License information for 5620 SAM Main Server



47 Configure the following parameters shown in Figure 5-26, then click on the Next button.

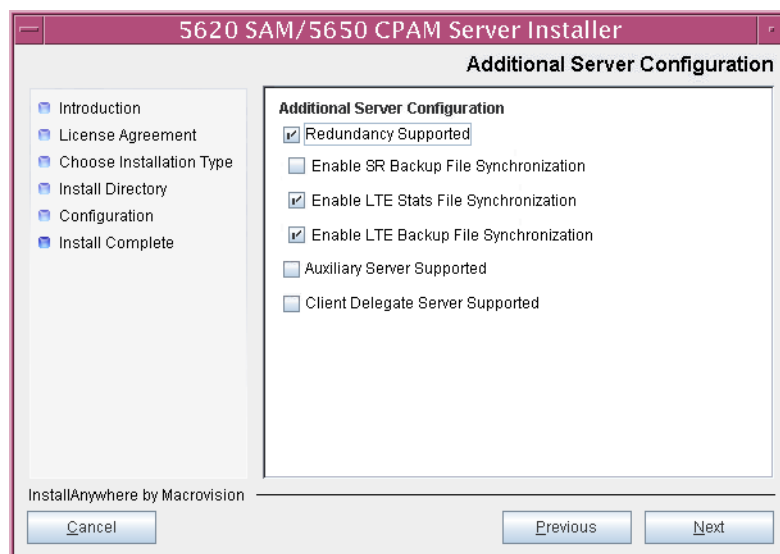
- Redundancy Supported
- Enable SR Backup File Synchronization
- Enable LTE Stats File Synchronization
- Enable LTE Backup File Synchronization
- Auxiliary Server Supported
- Client Delegate Server Supported



**Note 1** — You must select the Redundancy Supported parameter.

**Note 2** — The Enable SR Backup File Synchronization and Enable LTE Backup File Synchronization parameters are displayed only when the Redundancy Supported parameter is enabled.

Figure 5-26 Additional Server Configuration



48 Configure the following parameters, shown in Figure 5-27, using the recorded values from the primary database conversion. Click on the Next button.

- Primary Database IP Address
- Primary Database Server Port (typically 1523)
- Primary Database Instance Name (typically samdb)
- Database User Name (typically samuser)
- Database User Password
- Primary Database Proxy Port (typically 9002)

Figure 5-27 Primary Database Configuration

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window with the 'Primary Database Configuration' tab selected. On the left is a navigation pane with the following items: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (selected), and Install Complete. The main area contains a text box with instructions: 'If NAT (network address translation) is to be used, enter the primary 5620 SAM database's public IP address, as known to the 5620 SAM server.' Below this are six input fields: 'Primary Database Server IP Address' (empty), 'Primary Database Server Port' (1523), 'Primary Database Instance Name' (samdb), 'Database User Name' (samuser), 'Database User Password' (masked with asterisks), and 'Primary Database Proxy Port' (9002). At the bottom, there is a 'Cancel' button on the left and 'Previous' and 'Next' buttons on the right. The footer text reads 'InstallAnywhere by Macrovision'.

49 Depending on the existing configuration, the panel in Figure 5-28 is displayed. Configure the following parameters, if required, then click on the Next button:

- Online Database Backup Interval (hours) (typically 24)
- Online Backup Destination (typically /opt/5620sam/dbbackup)
- Number Of Backup Sets (typically 3)



**Note** — The Online Backup Destination is a path on the file system of the database station specified in step 48.

Figure 5-28 Online Database Backup

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window with the 'Online Database Backup' panel selected. The panel contains a text box with instructions: 'The database backup directory resides on the database workstation. Please ensure that the specified directory exists on the database workstation and it is writable.' Below this are three input fields: 'Online Backup Interval (Hours)' with a value of 24, 'Online Backup Destination' with a value of /opt/5620sam/dbbackup, and 'Number Of Backup Sets' with a value of 3. At the bottom left, it says 'InstallAnywhere by Macrovision' with a 'Cancel' button. At the bottom right, there are 'Previous' and 'Next' buttons.

50 Configure the following parameters shown in Figure 5-29, then click on the Next button:

- Database Server IP Address
- Database Instance Name (typically samdb2)
- Database Proxy Port (typically 9002)
- Enable Database Backup File Synchronization

Figure 5-29 Standby Database Configuration

The screenshot shows the 'Standby Database Configuration' window of the '5620 SAM/5650 CPAM Server Installer'. The window has a purple title bar and a sidebar on the left with a list of steps: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (selected), and Install Complete. The main area contains a text box with instructions about NAT, followed by input fields for 'Database Server IP Address' (highlighted in yellow), 'Database Instance Name' (containing 'samdb2'), and 'Database Proxy Port' (containing '9002'). There is an unchecked checkbox for 'Enable Database Backup File Synchronization'. At the bottom, there are 'Cancel', 'Previous', and 'Next' buttons. The text 'InstallAnywhere by Macrovision' is visible in the bottom left corner.

- 51 The panel in Figure 5-30 is displayed if you select “Auxiliary Server Supported” in step 47. Otherwise, go to step 53.

Perform the following steps to specify an auxiliary server, if required.

- i Configure the following parameters shown in Figure 5-30:
  - NAT (network address translation) Used  
Select this parameter only if NAT is to be used between the 5620 SAM main and auxiliary servers.
  - Private IP (accessible only by this server)  
You must configure this parameter if you select the NAT (network address translation) Used parameter.
  - Public IP (accessible to auxiliary)
  - Server Port (typically 12800)
  - Enable Stats Collection on Auxiliary Servers
  - Enable Call Trace Collection on Auxiliary Servers



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 5-30.

Figure 5-30 Main Server Configuration for Auxiliary Servers

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window. The left sidebar contains a list of steps: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration, and Install Complete. The 'Configuration' step is currently selected. The main panel is titled 'Main Server Configuration for Auxiliary Servers'. It contains a text box with instructions: 'Enter the the network interface information that this 5620 SAM main server requires to communicate with the 5620 SAM auxiliary servers. At least one service type checkbox must be selected.' Below this, there are several configuration options:
 

- ☒ NAT (network address translation) Used
- Private IP (accessible only by this server): 192.168.200.111 (dropdown menu)
- Public IP (accessible to auxiliary): (empty text field)
- Server Port: 12800 (text field)
- ☐ Enable Stats Collection on Auxiliary Servers
- ☒ Enable Call Trace Collection on Auxiliary Servers

 At the bottom, there are 'Cancel', 'Previous', and 'Next' buttons. The footer of the window reads 'InstallAnywhere by Macrovision'.

- ii Click on the Next button.

- iii Click on the Add button shown in Figure 5-31. The form shown in Figure 5-32 opens.

Figure 5-31 Auxiliary Servers

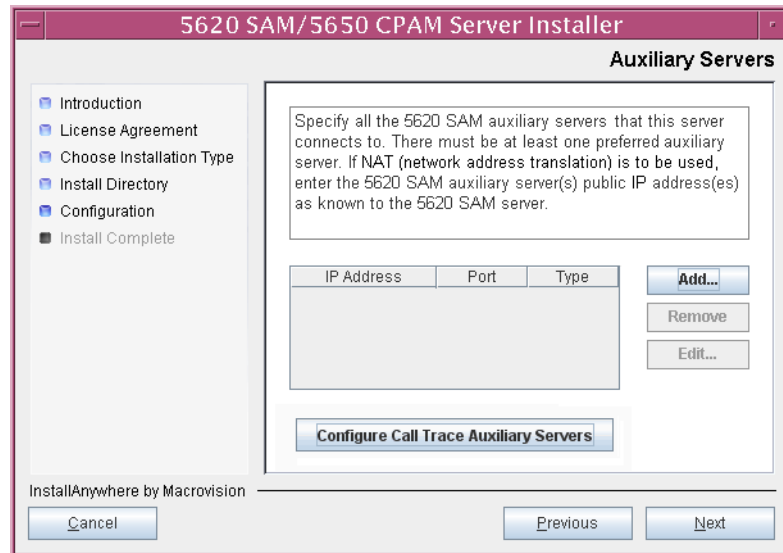
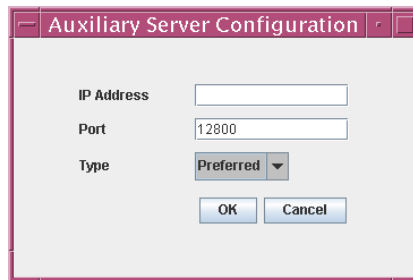


Figure 5-32 Auxiliary Server Configuration



- iv Configure the following parameters shown in Figure 5-32:
- IP Address
  - Port (typically 12800)
  - Type (Preferred or Reserved)
- v Click on the OK button to save the information and close the form.
- vi Repeat steps 51 iii to v to specify an additional auxiliary server, if required.
- vii If "Enable Call Trace Collection on Auxiliary Servers" is selected in step 51 i, click on the "Configure Call Trace Auxiliary Servers" button shown in Figure 5-31. Otherwise, go to step 52.

- viii The form shown in Figure 5-33 opens. Select a preferred auxiliary server in the upper left panel and the associated reserved auxiliary server in the lower left panel, and click on the “Make Pair from Selected” button. The auxiliary servers move to the list on the right side of the form.

Figure 5-33 Configure Call Trace Auxiliary Servers

Select one preferred server and one reserved server from the left side. Add those servers to the right side using the 'Make Pair from Selected' button.

| Preferred Auxiliary Servers |       |
|-----------------------------|-------|
| IP Address                  | Port  |
| 10.1.1.1                    | 12800 |
| 10.1.1.2                    | 12800 |
| 10.1.1.3                    | 12800 |

| Reserved Auxiliary Servers |       |
|----------------------------|-------|
| IP Address                 | Port  |
| 10.2.2.1                   | 12800 |
| 10.2.2.2                   | 12801 |
| 10.2.2.3                   | 12800 |

| Server Pairs        |                    |
|---------------------|--------------------|
| Preferred Server IP | Reserved Server IP |

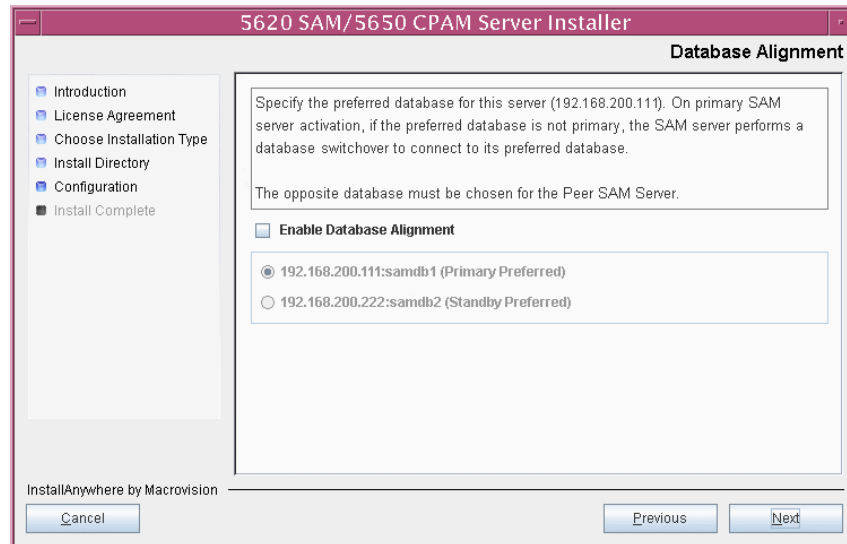
Make Pair from Selected      Remove Selected Pair      OK      Cancel

- ix Repeat step 51 viii to configure another call-trace auxiliary server pair, if required.
- 52 Click on the Next button.



- 53 If you select the Enable Database Alignment parameter shown in Figure 5-34, you must specify the preferred database of this main server. Click on the Next button.

Figure 5-34 Database Alignment



- 54 Perform the following steps.
- i Configure the following parameters shown in Figure 5-35:
    - Server Domain Name (typically 5620sam)  
This is a value that uniquely identifies the 5620 SAM server cluster.
    - Use Hostname for Communication  
Select this parameter if the main server is to use multiple interfaces for GUI and OSS client communication.

Figure 5-35 Main Server Configuration for Clients

**5620 SAM/5650 CPAM Server Installer**

**Main Server Configuration for Clients**

Enter the network interface information that the GUI and OSS clients require to communicate with this 5620 SAM main server.

If multiple addresses are to be used for communication with GUI clients, OSS clients, and auxiliary servers, a hostname must be provided for the Public Hostname field.

Server Domain Name

☐ Use Hostname for Communication (recommended if NAT is used)

☒ NAT (network address translation) Used

Private IP (accessible only by this server)

Public IP (accessible to clients)

EJB JNDI Server port

EJB JMS Server port

☐ Enable 5670 RAM

☐ Enable 3GPP OSS Interface

InstallAnywhere by Macrovision

- ii If you select Use Hostname for Communication, go to step 54 vi.
- iii Configure the following parameters:
  - NAT (network address translation) Used
  - Private IP (accessible only by this server)
  - Public IP (accessible to clients)
  - EJB JNDI Server port (typically 1099)
  - EJB JMS Server port (typically 8093)
  - Enable 5670 RAM
  - Enable 3GPP OSS Interface



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 5-35.

- iv Click on the Next button.

- v Go to step 56.
- vi Configure the following parameters shown in Figure 5-36:
  - NAT (network address translation) Used
  - Private IP (accessible only by this server)
  - Public Hostname
  - EJB JNDI Server port (typically 1099)
  - EJB JMS Server port (typically 8093)
  - Enable 5670 RAM
  - Enable 3GPP OSS Interface



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 5-36.

Figure 5-36 Main Server Configuration for Clients

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window. The title bar is purple with the text '5620 SAM/5650 CPAM Server Installer'. The main window has a purple header bar with the text 'Main Server Configuration for Clients'. On the left side, there is a vertical list of steps: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration, and Install Complete. The 'Configuration' step is currently selected. The main area of the window contains the following configuration options:

- A text box for 'Server Domain Name' with the value '5620sam'.
- A checked checkbox for 'Use Hostname for Communication (recommended if NAT is used)'.
- A checked checkbox for 'NAT (network address translation) Used'.
- A text box for 'Private IP (accessible only by this server)' with the value '192.168.200.111' and a dropdown arrow.
- A text box for 'Public Hostname'.
- A text box for 'EJB JNDI Server port' with the value '1099'.
- A text box for 'EJB JMS Server port' with the value '8093'.
- An unchecked checkbox for 'Enable 5670 RAM'.
- An unchecked checkbox for 'Enable 3GPP OSS Interface'.

At the bottom left, it says 'InstallAnywhere by Macrovision'. At the bottom right, there are three buttons: 'Cancel', 'Previous', and 'Next'.

- vii Click on the Next button.

55 Configure the following parameters shown in Figure 5-37, then click on the Next button:

- RMI Port (typically 1098)
- RMI Object Port (typically 4444)

Figure 5-37 Main Server Configuration for Clients (cont.)

5620 SAM/5650 CPAM Server Installer

Main Server Configuration for Clients (cont.)

Introduction  
License Agreement  
Choose Installation Type  
Install Directory  
Configuration  
Install Complete

RMI Port 1098

RMI Object Port 4444

InstallAnywhere by Macrovision

Cancel Previous Next

56 Configure the following parameters shown in Figure 5-38:

- NAT (network address translation) Used  
Select this parameter only if NAT is to be used between this 5620 SAM server and the peer 5620 SAM server.
- Private IP (accessible only by this server)
- Public IP (accessible to peer server)
- High Available JNDI Port (typically 1100)
- TCP Port Cluster Number (typically 11800)



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 5-38.

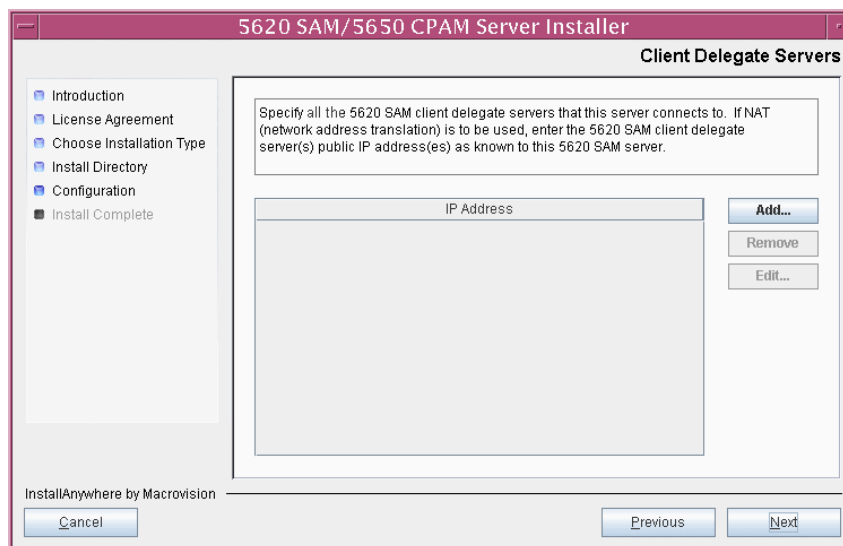
Figure 5-38 Main Server Configuration for Peer Server

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window. The title bar reads '5620 SAM/5650 CPAM Server Installer'. The main window title is 'Main Server Configuration for Peer Server'. On the left is a navigation pane with the following items: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (selected), and Install Complete. The main area contains a text box with the instruction: 'Enter the network interface information that this 5620 SAM main server requires to communicate with the peer server.' Below this are several configuration options: a checked checkbox for 'NAT (network address translation) Used', a 'Private IP (accessible only by this server)' dropdown menu showing '192.168.200.222', a 'Public IP (accessible to peer server)' text box (highlighted in yellow), a 'High Available JNDI Port' text box with '1100', and a 'TCP Port Cluster Number' text box with '11800'. At the bottom left is the text 'InstallAnywhere by Macrovision' and a 'Cancel' button. At the bottom right are 'Previous' and 'Next' buttons.

- 57 The panel in Figure 5-39 is displayed if you select “Client Delegate Server Supported” in step 47. Otherwise, go to step 58.

Click on the Add button to specify the client delegate server IP addresses, as required. If NAT is used between the 5620 SAM server and client delegate servers, specify the public IP address. Click on the Next button.

Figure 5-39 Client Delegate Servers



58 Perform one of the following to specify where the 5620 SAM user documentation is to be stored.

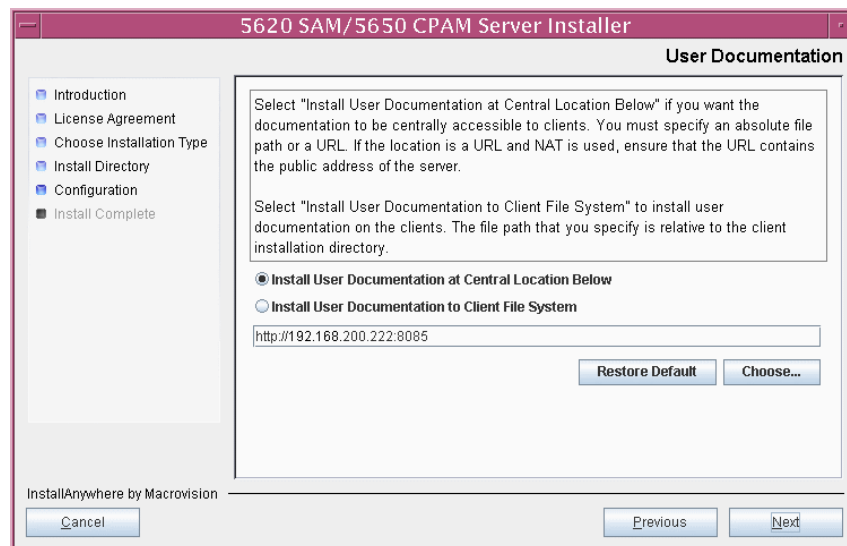
- a To store the documentation in a central location that is available to all clients, perform the following steps.
  - i Select the “Install User Documentation at Central Location Below” parameter, as shown in Figure 5-40.
  - ii To accept the default user documentation location that is displayed, go to step 59.



**Note —** If NAT is used between the 5620 SAM server and clients, you must update the default location using the public IP address of the server, or the documentation is not accessible to clients.

- iii Specify a location for the 5620 SAM user documentation in the field below the parameters.
- iv Copy the contents of the User\_Documentation directory on the 5620 SAM software DVD-ROM to the location specified in step iii.
- v Click on the Next button. A dialog box appears.
- vi Click on the OK button.

Figure 5-40 User Documentation



- b To store a copy of the documentation on the client file system, perform the following steps.

- i Select the “Install User Documentation to Client File System” parameter shown in Figure 5-40.
- ii Specify a file path relative to the 5620 SAM client installation directory. The path must not contain a leading slash.

For example, if the installation directory is /opt/5620sam/client and you specify Documents as the location, the documentation is installed in the following directory:

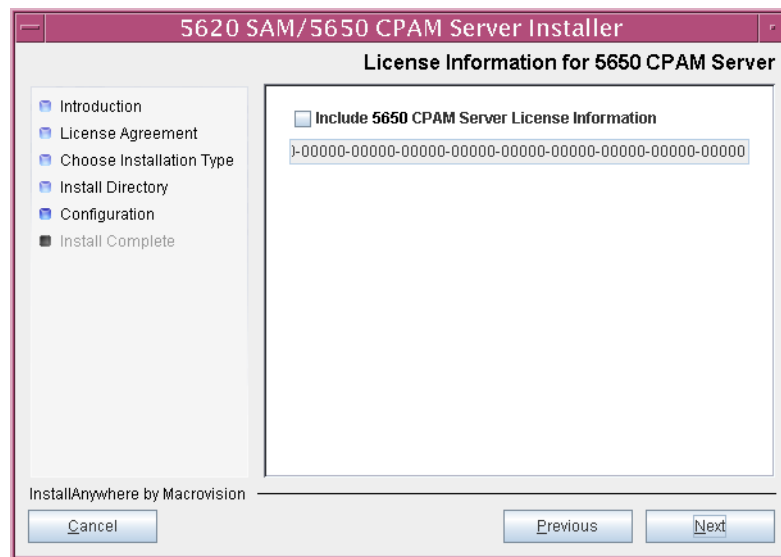
/opt/5620sam/client/Documents



**Note** — The 5620 SAM client uninstaller cannot remove the documentation unless it is installed below the nms directory in the 5620 SAM client installation directory, for example, /opt/5620sam/client/nms/Documents.

- 59 Click on the Next button.
- 60 Specify whether the 5620 SAM configuration includes a 5650 CPAM server, as shown in Figure 5-41. If it does, enter the 5650 CPAM license key provided by Alcatel-Lucent. Include the dashes in the key. Click on the Next button.

Figure 5-41 License Information for 5650 CPAM Server





61 Configure the following parameters shown in Figure 5-42, then click on the Next button:

- NAT (network address translation) Used  
Select this parameter only if NAT is to be used between the 5620 SAM main server and the managed network.
- SNMP Trap Receiving IPv4 Address
- SNMP Trap Receiving IPv6 Address
- SNMP Trap Receiving Port (typically 162)
- Trap Log Id (typically 98)

Figure 5-42 SNMP Configuration

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window with the 'SNMP Configuration' tab selected. On the left is a navigation pane with links: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration, and Install Complete. The main area contains a text box with instructions: 'If NAT (network address translation) is to be used, enter the 5620 SAM main server's public IP address as known to the devices within the managed network.' Below this are two unchecked checkboxes: 'NAT (network address translation) Used' and 'IPv6 Address Used'. There are four input fields: 'SNMP Trap Receiving IPv4 Address' (containing '192.168.200.122'), 'SNMP Trap Receiving IPv6 Address' (empty), 'SNMP Trap Receiving Port' (containing '162'), and 'Trap Log Id' (containing '98'). At the bottom left is the text 'InstallAnywhere by Macrovision' and a 'Cancel' button. At the bottom right are 'Previous' and 'Next' buttons.

62 Configure the following parameters shown in Figure 5-43, then click on the Next button:

- Peer Server IP Address
- Peer Server Trap Log Id (typically 98)
- Peer Server SNMP Trap Receiving IPv4 Address
- Peer Server SNMP Trap Receiving IPv6 Address
- Peer Server SNMP Trap Receiving Port (typically 162)
- Peer Server TCP Port Cluster Number (typically 11800)

Figure 5-43 Peer Main Server Configurations

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window. The title bar is purple with the text '5620 SAM/5650 CPAM Server Installer'. Below the title bar, the window is divided into two main sections. On the left is a navigation pane with a list of steps: 'Introduction', 'License Agreement', 'Choose Installation Type', 'Install Directory', 'Configuration' (which is highlighted with a blue square), and 'Install Complete' (which has a small square icon next to it). On the right is the main configuration area titled 'Peer Main Server Configurations'. It contains a text box with instructions: 'If NAT (network address translation) is to be used, enter the 5620 SAM peer server's public IP address as known to the 5620 SAM server. Also enter the 5620 SAM peer server's public IP address as known to the devices within the managed network.' Below this text box are six input fields: 'Peer Server IP Address' (empty), 'Peer Server Trap Log Id' (containing '98'), 'Peer Server SNMP Trap Receiving IPv4 Address' (empty), 'Peer Server SNMP Trap Receiving IPv6 Address' (empty), 'Peer Server SNMP Trap Receiving Port' (containing '162'), and 'Peer Server TCP Port Cluster Number' (containing '11800'). At the bottom of the window, there is a status bar that says 'InstallAnywhere by Macrovision'. Below the status bar are three buttons: 'Cancel', 'Previous', and 'Next'.

63 If you selected the Use Hostname for Communication parameter in step 54, go to step 65.

- 64 Configure the following parameters shown in Figure 5-44, then click on the Next button:
- 5620 SAM Peer Server IP Address
  - 5620 SAM JNDI High Available Peer Server Port (typically 1100)
  - 5620 SAM JNDI Peer Server Port (typically 1099)

Figure 5-44 Peer Main Server Configurations (cont.)

**5620 SAM/5650 CPAM Server Installer**

**Peer Main Server Configurations (cont.)**

Enter the IP address of the network interface the GUI and OSS clients require to communicate with the peer server. If NAT (network address translation) is to be used, specify the public IP address as known to the 5620 SAM clients.

If multiple addresses are to be used for communication with GUI clients, OSS clients, and auxiliary servers, a hostname must be provided for the 5620 SAM Peer Server Hostname field.

5620 SAM Peer Server IP Address

5620 SAM JNDI High Available Peer Server Port

5620 SAM JNDI Peer Server Port

InstallAnywhere by Macrovision

- 65 Configure the following parameters shown in Figure 5-45, then click on the Next button:
- 5620 SAM Peer Server Hostname
  - 5620 SAM JNDI High Available Peer Server Port (typically 1100)
  - 5620 SAM JNDI Peer Server Port (typically 1099)

Figure 5-45 Peer Main Server Configurations (cont.)

**5620 SAM/5650 CPAM Server Installer**

**Peer Main Server Configurations (cont.)**

Enter the IP address of the network interface the GUI and OSS clients require to communicate with the peer server. If NAT (network address translation) is to be used, specify the public IP address as known to the 5620 SAM clients.

If multiple addresses are to be used for communication with GUI clients, OSS clients, and auxiliary servers, a hostname must be provided for the 5620 SAM Peer Server Hostname field.

5620 SAM Peer Server Hostname

5620 SAM JNDI High Available Peer Server Port

5620 SAM JNDI Peer Server Port

InstallAnywhere by Macrovision

- 66 If you require 5620 SAM client navigation from a 5620 NM system, select the "Enable Navigation from External Systems" parameter shown in Figure 5-46 and specify the TCP port that the client is to use for accepting navigation requests. Click on the Next button.

Figure 5-46 Navigation from External Systems

**5620 SAM/5650 CPAM Server Installer**

**Navigation from External Systems**

Select this option to enable GUI navigation from a 5620 NM system.

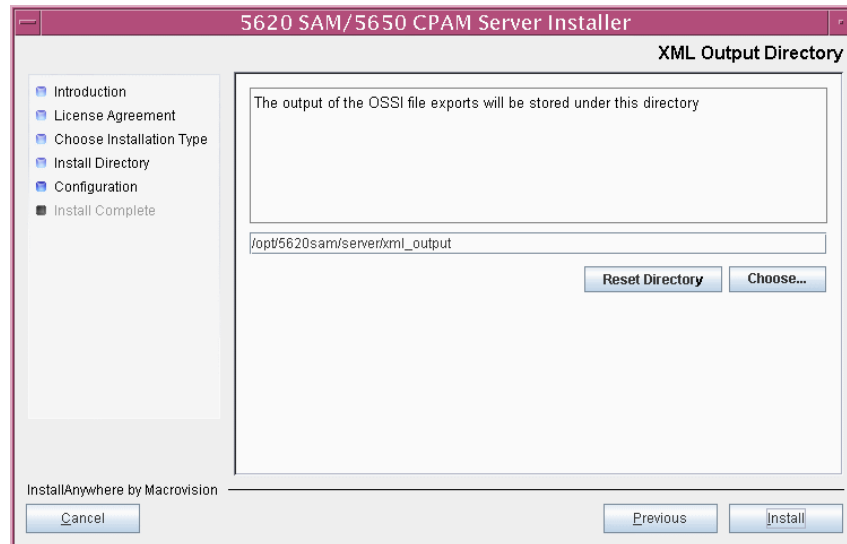
☒ **Enable Navigation from External Systems**

TCP port for accepting GUI navigation requests

InstallAnywhere by Macrovision

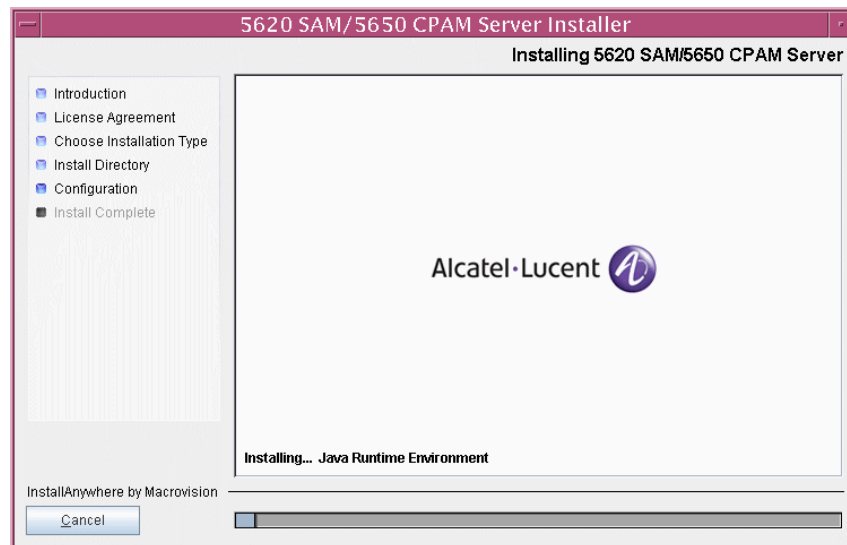
- 67 Specify an OSS XML output location (typically /opt/5620sam/server/xml\_output), as shown in Figure 5-47. Click on the Install button to begin the server conversion.

Figure 5-47 XML Output Directory



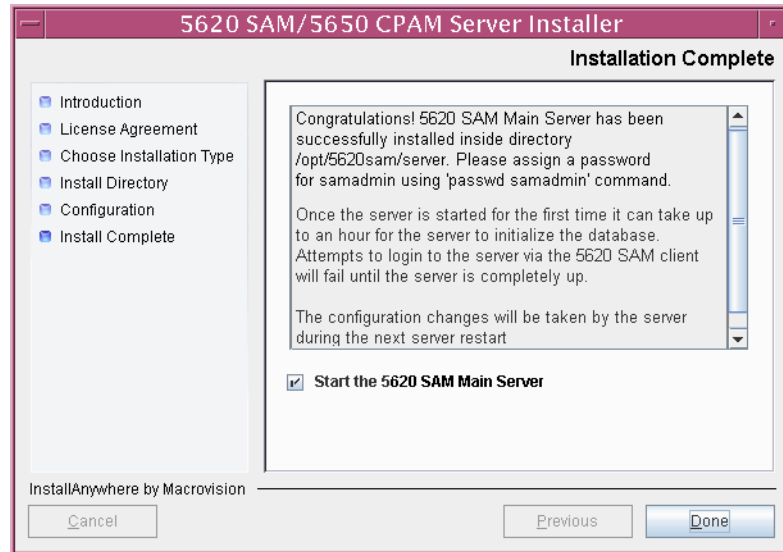
The next panel displays conversion progress, as shown in Figure 5-48.

Figure 5-48 Installing 5620 SAM/5650 CPAM Server



- 68 When the server conversion is complete, select the “Start the 5620 SAM Main Server” parameter, as shown in Figure 5-49, to specify that the server is to start immediately after the conversion.

Figure 5-49 Installation Complete



- 69 Click on the Done button to close the server installer. The server starts. Initial server startup can take twenty minutes or more.
- 70 Perform the following steps to verify that the primary 5620 SAM main server is started.

- i Enter the following at the CLI prompt to switch to the samadmin user:

```
su - samadmin ↵
```

- ii Enter the following at the CLI prompt to change to the server binary directory:

```
bash$ cd path/nms/bin ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

- iii Enter the following at the CLI prompt:

```
bash$ path/nms/bin/nmsserver.bash -s nms_status ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

The command returns server status information.

If the new primary main server is not completely started, the first line of status information is the following:

```
Main Server is not ready...
```

The new primary 5620 SAM server is completely started when the command returns the following line of output:

```
-- Primary server is UP
```

- iv If the command output indicates that the server is not completely started, wait five minutes and enter the command again to check the output.

The next section of the procedure describes the enabling of the 5620 SAM server startup daemon that is currently disabled.

### Enable server daemon

- 71 Enable the 5620 SAM server startup daemon.

- i Enter the following at the CLI prompt to switch to the root user:

```
bash$ su - ↵
```

- ii Enter the following at the CLI prompt to change to the /etc/rc3.d directory:

```
cd /etc/rc3.d ↵
```

- iii Enter the following at the CLI prompt to disable the 5620 SAM server daemon by renaming it:

```
mv inactive.S975620SAMServerWrapper
S975620SAMServerWrapper ↵
```

The next section of the procedure describes the configuration steps required to prepare the new standby database station for the 5620 SAM software.

### Prepare new standby database station for standby database installation

- 72 Before you perform a 5620 SAM database installation on Solaris, you must run a pre-installation script. This script creates and configures the UNIX account for the Oracle management user and adds configuration information to the /etc/system file.

Log in to the station that is to be the standby database station as a user with root or root-equivalent privileges.



**Caution** — Ensure that you run only the pre-installation script that is on the new 5620 SAM software DVD-ROM. Using a different version of the script may cause the database installation to fail.

- 73 Open a console window.
- 74 Place the 5620 SAM software DVD-ROM in a DVD-ROM drive.
- 75 Navigate to the DVD-ROM drive.

- 76 Perform one of the following to change to the appropriate Solaris directory on the 5620 SAM software DVD-ROM.

a On a Sun SPARC station, enter the following at the CLI prompt:

```
cd Solaris ↵
```

b On a Sun X86-based station, enter the following at the CLI prompt:

```
cd Solarisx86 ↵
```

- 77 Enter the following at the CLI prompt:

```
./Oracle10g_PreInstall.sh ↵
```

The following prompt is displayed:

Please select between the following option:

1) NEW INSTALL OF 5620 SAM

2) UPGRADE OF 5620 SAM

- 78 Enter 1 ↵.

- 79 The script prompts you for the following Oracle management user information:

- the user group name (default is dba)
- the user name (default is oracle)
- the home directory (default is /opt/5620sam/oracle10r2)
- a password, if one of the following is true:
  - there is no password
  - there is a password, but you specify that you want to change it

Provide the information. The script updates the system configuration.



**Note 1** — To reduce the complexity of subsequent software upgrades and technical support activities, Alcatel-Lucent recommends that you press ↵ to accept the default value for each parameter.

**Note 2** — If you specify a value other than the default, you must record the value for use when the Oracle10g\_PreInstall.sh script is run during a software upgrade, or when the Oracle management user information is required by Alcatel-Lucent technical support.

**Note 3** — If you receive a “failed to create group” message, ensure that NIS is disabled and re-run the pre-installation script. Contact Alcatel-Lucent technical support for more information.

- 80 When the script execution is complete, enter the following at the CLI prompt to reboot the new standby database station:

```
shutdown -y -i6 -g0 ↵
```

The standby database station reboots.



- 81 Before you perform a 5620 SAM database installation on Solaris, the Oracle management user and group created by the pre-installation script require ownership of the directory that is to hold the database.

After the new standby database station reboots, log in to the new standby database station as a user with root or root-equivalent privileges.

- 82 Open a console window on the new standby database station.
- 83 Enter the following at the CLI prompt to change the current directory to /opt:

```
cd /opt ↵
```

- 84 Enter the following at the CLI prompt to specify the required user and group ownership of the 5620sam directory and subdirectories:

```
chown -R user:group 5620sam ↵
```

where

*user* is the username from step 79, typically oracle

*group\_name* is the group name from step 79, typically dba

- 85 Enter the following at the CLI prompt to change to the 5620sam directory below /opt:

```
cd 5620sam ↵
```

- 86 Enter the following at the CLI prompt to confirm that the Oracle management user home directory has the correct user and group ownerships:

```
ls -l ↵
```

If the command output is not as shown below, repeat steps 81 to 86. Do not proceed unless the output is as shown.

```
drwx----- 2 user group 512 Apr 11 11:15 directory
```

where

*user* is the username specified in step 79, typically oracle

*group* is the group name specified in step 79, typically dba

*directory* is the Oracle management user home directory name specified in step 79, typically /opt/5620sam/oracle10r2

The next section of the procedure describes the installation of the standby 5620 SAM database. The standby database must be installed on a station other than the one on which the primary database is installed.

### Install standby database

- 87 Enter the following at the CLI prompt to switch to the Oracle management user created by the pre-installation script:

```
su - Oracle_management_user_name ↵
```

where *Oracle\_management\_user\_name* is the name of the UNIX account with Oracle management privileges, typically oracle

- 88 Navigate to the DVD-ROM drive that contains the 5620 SAM software DVD-ROM.

89 Perform one of the following to open the 5620 SAM database installer.

a On a Sun SPARC station:

i Enter the following at the CLI prompt:

```
bash$ cd Solaris ↵
```

ii Enter the following at the CLI prompt:

```
bash$./DBConfig_SAM_8_0_revision.bin ↵
```

where

*revision* is the revision identifier, such as R1, R3, or another descriptor

b On a Sun X86-based station:

i Enter the following at the CLI prompt:

```
bash$ cd Solarisx86 ↵
```

ii Enter the following at the CLI prompt:

```
bash$./DBConfig_x86_SAM_8_0_revision.bin ↵
```

where

*revision* is the revision identifier, such as R1, R3, or another descriptor

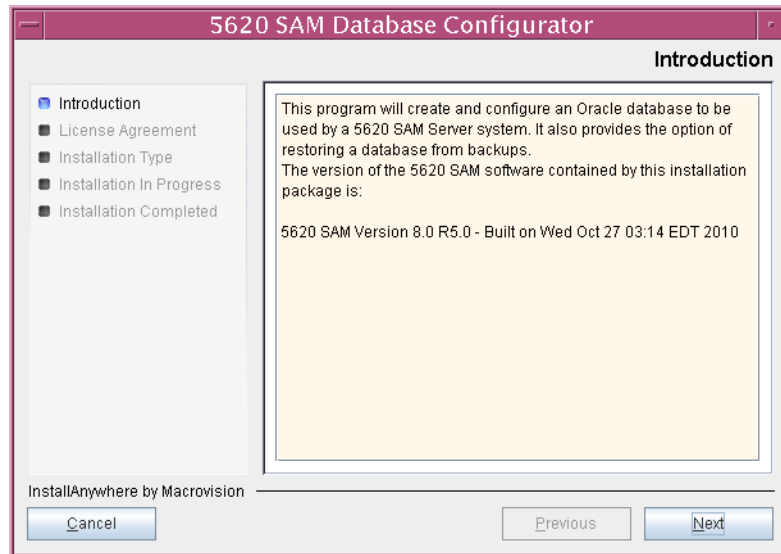
The splash screen shown in Figure 5-50 opens.

Figure 5-50 5620 SAM installer



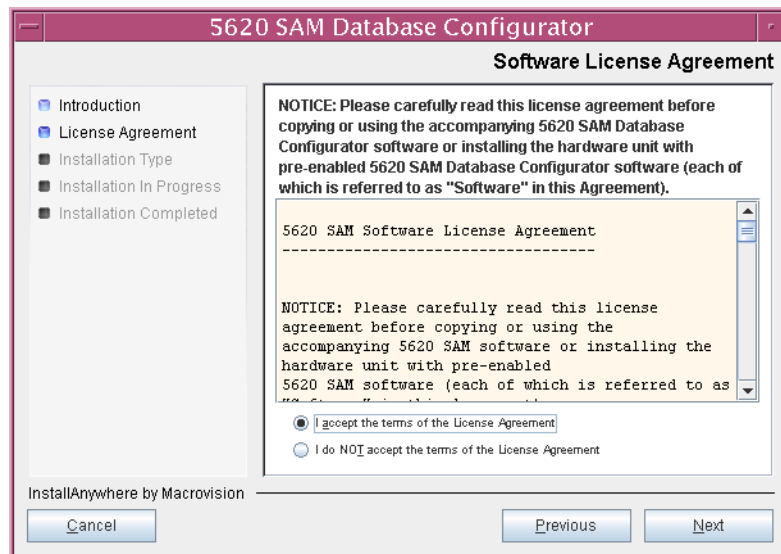
- 90 The 5620 SAM database installer opens, as shown in Figure 5-51. The left pane indicates installation progress. The right pane displays release information about the software. Click on the Next button.

Figure 5-51 Introduction



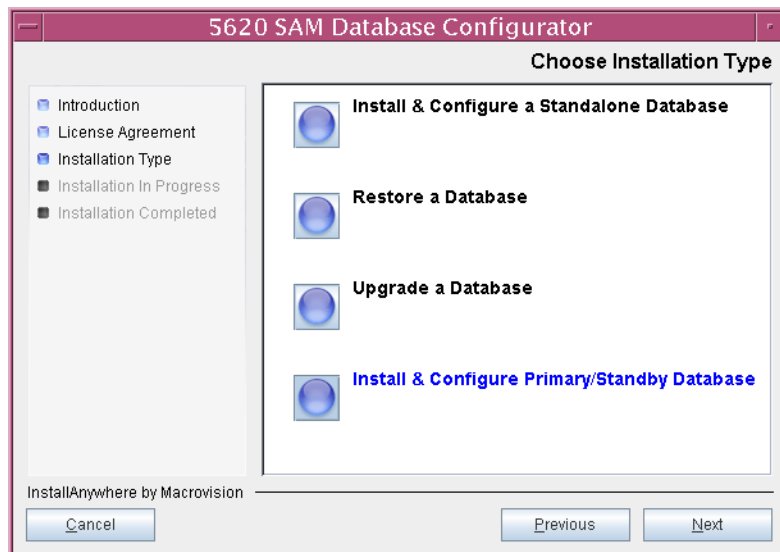
- 91 Review and accept the terms of the license agreement shown in Figure 5-52. Click on the Next button.

Figure 5-52 Software License Agreement



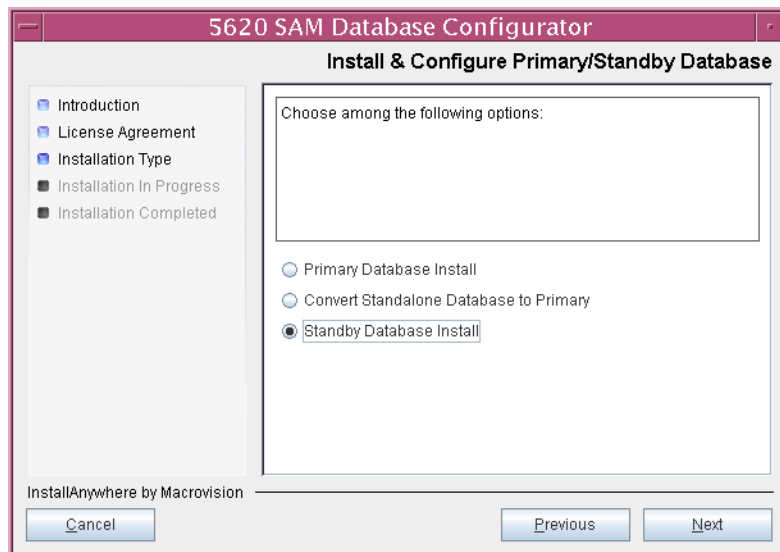
- 92 Select Install & Configure Primary/Standby Database, as shown in Figure 5-53. Click on the Next button.

Figure 5-53 Choose Installation Type



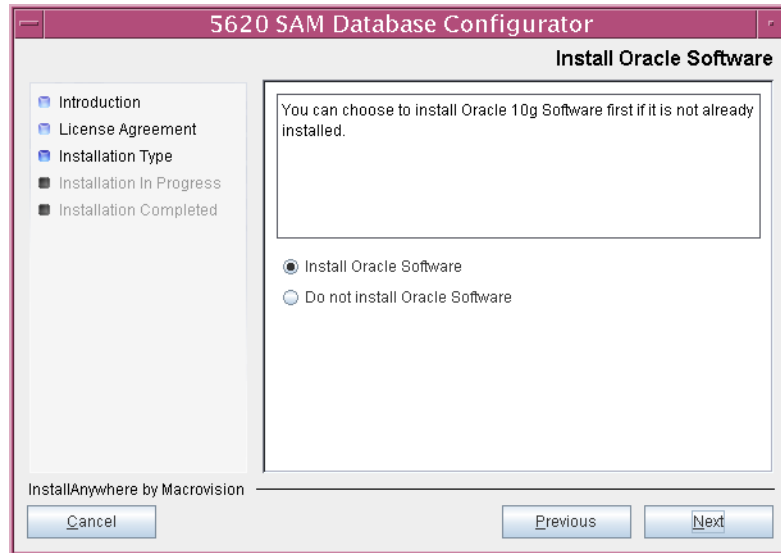
- 93 Select Standby Database Install, as shown in Figure 5-54. Click on the Next button.

Figure 5-54 Install & Configure Primary/Standby Database



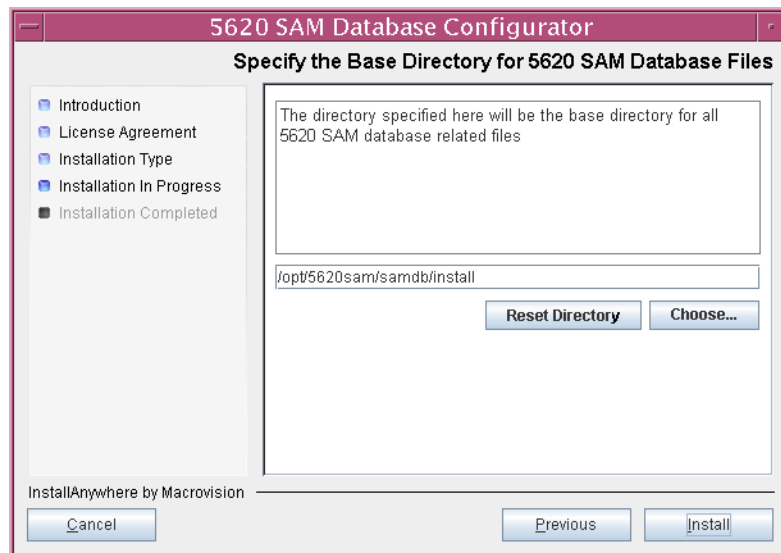
- 94 Select Install Oracle Software, as shown in Figure 5-55. Click on the Next button.

Figure 5-55 Install Oracle Software



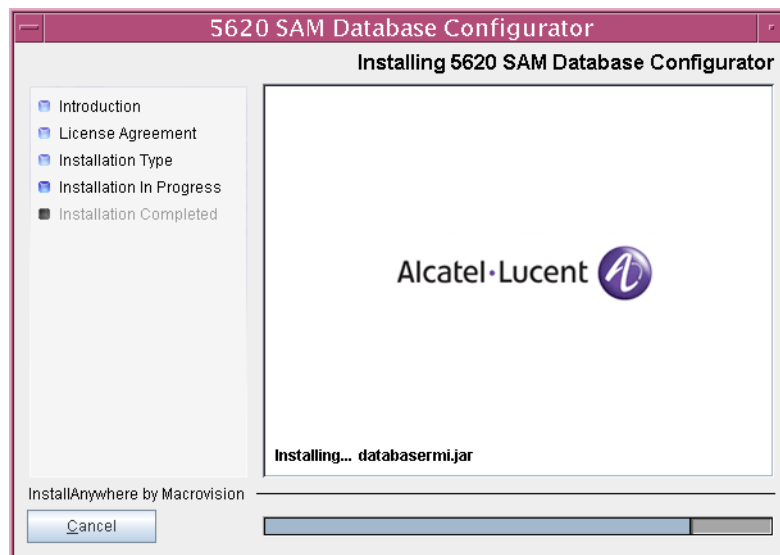
- 95 Specify a base directory in which to install the standby 5620 SAM database software (typically /opt/5620sam/samdb/install), as shown in Figure 5-56. Click on the Install button to begin database software installation.

Figure 5-56 Specify the Base Directory for 5620 SAM Database Files



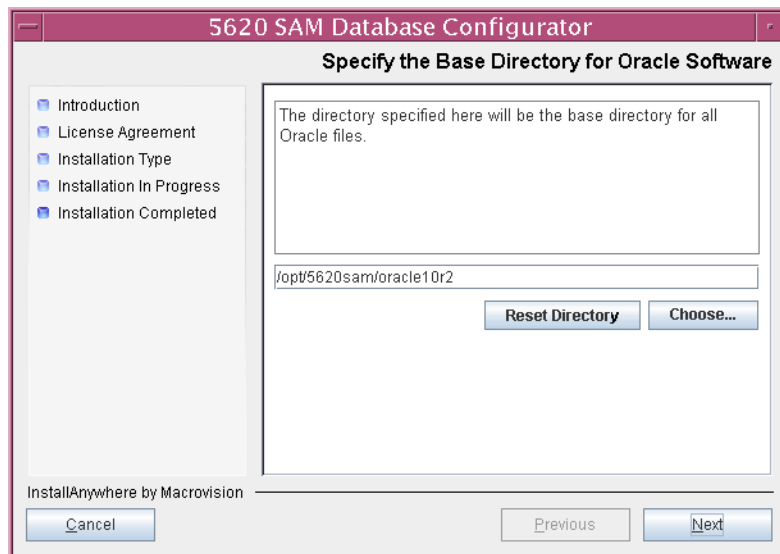
The installer prepares to install the database, as shown in Figure 5-57.

Figure 5-57 Installing 5620 SAM Database Configurator



- 96 Specify a base directory in which to install the Oracle software (typically /opt/5620sam/oracle10r2), as shown in Figure 5-58. Click on the Next button.

Figure 5-58 Specify the Base Directory for Oracle Software



97 Perform the following steps if the panel in Figure 5-59 is displayed.

- i Open a separate console window.
- ii Enter the following at the CLI prompt to switch to the root user:
- iii Enter the following at the CLI prompt to run the Oracle pre-install script:

```
su -
```

```
path/install/config/orainstRoot.sh
```

where *path* is the 5620 SAM database installation location, typically /opt/5620sam/samdb

The script generates messages like the following:

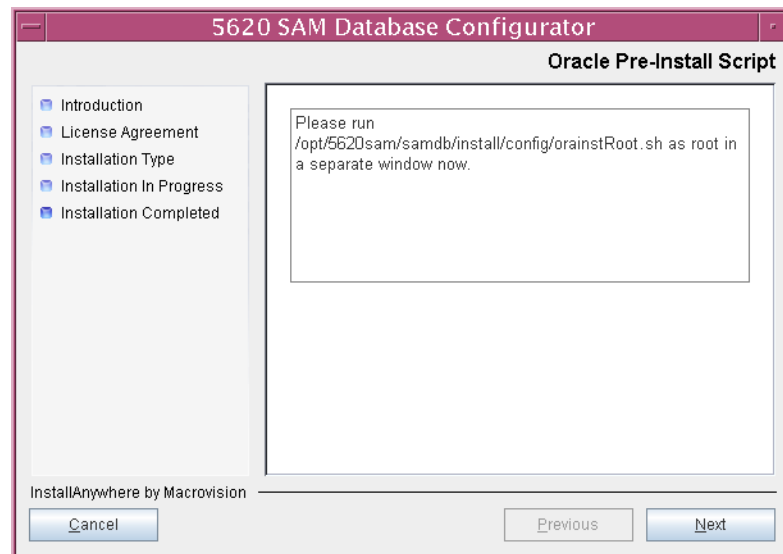
```
Creating the Oracle inventory pointer file
(/var/opt/oracle/oraInst.loc)
```

```
Creating the Oracle inventory directory
(/opt/5620sam/oracle10r2/oraInventory)
```

```
Changing groupname of /opt/5620sam/oracle10r2/oraInventory to
(dba).
```

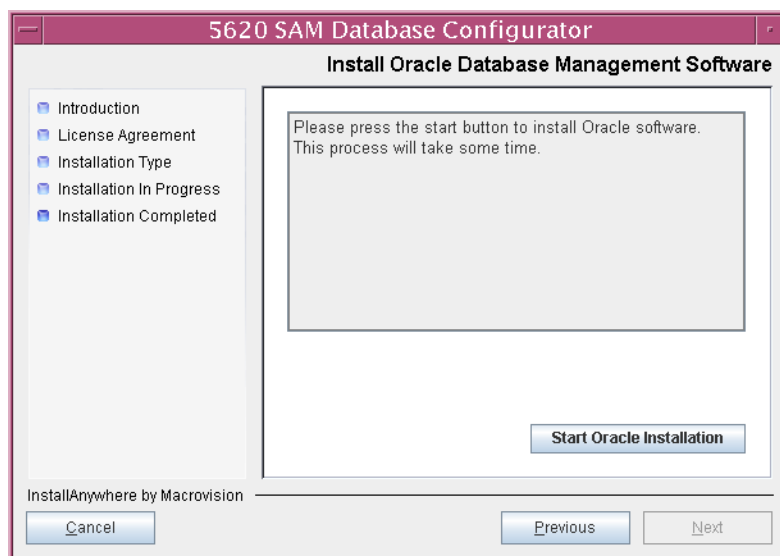
- iv When the script execution is complete, close the console window.
- v Click on the Next button.

Figure 5-59 Oracle Pre-Install Script



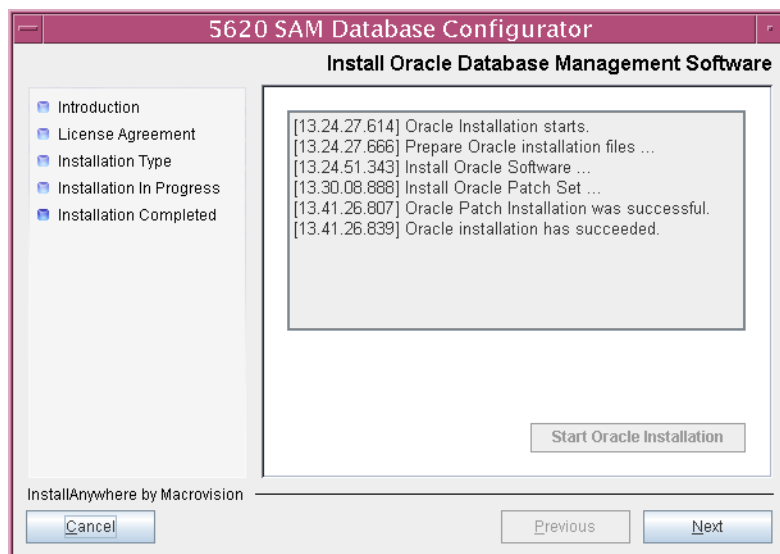
- 98 You are prompted to install Oracle software, as shown in Figure 5-60. This operation can take one hour or more. Click on the Start Oracle Installation button to begin the Oracle software installation.

Figure 5-60 Install Oracle Database Management Software



- 99 As shown in Figure 5-61, Oracle installation details are displayed as the installation progresses. When the installation is complete, Click on the Next button.

Figure 5-61 Install Oracle Database Management Software





100 Perform the following steps when the panel in Figure 5-62 is displayed.

- i Open a separate console window.
- ii Enter the following at the CLI prompt to switch to the root user:
- iii Enter the following at the CLI prompt to run the Oracle post-install script:

```
su - ↵
```

```
path/install/config/orapostinstRoot.sh ↵
```

where *path* is the 5620 SAM database installation location, typically /opt/5620sam/samdb

The script generates messages like the following.

The following environment variables are set as:

```
ORACLE_OWNER= oracle
```

```
ORACLE_HOME=
```

```
/opt/5620sam/oracle10r2
```

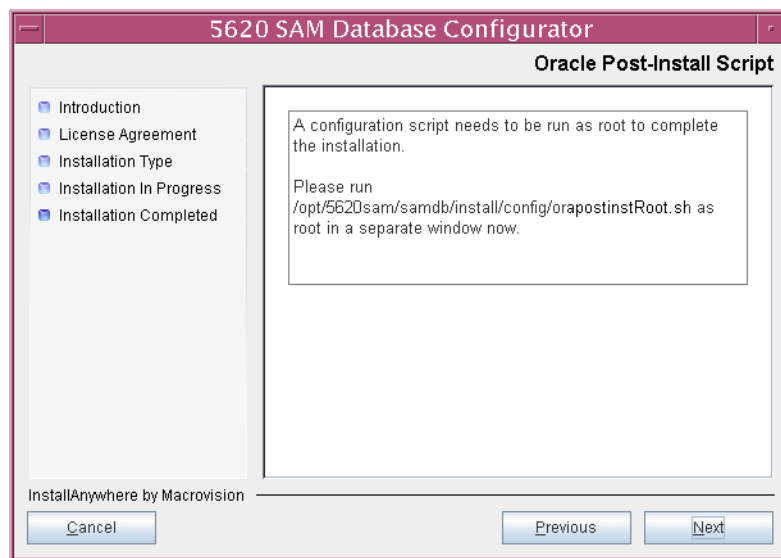
- iv The following prompt is displayed.

```
Enter the full pathname of the local bin directory:
[/usr/local/bin]:
```

Respond to the prompt. The default value is typically acceptable.

- v If you are prompted to overwrite an existing file, press ↵ to overwrite it.
- vi When the script execution is complete, close the console window.
- vii Click on the Next button.

Figure 5-62 Oracle Post-Install Script



101 Configure the parameters shown in Figure 5-63, then click on the Next button.

- NAT (network address translation) Used
- Public IP (accessible to servers)
- Private IP
- Database Proxy Port (typically 9002)



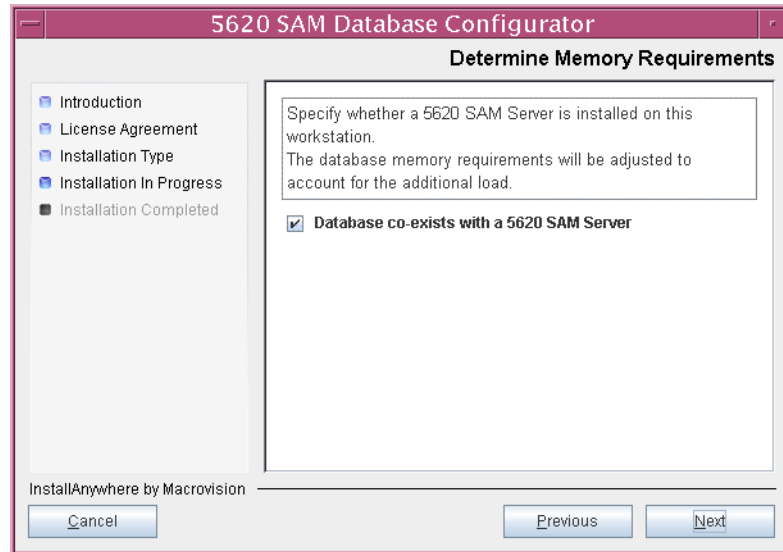
**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected.

Figure 5-63 Standby Database Configuration Info

The screenshot shows the '5620 SAM Database Configurator' window with the 'Standby Database Configuration Info' tab selected. On the left is a navigation pane with five items: 'Introduction' (selected), 'License Agreement', 'Installation Type', 'Installation In Progress', and 'Installation Completed'. The main area contains a text box with instructions: 'Enter the IP address of the network interface the standby database will use to communicate with the server(s). If NAT (network address translation) is to be used, specify both the standby database's private and public IP addresses.' Below this is a checkbox labeled 'NAT (network address translation) Used' which is checked. Underneath the checkbox are two input fields: 'Public IP (accessible to servers)' with the value '192.168.200.233' and 'Database Proxy Port' with the value '9002'. At the bottom of the window are three buttons: 'Cancel', 'Previous', and 'Next'. The text 'InstallAnywhere by Macrovision' is visible in the bottom left corner of the window frame.

- 102 If the 5620 SAM server and database are installed on the same station, select the “Database co-exists with a 5620 SAM Server” parameter shown in Figure 5-64. Click on the Next button.

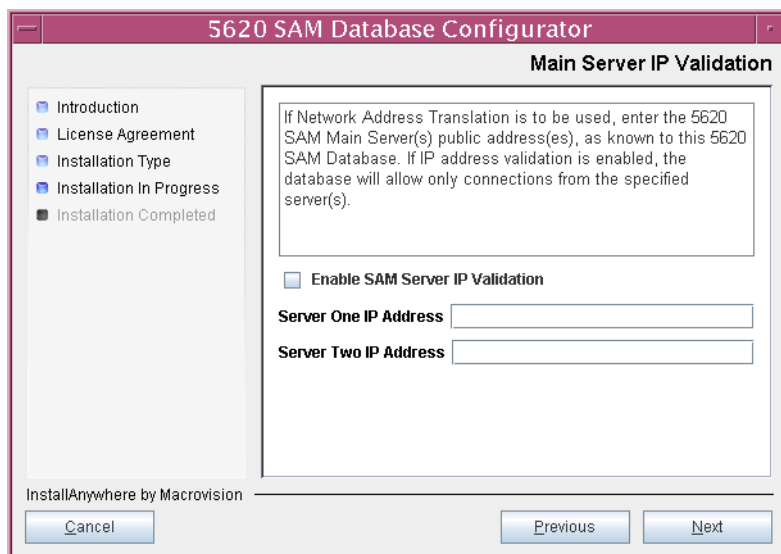
Figure 5-64 Determine Memory Requirements



- 103 If the “Enable SAM Server IP Validation” parameter shown in Figure 5-65 is selected, only the servers at the specified IP addresses or hostnames can connect to the database. If required, select it and configure the following parameters. Click on the Next button.

- Server One IP Address
- Server Two IP Address

Figure 5-65 Main Server IP Validation



- 104 The panel in Figure 5-66 is displayed if the “Enable SAM Server IP Validation” parameter in step 103 is selected. Otherwise, go to step 106.

If the 5620 SAM system includes an auxiliary server, perform the following steps.

- i Click on the Add button shown in Figure 5-66. The form shown in Figure 5-67 opens.

Figure 5-66 Auxiliary Server IP Validation

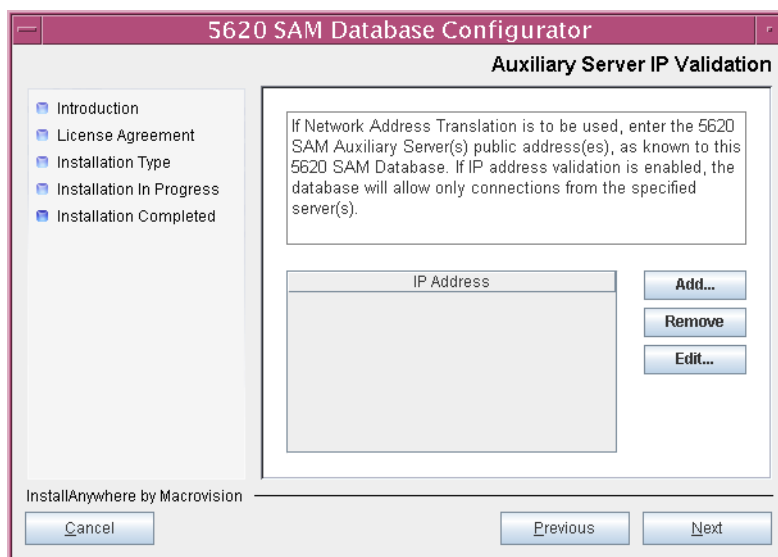
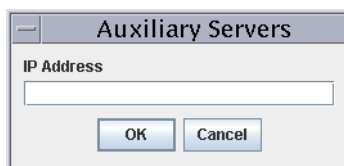


Figure 5-67 Auxiliary Servers



- ii Enter the IP address or hostname of the auxiliary server.
  - iii Click on the OK button to save the information and close the form.
  - iv Repeat steps 104 i to iii to specify an additional auxiliary server, if required.
- 105 Click on the Next button.

106 Configure the following parameters, shown in Figure 5-68, using the recorded values from the primary database conversion. Click on the Next button.

- Primary IP Address
- Primary Instance Name (typically samdb)
- Primary SYS Password
- Primary Database Listener Port (typically 1523)
- Primary Database Proxy Port (typically 9002)

Figure 5-68 Primary Database Info

The screenshot shows the '5620 SAM Database Configurator' window with the 'Primary Database Info' tab selected. The left sidebar contains a list of steps: Introduction, License Agreement, Installation Type, Installation In Progress, and Installation Completed. The main area contains a text box with instructions: 'Enter the IP address of the network interface the primary database requires to communicate with the server(s). If NAT (network address translation) is to be used, specify the primary database's public IP address.' Below this are five input fields: 'Primary IP Address' (empty), 'Primary Instance Name' (filled with 'samdb'), 'Primary SYS Password' (filled with '\*\*\*\*\*'), 'Primary Database Listener Port' (filled with '1523'), and 'Primary Database Proxy Port' (filled with '9002'). At the bottom, there are 'Cancel', 'Previous', and 'Next' buttons, and a footer that reads 'InstallAnywhere by Macrovision'.

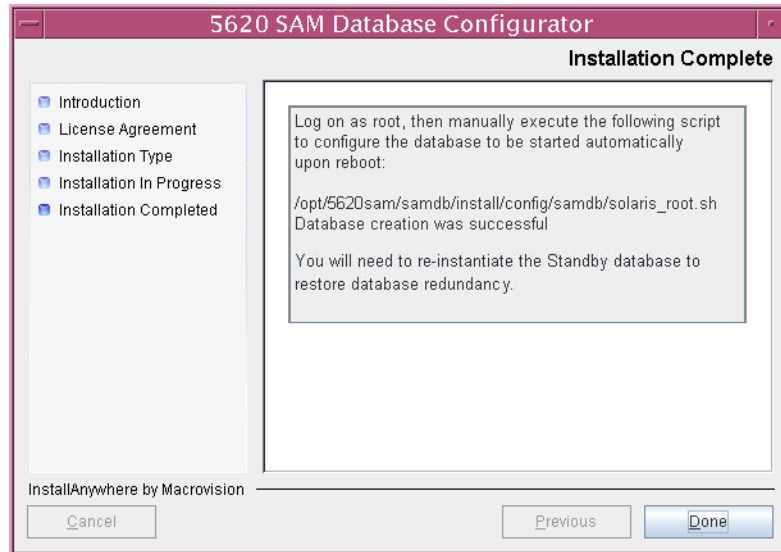
107 You are prompted to begin standby database creation, as shown in Figure 5-69. Click on the Start Process button to begin the database creation.

Figure 5-69 Standby Database Configuration

The screenshot shows the '5620 SAM Database Configurator' window with the 'Standby Database Configuration' tab selected. The left sidebar is the same as in Figure 5-68. The main area contains a text box with instructions: 'The database config process is short. Once the configuration files are in place, you can create the standby database later using Standby Re-instantiation.' At the bottom right of the main area is a 'Start Process' button. At the bottom of the window, there are 'Cancel', 'Previous', and 'Next' buttons, and a footer that reads 'InstallAnywhere by Macrovision'.

- 108 When the panel in Figure 5-70 is displayed, the 5620 SAM database installation is complete, but as shown in the panel text, you must run a script to enable automatic database startup.

Figure 5-70 Installation Complete



Perform the following steps to run the script described in the panel.

- i Open a separate console window as a user with root or root-equivalent privileges.
- ii Enter the following at the CLI prompt:

```
path/install/config/samdb/solaris_root.sh
```

where *path* is the 5620 SAM database installation location, typically /opt/5620sam/samdb

The script returns messages similar to the following:

```
creating link for /usr/local/lib/libiconv.so.2
creating link for /usr/local/lib/libpopt.so.0
creating link for /usr/local/lib/libintl.so.8
creating link for /usr/local/lib/libgcc_s.so.1
```

- iii When the script execution is complete, close the console window.

- 109 Click on the Done button to close the database installer.

The next section of the procedure describes the installation of the standby 5620 SAM server. You can install the standby server on the same station that contains the standby database, or on a different station. Server installation requires root-equivalent privileges.

**Install standby server**

110 Log in to the station that is to be the standby server station as a user with root or root-equivalent privileges.

111 Open a console window.

112 Perform the following steps to ensure that no-one is logged in to the station as the samadmin user.

i Enter the following at the CLI prompt:

```
who ↵
```

The active user sessions are listed.

ii If the samadmin user is listed, close each samadmin user session. See the appropriate Solaris documentation for more information.

113 Place the 5620 SAM software DVD-ROM in a DVD-ROM drive.

114 Navigate to the DVD-ROM drive.

115 Perform one of the following to open the 5620 SAM server installer.

a On a Sun SPARC station:

i Enter the following at the CLI prompt:

```
cd Solaris ↵
```

ii Enter the following at the CLI prompt:

```
./ServerInstall_SAM_8_0_revision.bin ↵
```

where

*revision* is the revision identifier, such as R1, R3, or another descriptor

b On a Sun X86-based station:

i Enter the following at the CLI prompt:

```
cd Solarisx86 ↵
```

ii Enter the following at the CLI prompt:

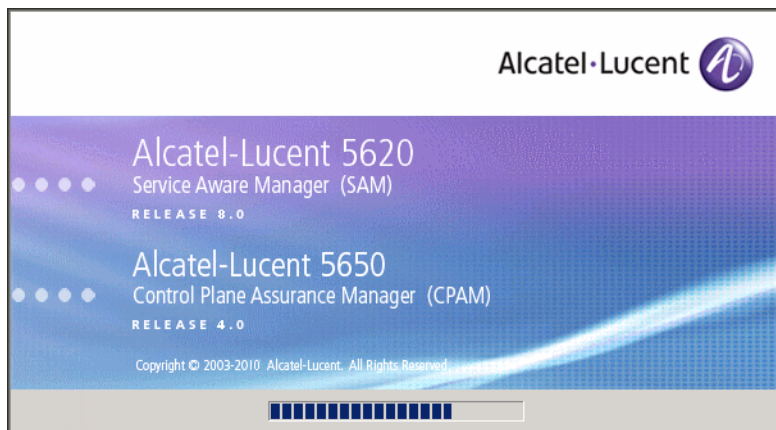
```
./ServerInstall_x86_SAM_8_0_revision.bin ↵
```

where

*revision* is the revision identifier, such as R1, R3, or another descriptor

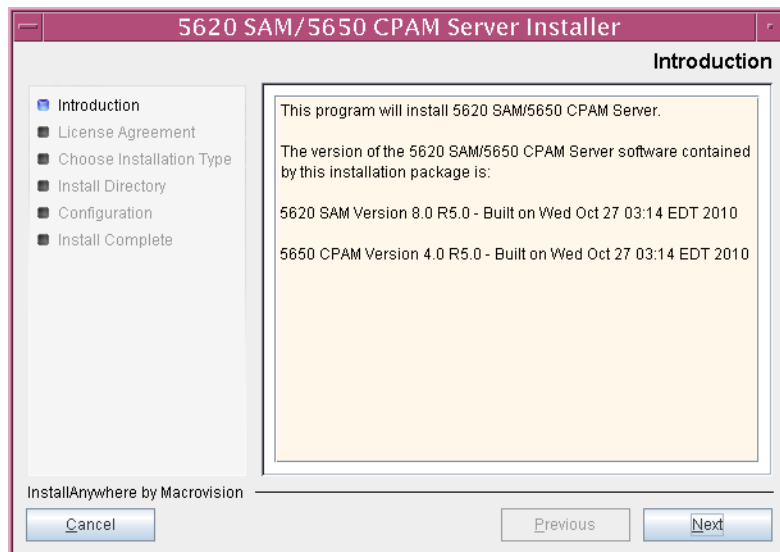
The splash screen shown in Figure 5-71 opens.

Figure 5-71 5620 SAM installer



- 116 The 5620 SAM server installer opens, as shown in Figure 5-72. The left pane indicates the installation progress. The right pane displays release information about the software. Click on the Next button.

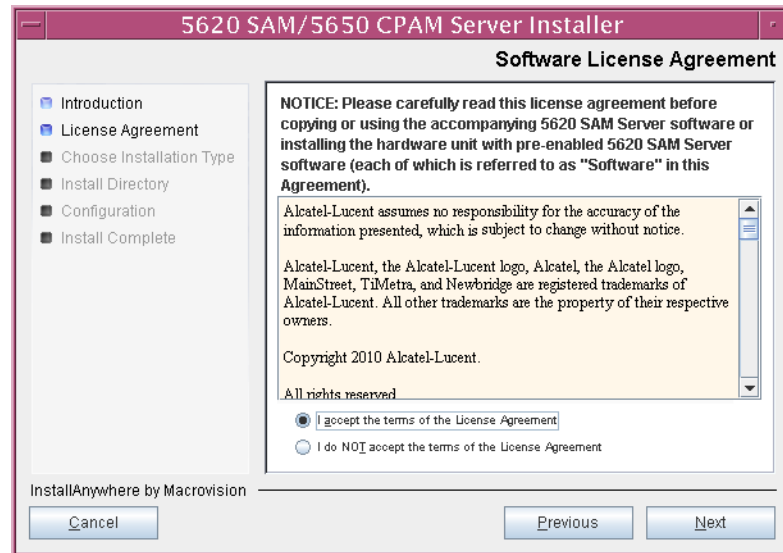
Figure 5-72 Introduction





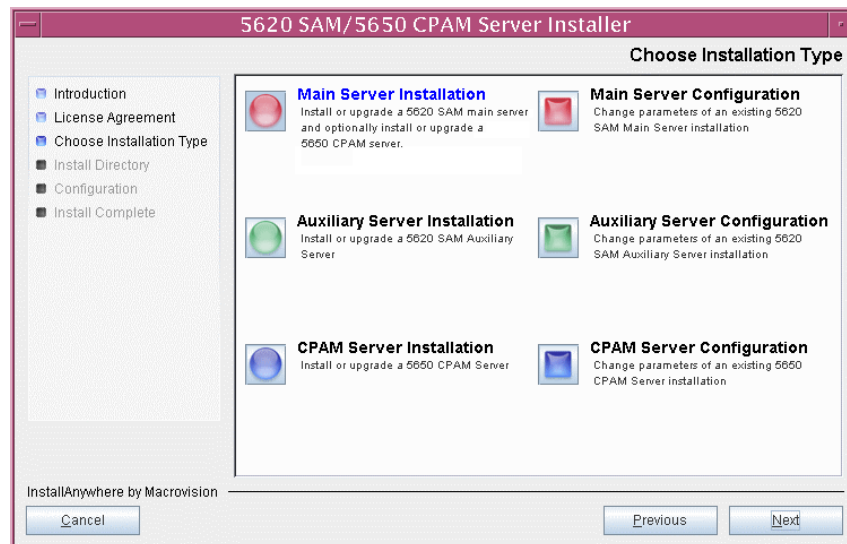
- 117 Review and accept the terms of the license agreement shown in Figure 5-73. Click on the Next button.

Figure 5-73 Software License Agreement



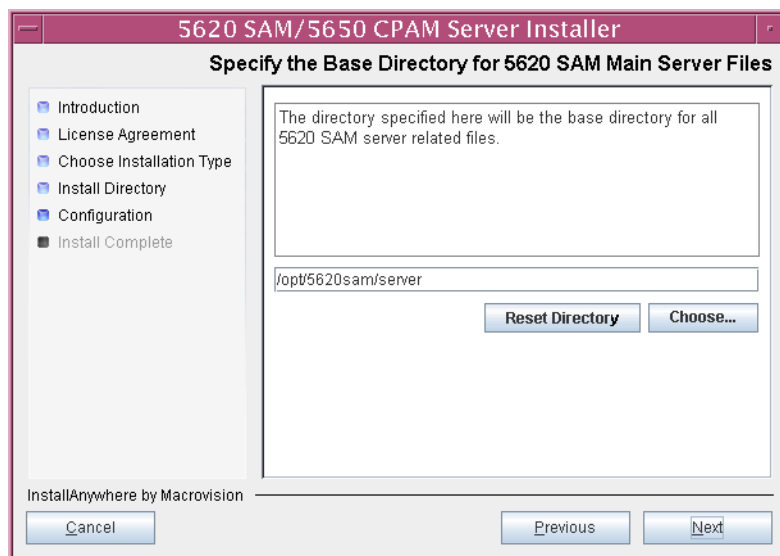
- 118 Select Main Server Installation, as shown in Figure 5-74. Click on the Next button.

Figure 5-74 Choose Installation Type



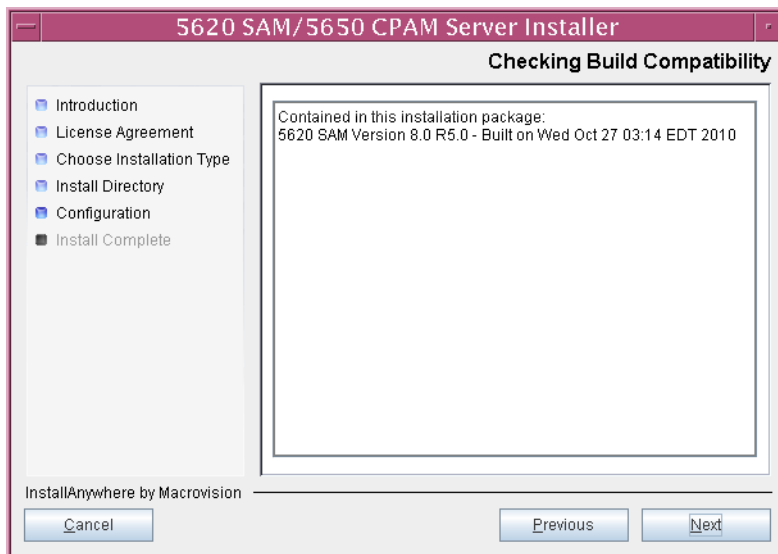
- 119 Specify a base directory in which to install the standby 5620 SAM main server software (typically /opt/5620sam/server), as shown in Figure 5-75. Click on the Next button.

Figure 5-75 Specify the Base Directory for 5620 SAM Main Server Files



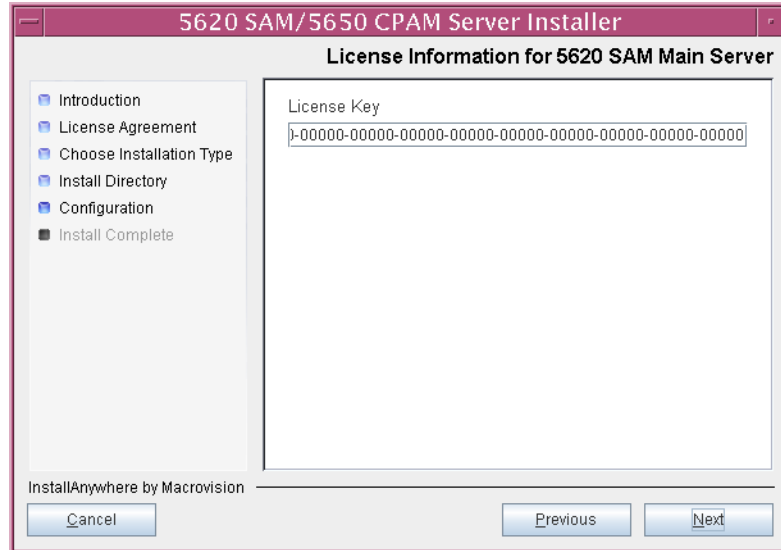
- 120 As shown in Figure 5-76, the installer indicates which release of 5620 SAM software is to be installed. Verify the information. Click on the Next button.

Figure 5-76 Checking Build Compatibility



- 121 Enter the License Key information exactly as received from Alcatel-Lucent. Include the dashes in the key, as shown in Figure 5-77. Click on the Next button.

Figure 5-77 License Information for 5620 SAM Main Server



122 Configure the following parameters shown in Figure 5-78, then click on the Next button.

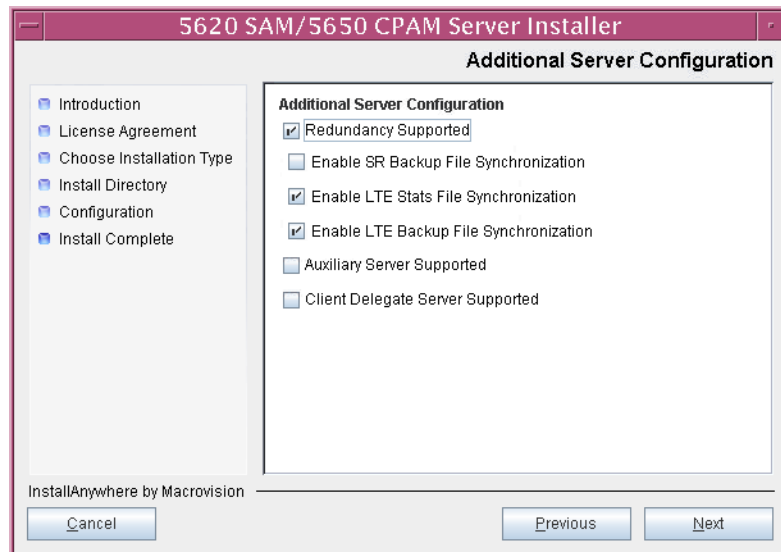
- Redundancy Supported
- Enable SR Backup File Synchronization
- Enable LTE Stats File Synchronization
- Enable LTE Backup File Synchronization
- Auxiliary Server Supported
- Client Delegate Server Supported



**Note 1** — You must select the Redundancy Supported parameter.

**Note 2** — The Enable SR Backup File Synchronization and Enable LTE Backup File Synchronization parameters are displayed only when the Redundancy Supported parameter is enabled.

Figure 5-78 Additional Server Configuration



123 Configure the following parameters, shown in Figure 5-79, using the recorded values from the primary database conversion. Click on the Next button.

- Primary Database IP Address
- Primary Database Server Port (typically 1523)
- Primary Database Instance Name (typically samdb)
- Database User Name (typically samuser)
- Database User Password
- Primary Database Proxy Port (typically 9002)

Figure 5-79 Primary Database Configuration

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window with the 'Primary Database Configuration' tab selected. On the left is a navigation pane with the following options: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (selected), and Install Complete. The main area contains a text box with instructions: 'If NAT (network address translation) is to be used, enter the primary 5620 SAM database's public IP address, as known to the 5620 SAM server.' Below this are six input fields: 'Primary Database Server IP Address' (empty), 'Primary Database Server Port' (1523), 'Primary Database Instance Name' (samdb), 'Database User Name' (samuser), 'Database User Password' (masked with asterisks), and 'Primary Database Proxy Port' (9002). At the bottom, there is a 'Cancel' button on the left and 'Previous' and 'Next' buttons on the right. The footer text reads 'InstallAnywhere by Macrovision'.

124 Depending on the existing configuration, the panel in Figure 5-80 is displayed. Configure the following parameters, if required, then click on the Next button:

- Online Database Backup Interval (hours) (typically 24)
- Online Backup Destination (typically /opt/5620sam/dbbackup)
- Number Of Backup Sets (typically 3)



**Note** — The Online Backup Destination is a path on the file system of the database station specified in step 123.

Figure 5-80 Online Database Backup

The screenshot shows a window titled "5620 SAM/5650 CPAM Server Installer" with a sub-header "Online Database Backup". On the left is a navigation pane with the following items: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration, and Install Complete (which is selected). The main area contains a text box stating: "The database backup directory resides on the database workstation. Please ensure that the specified directory exists on the database workstation and it is writable." Below this are three input fields: "Online Backup Interval (Hours)" with the value 24, "Online Backup Destination" with the value /opt/5620sam/dbbackup, and "Number Of Backup Sets" with the value 3. At the bottom left is the text "InstallAnywhere by Macrovision" and a "Cancel" button. At the bottom right are "Previous" and "Next" buttons.

125 Configure the following parameters shown in Figure 5-81, then click on the Next button:

- Database Server IP Address
- Database Instance Name (typically samdb2)
- Database Proxy Port (typically 9002)
- Enable Database Backup File Synchronization

Figure 5-81 Standby Database Configuration

The screenshot shows the 'Standby Database Configuration' window of the '5620 SAM/5650 CPAM Server Installer'. On the left is a navigation pane with the following items: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (selected), and Install Complete. The main area contains a text box with instructions: 'If NAT (network address translation) is to be used, enter the standby 5620 SAM database's public IP address as known to the 5620 SAM server.' Below this are three input fields: 'Database Server IP Address' (highlighted in yellow), 'Database Instance Name' (containing 'samdb2'), and 'Database Proxy Port' (containing '9002'). There is an unchecked checkbox for 'Enable Database Backup File Synchronization'. At the bottom left, it says 'InstallAnywhere by Macrovision' with a 'Cancel' button. At the bottom right are 'Previous' and 'Next' buttons.

- 126 The panel in Figure 5-82 is displayed if you select “Auxiliary Server Supported” in step 122. Otherwise, go to step 128.

Perform the following steps to specify an auxiliary server, if required.

- i Configure the following parameters shown in Figure 5-82:
  - NAT (network address translation) Used  
Select this parameter only if NAT is to be used between the 5620 SAM main and auxiliary servers.
  - Private IP (accessible only by this server)  
You must configure this parameter if you select the NAT (network address translation) Used parameter.
  - Public IP (accessible to auxiliary)
  - Server Port (typically 12800)
  - Enable Stats Collection on Auxiliary Servers
  - Enable Call Trace Collection on Auxiliary Servers



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 5-82.

Figure 5-82 Main Server Configuration for Auxiliary Servers

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window. The title bar is red. The main window has a left sidebar with a tree view containing: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration, and Install Complete. The 'Configuration' item is selected. The main area is titled 'Main Server Configuration for Auxiliary Servers'. It contains a text box with instructions: 'Enter the the network interface information that this 5620 SAM main server requires to communicate with the 5620 SAM auxiliary servers. At least one service type checkbox must be selected.' Below this are several configuration options:
 

- ☒ NAT (network address translation) Used
- Private IP (accessible only by this server): 192.168.200.111 (dropdown menu)
- Public IP (accessible to auxiliary): (empty text box with yellow background)
- Server Port: 12800 (text box)
- ☐ Enable Stats Collection on Auxiliary Servers
- ☒ Enable Call Trace Collection on Auxiliary Servers

 At the bottom left, it says 'InstallAnywhere by Macrovision'. At the bottom right, there are 'Cancel', 'Previous', and 'Next' buttons.

- ii Click on the Next button.



- iii Click on the Add button shown in Figure 5-83 to specify an auxiliary server. The form shown in Figure 5-84 opens.

Figure 5-83 Auxiliary Servers

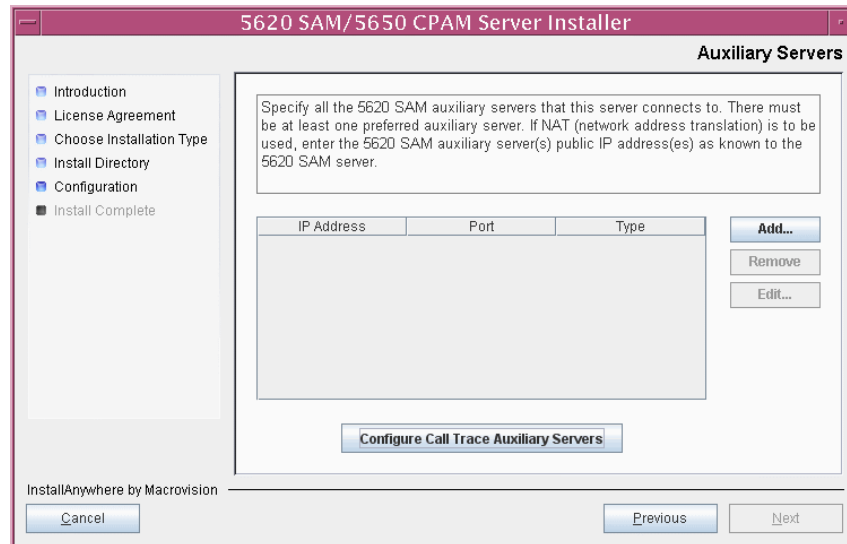
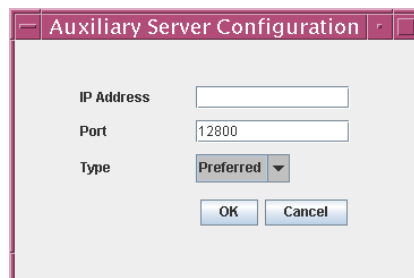


Figure 5-84 Auxiliary Server Configuration



- iv Configure the following parameters shown in Figure 5-84:
- IP Address
  - Port (typically 12800)
  - Type (Preferred or Reserved)
- v Click on the OK button to save the information and close the form.
- vi Repeat steps 126 iii to v to specify an additional auxiliary server, if required.
- vii If “Enable Call Trace Collection on Auxiliary Servers” is selected in step 126 i, click on the “Configure Call Trace Auxiliary Servers” button shown in Figure 5-83. Otherwise, go to step 127.

- viii The form shown in Figure 5-85 opens. Select a preferred auxiliary server in the upper left panel and the associated reserved auxiliary server in the lower left panel, and click on the “Make Pair from Selected” button. The auxiliary servers move to the list on the right side of the form.

Figure 5-85 Configure Call Trace Auxiliary Servers

Select one preferred server and one reserved server from the left side. Add those servers to the right side using the 'Make Pair from Selected' button.

| Preferred Auxiliary Servers |       |
|-----------------------------|-------|
| IP Address                  | Port  |
| 10.1.1.1                    | 12800 |
| 10.1.1.2                    | 12800 |
| 10.1.1.3                    | 12800 |

| Reserved Auxiliary Servers |       |
|----------------------------|-------|
| IP Address                 | Port  |
| 10.2.2.1                   | 12800 |
| 10.2.2.2                   | 12801 |
| 10.2.2.3                   | 12800 |

| Server Pairs        |                    |
|---------------------|--------------------|
| Preferred Server IP | Reserved Server IP |

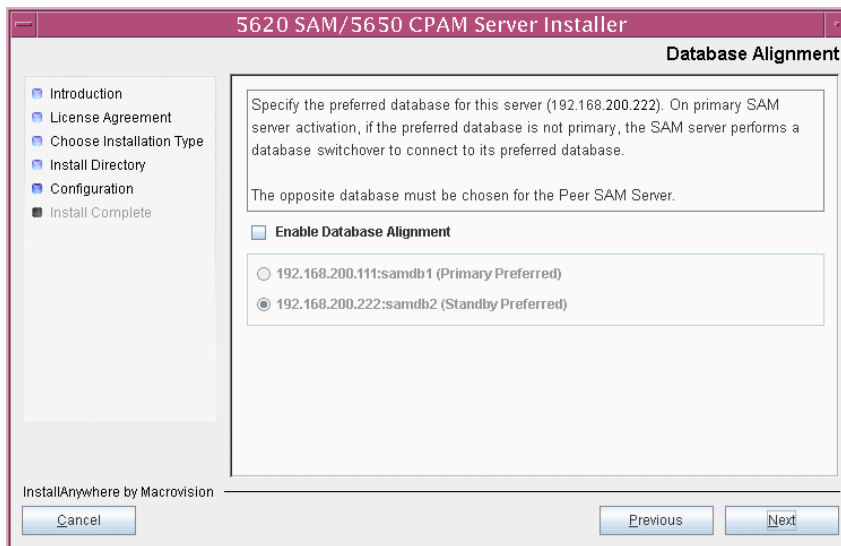
Make Pair from Selected      Remove Selected Pair      OK      Cancel

- ix Repeat step 126 viii to configure another call-trace auxiliary server pair, if required.

127 Click on the Next button.

- 128 If you select the Enable Database Alignment parameter shown in Figure 5-86, you must specify the preferred database of this main server. Click on the Next button.

Figure 5-86 Database Alignment



129 Perform the following steps.

- i Configure the following parameters shown in Figure 5-87:
  - Server Domain Name (typically 5620sam)  
This is a value that uniquely identifies the 5620 SAM server cluster.
  - Use Hostname for Communication  
Select this parameter if the main server is to use multiple interfaces for GUI and OSS client communication.

Figure 5-87 Main Server Configuration for Clients

**5620 SAM/5650 CPAM Server Installer**

**Main Server Configuration for Clients**

Enter the network interface information that the GUI and OSS clients require to communicate with this 5620 SAM main server.

If multiple addresses are to be used for communication with GUI clients, OSS clients, and auxiliary servers, a hostname must be provided for the Public Hostname field.

Server Domain Name

☐ Use Hostname for Communication (recommended if NAT is used)

☒ NAT (network address translation) Used

Private IP (accessible only by this server)

Public IP (accessible to clients)

EJB JNDI Server port

EJB JMS Server port

☐ Enable 5670 RAM

☐ Enable 3GPP OSS Interface

InstallAnywhere by Macrovision

- ii If you select Use Hostname for Communication, go to step 129 vi.
- iii Configure the following parameters:
  - NAT (network address translation) Used
  - Private IP (accessible only by this server)
  - Public IP (accessible to clients)
  - EJB JNDI Server port (typically 1099)
  - EJB JMS Server port (typically 8093)
  - Enable 5670 RAM
  - Enable 3GPP OSS Interface



**Note —** The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 5-87.

- iv Click on the Next button.

- v Go to step 131.
- vi Configure the following parameters shown in Figure 5-88:
  - NAT (network address translation) Used
  - Private IP (accessible only by this server)
  - Public Hostname
  - EJB JNDI Server port (typically 1099)
  - EJB JMS Server port (typically 8093)
  - Enable 5670 RAM
  - Enable 3GPP OSS Interface



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 5-88.

Figure 5-88 Main Server Configuration for Clients

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window with the 'Main Server Configuration for Clients' tab selected. The left sidebar shows the installation steps: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (selected), and Install Complete. The main configuration area contains the following fields and options:

- Server Domain Name:** 5620sam
- ☒ **Use Hostname for Communication (recommended if NAT is used)**
- ☒ **NAT (network address translation) Used**
- Private IP (accessible only by this server):** 192.168.200.222
- Public Hostname:** (empty field)
- EJB JNDI Server port:** 1099
- EJB JMS Server port:** 8093
- ☐ **Enable 5670 RAM**
- ☐ **Enable 3GPP OSS Interface**

At the bottom, there are 'Cancel', 'Previous', and 'Next' buttons. The text 'InstallAnywhere by Macrovision' is visible in the bottom left corner.

- vii Click on the Next button.

130 Configure the following parameters shown in Figure 5-89, then click on the Next button:

- RMI Port (typically 1098)
- RMI Object Port (typically 4444)

Figure 5-89 Main Server Configuration for Clients (cont.)

5620 SAM/5650 CPAM Server Installer

Main Server Configuration for Clients (cont.)

Introduction  
License Agreement  
Choose Installation Type  
Install Directory  
Configuration  
Install Complete

RMI Port 1098

RMI Object Port 4444

InstallAnywhere by Macrovision

Cancel Previous Next

131 Configure the following parameters shown in Figure 5-90:

- NAT (network address translation) Used  
Select this parameter only if NAT is to be used between this 5620 SAM server and the peer 5620 SAM server.
- Private IP (accessible only by this server)
- Public IP (accessible to peer server)
- High Available JNDI Port (typically 1100)
- TCP Port Cluster Number (typically 11800)



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 5-90.

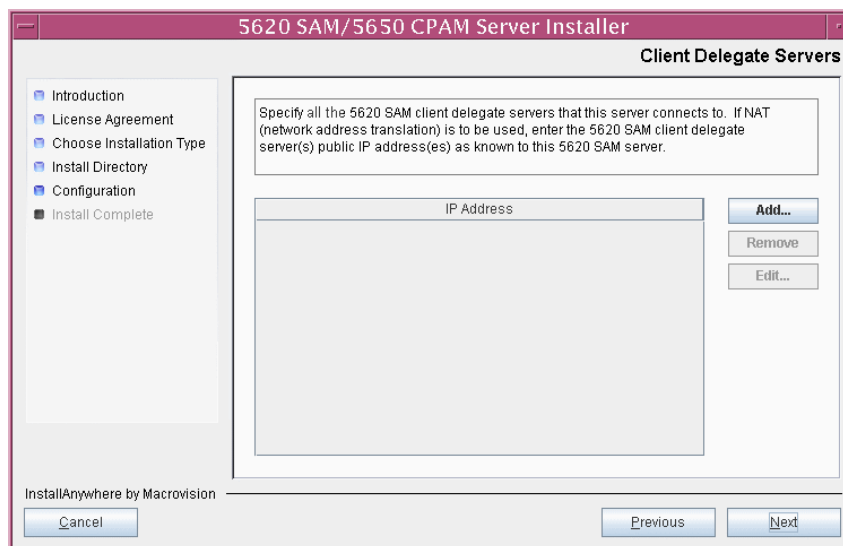
Figure 5-90 Main Server Configuration for Peer Server

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window. The title bar reads '5620 SAM/5650 CPAM Server Installer'. The main window title is 'Main Server Configuration for Peer Server'. On the left is a navigation pane with the following items: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (selected), and Install Complete. The main area contains a text box with the instruction: 'Enter the network interface information that this 5620 SAM main server requires to communicate with the peer server.' Below this are several configuration options: a checked checkbox for 'NAT (network address translation) Used', a 'Private IP (accessible only by this server)' dropdown menu showing '192.168.200.111', a 'Public IP (accessible to peer server)' text box (highlighted in yellow), a 'High Available JNDI Port' text box with '1100', and a 'TCP Port Cluster Number' text box with '11800'. At the bottom left is the text 'InstallAnywhere by Macrovision' and a 'Cancel' button. At the bottom right are 'Previous' and 'Next' buttons.

- 132 The panel in Figure 5-91 is displayed if you select “Client Delegate Server Supported” in step 122. Otherwise, go to step 133.

Click on the Add button to specify the client delegate server IP addresses, as required. If NAT is used between the 5620 SAM server and client delegate servers, specify the public IP address. Click on the Next button.

Figure 5-91 Client Delegate Servers





133 Perform one of the following to specify where the 5620 SAM user documentation is to be stored.

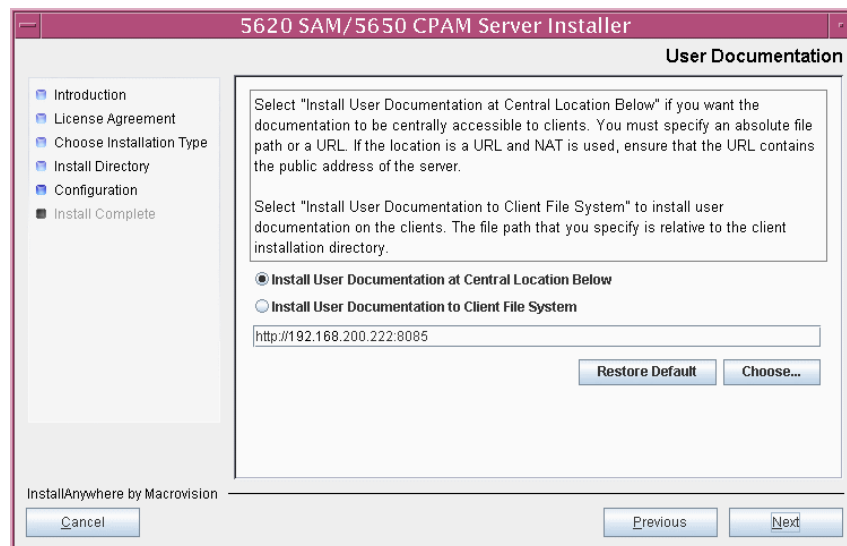
- a To store the documentation in a central location that is available to all clients, perform the following steps.
  - i Select the “Install User Documentation at Central Location Below” parameter, as shown in Figure 5-92.
  - ii To accept the default user documentation location that is displayed, go to step 134.



**Note —** If NAT is used between the 5620 SAM server and clients, you must update the default location using the public IP address of the server, or the documentation is not accessible to clients.

- iii Specify a location for the 5620 SAM user documentation in the field below the parameters.
- iv Copy the contents of the User\_Documentation directory on the 5620 SAM software DVD-ROM to the location specified in step iii.
- v Click on the Next button. A dialog box appears.
- vi Click on the OK button.

Figure 5-92 User Documentation



- b To store a copy of the documentation on the client file system, perform the following steps.
  - i Select the “Install User Documentation to Client File System” parameter shown in Figure 5-92.
  - ii Specify a file path relative to the 5620 SAM client installation directory. The path must not contain a leading slash.

For example, if the installation directory is /opt/5620sam/client and you specify Documents as the location, the documentation is installed in the following directory:

/opt/5620sam/client/Documents

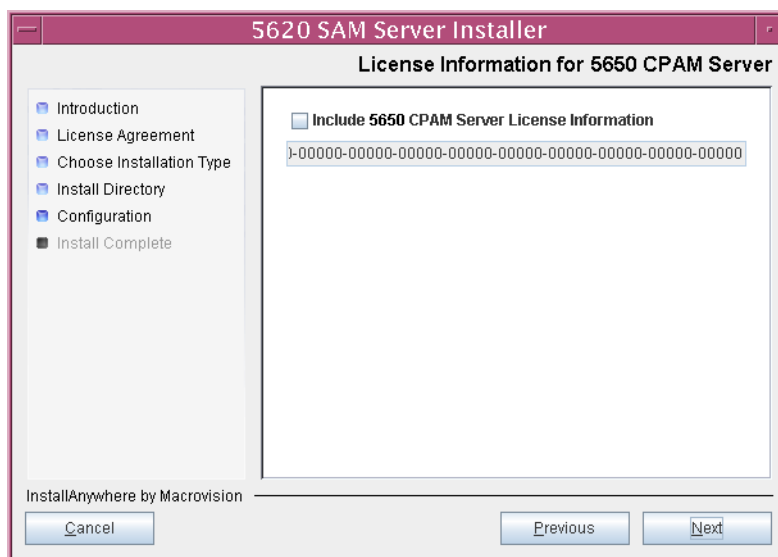


**Note** — The 5620 SAM client uninstaller cannot remove the documentation unless it is installed below the nms directory in the 5620 SAM client installation directory, for example, /opt/5620sam/client/nms/Documents.

134 Click on the Next button.

135 Specify whether the 5620 SAM configuration includes a 5650 CPAM server, as shown in Figure 5-93. If it does, enter the 5650 CPAM license key provided by Alcatel-Lucent. Include the dashes in the key. Click on the Next button.

Figure 5-93 License Information for 5650 CPAM Server



136 Configure the following parameters shown in Figure 5-94, then click on the Next button:

- NAT (network address translation) Used  
Select this parameter only if NAT is to be used between the 5620 SAM main server and the managed network.
- SNMP Trap Receiving IPv4 Address
- SNMP Trap Receiving IPv6 Address
- SNMP Trap Receiving Port (typically 162)
- Trap Log Id (typically 98)

Figure 5-94 SNMP Configuration

**5620 SAM Server Installer**

**SNMP Configuration**

Introduction  
License Agreement  
Choose Installation Type  
Install Directory  
Configuration  
Install Complete

If NAT (network address translation) is to be used, enter the 5620 SAM main server's public IP address as known to the devices within the managed network.

☐ NAT (network address translation) Used

☐ IPv6 Address Used

SNMP Trap Receiving IPv4 Address: 192.168.200.133

SNMP Trap Receiving IPv6 Address:

SNMP Trap Receiving Port: 162

Trap Log Id: 98

InstallAnywhere by Macrovision

Cancel Previous Next

137 Configure the following parameters shown in Figure 5-95, then click on the Next button:

- Peer Server IP Address
- Peer Server Trap Log Id (typically 98)
- Peer Server SNMP Trap Receiving IPv4 Address
- Peer Server SNMP Trap Receiving IPv6 Address
- Peer Server SNMP Trap Receiving Port (typically 162)
- Peer Server TCP Port Cluster Number (typically 11800)

Figure 5-95 Peer Main Server Configurations

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window. The title bar is purple with the text '5620 SAM/5650 CPAM Server Installer'. The main window has a purple header bar with the text 'Peer Main Server Configurations'. On the left side, there is a vertical list of steps: 'Introduction', 'License Agreement', 'Choose Installation Type', 'Install Directory', 'Configuration' (which is highlighted with a blue square), and 'Install Complete' (which has a small square icon next to it). The main area of the window contains a text box with the following text: 'If NAT (network address translation) is to be used, enter the 5620 SAM peer server's public IP address as known to the 5620 SAM server. Also enter the 5620 SAM peer server's public IP address as known to the devices within the managed network.' Below this text box are six input fields: 'Peer Server IP Address' (empty), 'Peer Server Trap Log Id' (containing '98'), 'Peer Server SNMP Trap Receiving IPv4 Address' (empty), 'Peer Server SNMP Trap Receiving IPv6 Address' (empty), 'Peer Server SNMP Trap Receiving Port' (containing '162'), and 'Peer Server TCP Port Cluster Number' (containing '11800'). At the bottom left, there is a small text 'InstallAnywhere by Macrovision' and a 'Cancel' button. At the bottom right, there are 'Previous' and 'Next' buttons.

138 If you selected the Use Hostname for Communication parameter in step 129, go to step 140.

139 Configure the following parameters shown in Figure 5-96, then click on the Next button:

- 5620 SAM Peer Server IP Address
- 5620 SAM JNDI High Available Peer Server Port (typically 1100)
- 5620 SAM JNDI Peer Server Port (typically 1099)

Figure 5-96 Peer Main Server Configurations (cont.)

**5620 SAM/5650 CPAM Server Installer**

**Peer Main Server Configurations (cont.)**

Enter the IP address of the network interface the GUI and OSS clients require to communicate with the peer server. If NAT (network address translation) is to be used, specify the public IP address as known to the 5620 SAM clients.

If multiple addresses are to be used for communication with GUI clients, OSS clients, and auxiliary servers, a hostname must be provided for the 5620 SAM Peer Server Hostname field.

5620 SAM Peer Server IP Address

5620 SAM JNDI High Available Peer Server Port

5620 SAM JNDI Peer Server Port

InstallAnywhere by Macrovision

140 Configure the following parameters shown in Figure 5-97, then click on the Next button:

- 5620 SAM Peer Server Hostname
- 5620 SAM JNDI High Available Peer Server Port (typically 1100)
- 5620 SAM JNDI Peer Server Port (typically 1099)

Figure 5-97 Peer Main Server Configurations (cont.)

**5620 SAM/5650 CPAM Server Installer**

**Peer Main Server Configurations (cont.)**

Enter the IP address of the network interface the GUI and OSS clients require to communicate with the peer server. If NAT (network address translation) is to be used, specify the public IP address as known to the 5620 SAM clients.

If multiple addresses are to be used for communication with GUI clients, OSS clients, and auxiliary servers, a hostname must be provided for the 5620 SAM Peer Server Hostname field.

5620 SAM Peer Server Hostname

5620 SAM JNDI High Available Peer Server Port

5620 SAM JNDI Peer Server Port

InstallAnywhere by Macrovision

141 If you require 5620 SAM client navigation from a 5620 NM system, select the "Enable Navigation from External Systems" parameter shown in Figure 5-98 and specify the TCP port that the client is to use for accepting navigation requests. Click on the Next button.

Figure 5-98 Navigation from External Systems

**5620 SAM/5650 CPAM Server Installer**

**Navigation from External Systems**

Select this option to enable GUI navigation from a 5620 NM system.

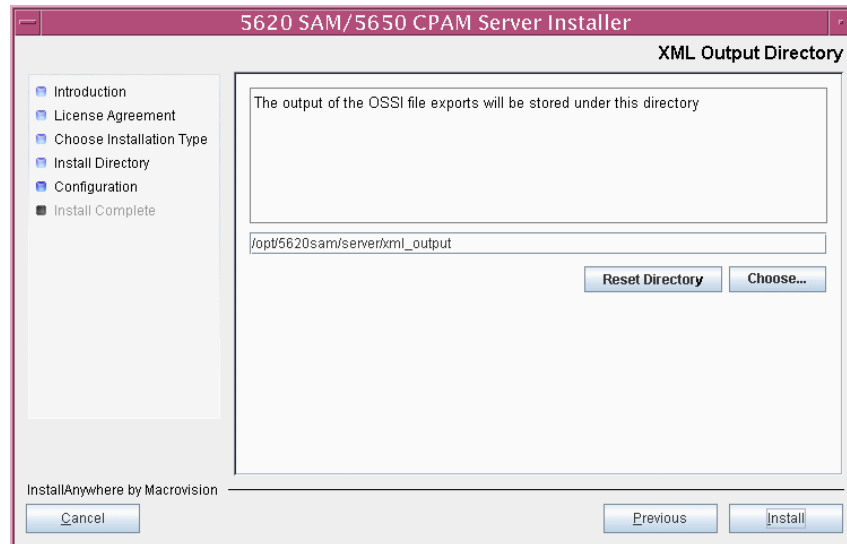
☐ Enable Navigation from External Systems

TCP port for accepting GUI navigation requests

InstallAnywhere by Macrovision

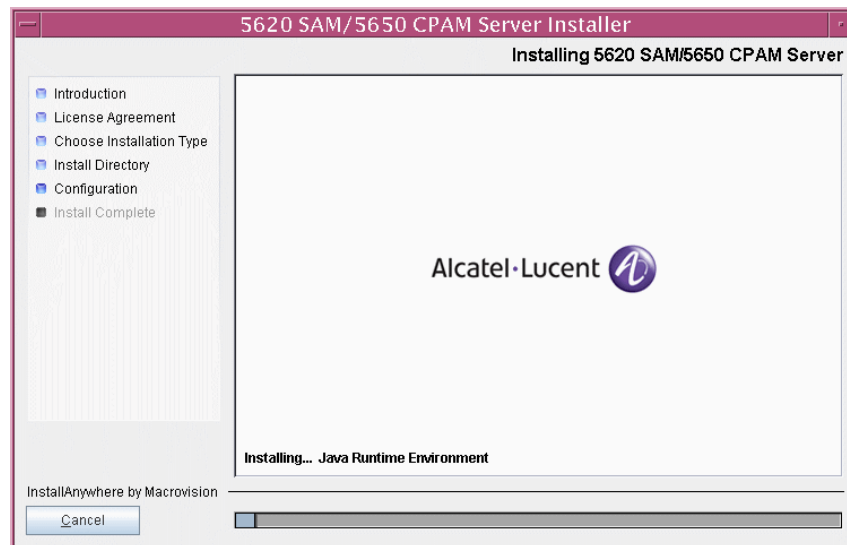
- 142 Specify an OSS XML output location (typically /opt/5620sam/server/xml\_output), as shown in Figure 5-99. Click on the Install button to begin the server installation.

Figure 5-99 XML Output Directory



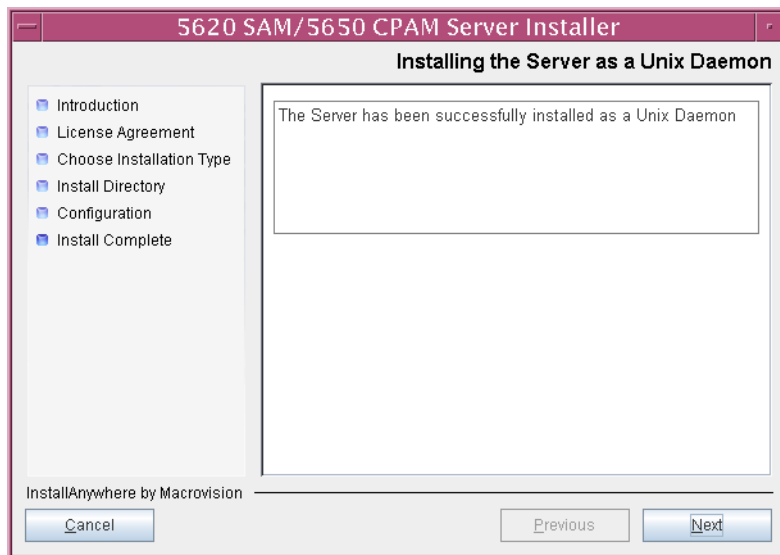
The next panel displays installation progress, as shown in Figure 5-100.

Figure 5-100 Installing 5620 SAM/5650 CPAM Server



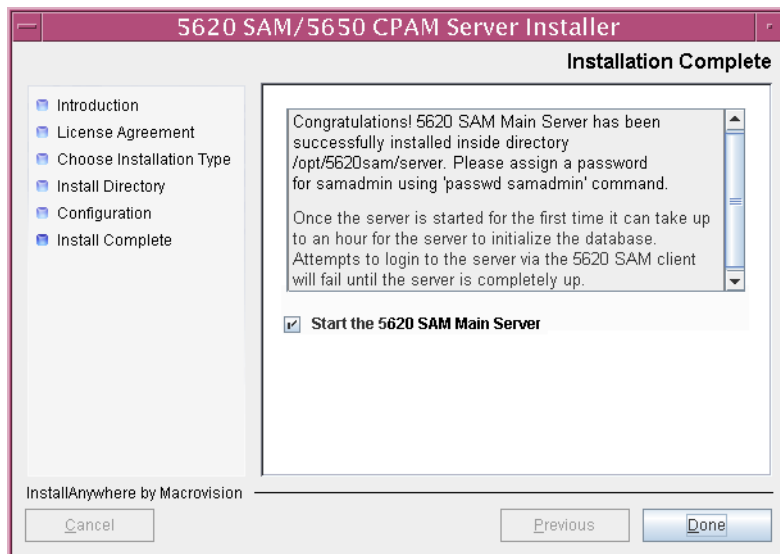
- 143 As shown in Figure 5-101, the 5620 SAM server is installed as a UNIX daemon. Click on the Next button.

Figure 5-101 Installing the Server as a Unix Daemon



- 144 When the server installation is complete, select the "Start the 5620 SAM Main Server" parameter, as shown in Figure 5-102, to specify that the server is to start immediately after the installation.

Figure 5-102 Installation Complete



- 145 View the panel text to see whether it states that you must assign a password to samadmin, as shown in Figure 5-102. This information is required in step 147.



- 146 Click on the Done button to close the server installer. The server starts. Initial server startup can take twenty minutes or more.
- 147 If this is the first 5620 SAM server installation on the station, the installer creates a user account called samadmin for 5620 SAM system administration.

If you must assign a password to samadmin, as determined in step 145, perform the following steps.

- i Enter the following at the CLI prompt:

```
passwd samadmin
```

The following prompt is displayed:

```
New Password:
```

- ii Enter the new password and press ↵.

The following prompt is displayed:

```
Confirm New Password:
```

- iii Enter the new password again and press ↵. The password is changed.

- iv Record the new password and store it in a secure location.

- 148 Perform the following steps to verify that the standby 5620 SAM main server is started.

- i Enter the following at the CLI prompt to switch to the samadmin user:

```
su - samadmin ↵
```

- ii Enter the following at the CLI prompt to change to the server binary directory:

```
bash$ cd path/nms/bin ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

- iii Enter the following at the CLI prompt:

```
bash$ path/nms/bin/nmsserver.bash -s nms_status ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

The command returns server status information.

If the new standby main server is not completely started, the first line of status information is the following:

```
Main Server is not ready...
```

The new standby 5620 SAM server is completely started when the command returns the following line of output:

-- Standby server is UP

- iv If the command output indicates that the server is not completely started, wait five minutes and enter the command again to check the output.



**Note —** Do not proceed to the next step until the server is completely started.

The next section of the procedure describes the transfer, or reinstantiation, of the primary database to the standby database station.

### Reinstantiate standby database

- 149 Log in to a 5620 SAM client as the admin user.
- 150 Choose Administration→System Information from the 5620 SAM main menu. The System Information form opens with the General tab displayed.
- 151 Click on the Re-Instantiate Standby button. A dialog box appears.
- 152 Click on the Yes button. The database reinstantiation begins.

You can view the reinstantiation status on the client GUI status bar or on the System Information form. The Standby Re-instantiation State changes from In Progress to Success when reinstantiation is complete. The start time of the reinstantiation is shown by the Last Attempted Standby Re-instantiation Time indicator.



**Note —** Database reinstantiation can take a long time when there is a large amount of statistics information to transfer.

- 153 When the Standby Re-instantiation State displays Success, close the System Information form.
  - 154 Use the 5620 SAM client GUI to perform sanity testing of the newly redundant 5620 SAM server and database, as required.
-

## ***6 — 5620 SAM platform migration***

---

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- 6.2 5620 SAM platform migration procedures list 6-2
- 6.3 Workflow for 5620 SAM platform migration 6-3
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## 6.1 5620 SAM platform migration overview

Before you attempt to perform a procedure in this chapter, ensure that you understand and comply with the relevant requirements, considerations, and precautions described in chapter 1 of this document.



**Caution —** Alcatel-Lucent supports 5620 SAM system migration and software configuration only under the conditions described in chapter 1.

The 5620 SAM supports the transfer, or migration, of a 5620 SAM system between platforms that have different processing architectures. The migration paths that the 5620 SAM supports are the following:

- Sun SPARC-based Solaris to Sun x86-based Solaris
- Sun x86-based Solaris to Sun SPARC-based Solaris



**Note 1 —** The new physical stations to which the 5620 SAM system migrates must have the same processing architecture and their OSs must be at the same release and patch level.

**Note 2 —** You cannot upgrade the 5620 SAM software as part of a 5620 SAM system migration. To upgrade your 5620 SAM system and move it to a different platform, you must upgrade the system before you perform the migration.

## 6.2 5620 SAM platform migration procedures list

Table 6-1 lists the procedures required to perform 5620 SAM platform migration activities.

Table 6-1 5620 SAM platform migration procedures list

| Procedure                                                        | Purpose                                                                                                                                                                                                                                |
|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| To perform the pre-migration tasks                               | Prepare a standalone or redundant 5620 SAM system on Solaris for a platform migration by ensuring the correct conditions are in place, gathering the required system information, and backing up the configuration files and database. |
| To relocate a standalone 5620 SAM system to a different platform | Relocate the 5620 SAM database and server software in a standalone configuration on one or more Solaris stations to one or more Solaris stations of a different type.                                                                  |
| To relocate a redundant 5620 SAM system to a different platform  | Relocate the 5620 SAM database and server software in a redundant configuration on Solaris stations to Solaris stations of a different type.                                                                                           |

## 6.3 Workflow for 5620 SAM platform migration

The following is the sequence of high-level actions required to relocate a standalone or redundant 5620 SAM system from one type of Solaris platform to another.

- 1 Perform the pre-migration tasks. See Procedure [6-1](#) for more information.
- 2 Perform the appropriate 5620 SAM migration procedure.
  - a To relocate a standalone 5620 SAM system to a new platform, perform Procedure [6-2](#).
  - b To relocate a redundant 5620 SAM system to a new platform, perform Procedure [6-3](#).
- 3 Perform sanity testing of the new 5620 SAM system using an existing 5620 SAM client.

## 6.4 5620 SAM platform migration preparation

This section describes how to prepare for the migration of a standalone or redundant 5620 SAM system from one type of Solaris platform to another.

Before you attempt a 5620 SAM platform migration, you must collect the required information and ensure that the proper conditions are in place. Procedure [6-1](#) describes how to perform the required tasks to prepare for a 5620 SAM platform migration.



**Note —** Command-line examples use the following to represent the Solaris CLI prompts:

- #—represents the prompt for a root or root or root-equivalent user
- bash\$—represents the prompt for the samadmin and Oracle management users

Do not type the # symbol or bash\$ when entering a command.

## Procedure 6-1 To perform the pre-migration tasks

---

Perform this procedure to prepare a standalone or redundant 5620 SAM system on one or more Solaris stations for migration to a different platform type. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



**Note** — You require the following user privileges to perform this procedure:

on each main server station:

- root or root-equivalent
- samadmin

on each database station:

- root or root-equivalent
- Oracle management

### General preparation

- 1 Ensure that the 5620 SAM software DVD-ROM is available.
- 2 Remove all outstanding failed deployments. See the *5620 SAM User Guide* for information about deleting a failed deployment.

### Back up configuration files

- 3 Make a backup copy of the *path/nms/config/nms-server.xml* configuration file on each server station.

where *path* is the 5620 SAM server installation location, typically */opt/5620sam/server*

Copy the file to a secure location that is unaffected by 5620 SAM migration activity, such as a non-5620 SAM station.

- 4 Make a copy of custom XML configuration files that may be present in the *path/nms/jboss* directory on each server station

where *path* is the 5620 SAM server installation location, typically */opt/5620sam/server*

Ensure that you store the files in a secure location that is unaffected by 5620 SAM migration activity, such as a non-5620 SAM station.

## Gather required information

- 5 Obtain the following information for the appropriate database station in the current 5620 SAM system and record it for use during the migration:



**Note** — The appropriate station is one of the following:

- the standalone database station in a standalone 5620 SAM system
  - the primary database station in a redundant 5620 SAM system
- root user password
    - UNIX username for Oracle management account (default value at installation is oracle)
    - Oracle database user ID (default value at installation is samuser)
    - Oracle database user password
    - Oracle SYS password
    - Oracle base installation directory name (default value at installation is /opt/5620sam/oracle)
    - 5620 SAM database installation directory name (default value at installation is /opt/5620sam/samr)
  - 6 Obtain the following information for each station that is to be a server station in the new 5620 SAM system and record it for use during the migration:
    - hostname
    - IP addresses
      - server IP addresses used by 5620 SAM databases to reach the server (public IP addresses, if NAT is used)
      - server IP address used by 5620 SAM GUI and OSS clients to reach the server (public IP address, if NAT is used)
      - server IP address used by 5620 SAM auxiliary servers to reach the server (public IP address, if NAT is used)
      - private server IP addresses (if NAT is used)
    - root user password
    - samadmin user password
  - 7 Obtain the following information for each station that is to be a database station in the new 5620 SAM system and record it for use during the migration:
    - hostname
    - IP addresses
      - database IP addresses used by 5620 SAM servers to reach the database (public IP addresses, if NAT is used)
      - database IP address used by 5620 SAM auxiliary servers to reach the database (public IP address, if NAT is used)
      - private database IP addresses (if NAT is used)
    - root user password

### Close unrequired clients

- 8 Close all open 5620 SAM client sessions except one.
  - i Open a 5620 SAM client session using an account with security management privileges, such as admin.
  - ii Click on Administration→Security→5620 SAM User Security in the 5620 SAM main menu. The 5620 SAM User Security - Security Management (Edit) form opens with the General tab displayed.
  - iii Click on the Sessions tab button.
  - iv Click on the Search button. The form displays a list of the open 5620 SAM client sessions.
  - v Using the IP addresses in the Client IP column, identify the GUI and OSS clients that are currently logged in.
  - vi Close the client sessions by selecting them and clicking on the Close Session button. A dialog box appears.



**Note** — One of the listed sessions is the session that you are using. Do not attempt to close this session.

- vii Click on the Yes button to confirm the action.
- viii Click on the Search button to refresh the list of open client sessions.

### Back up database

- 9 Alcatel-Lucent strongly recommends that you perform a database backup using one of the following methods before you perform a 5620 SAM system migration.



**Caution** — When you back up a 5620 SAM database, you must specify a backup directory that does not include the 5620 SAM database installation directory, or data loss may occur. The default 5620 SAM database installation directory is /opt/5620sam/samdb.

Perform one of the following.

- a Use the 5620 SAM client GUI. See the *5620 SAM User Guide* for information about how to perform a database backup using the client GUI.
- b Use a CLI script. Perform the following steps.
  - i Log in to the appropriate station as the Oracle management user:
    - the standalone database station in a standalone 5620 SAM system
    - the primary database station in a redundant 5620 SAM system
  - ii Open a console window.



- iii Enter the following at the CLI prompt to begin the database backup:

```
bash$ path/install/config/samdb/SAMbackup.sh
backup_directory ↵
```

where

*path* is the 5620 SAM database installation location, typically /opt/5620sam/samdb  
*backup\_directory* is the directory that is to contain the database backup

The 5620 SAM backs up the database.

- iv Record the backup directory location.
- v Copy the database backup files from the backup directory to a secure location, such as a non-5620 SAM station, for safekeeping.
- 

## 6.5 Standalone 5620 SAM platform migration procedures

This section describes the migration of a standalone 5620 SAM system from one type of Solaris platform to another.

Procedure 6-2 describes how to relocate a standalone 5620 SAM system.



**Note** — Command-line examples use the following to represent the Solaris CLI prompts:

- #—represents the prompt for a root or root-equivalent user
- bash\$—represents the prompt for the samadmin and Oracle management users

Do not type the # symbol or bash\$ when entering a command.

## Procedure 6-2 To relocate a standalone 5620 SAM system to a different platform

---

Perform this procedure to relocate a standalone 5620 SAM system on Solaris to a different platform type. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



**Note** — You require the following user privileges to perform this procedure:

on the main server station:

- root or root-equivalent
- samadmin

on the database station:

- root or root-equivalent
- Oracle management

### Stop server

- 1 Perform the following steps to stop the 5620 SAM main server application.

- i Log in to the main server station as the samadmin user.
- ii Open a console window.
- iii Enter the following at the CLI prompt to change to the server binary directory:

```
bash$ cd path/nms/bin ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

- iv Enter the following at the CLI prompt to stop the 5620 SAM server software:

```
bash$./nmsserver.bash stop ↵
```

- v Enter the following at the CLI prompt to display the 5620 SAM server status:

```
bash$./nmsserver.bash appserver_status ↵
```

The command displays a status message.

- vi The 5620 SAM server is stopped when the command displays the following status message:

```
Application Server is stopped
```

If the command displays a different message, wait 5 m and go back to step 1 v. Do not proceed to the next step until the server is stopped.

### Disable server daemon

- 2 Disable the 5620 SAM server startup daemon. This ensures that the 5620 SAM server does not automatically start in the event of a power disruption during the conversion.
  - i Enter the following at the CLI prompt to switch to the root user:
 

```
bash$ su - ↵
```
  - ii Enter the following at the CLI prompt to change to the /etc/rc3.d directory:
 

```
cd /etc/rc3.d ↵
```
  - iii Enter the following at the CLI prompt to disable the 5620 SAM server daemon by renaming it:
 

```
mv S975620SAMServerWrapper
inactive.S975620SAMServerWrapper ↵
```

The next section of the procedure describes the exporting of the 5620 SAM database to a file set.

### Export database

- 3 Perform the following steps to export the 5620 SAM database to a file set using the 5620 SAM database migration script.
  - i Log in to the database station as the Oracle management user.
  - ii Open a console window.
  - iii Enter the following at the CLI prompt:

```
bash$ path/install/config/samdb/Solaris_dbMigration.sh -e
database_export_directory ↵
```

where

*path* is the 5620 SAM database installation location, typically /opt/5620sam/samdb  
*database\_export\_directory* is the full path of the directory that is to contain the exported database file set



**Note 1** — To view the migration script usage instructions, specify the -h switch, as follows:

```
Solaris_dbMigration.sh -h ↵
```

**Note 2** — The passwords that you enter are not displayed.

- iv Specify the 5620 SAM database installation location at the following prompt; press Enter to accept the default:

```
Please enter the DB_INSTALL_BASE (installation_location):
```

where *installation\_location* is the default database installation directory

The following text is displayed:

```
Using ORACLE_SID = database_instance_name
```

Using ORACLE\_HOME = *Oracle\_installation\_directory*

- v Enter the SYS user password at the following prompt and press ↵:

Enter the password for the "sys" user (terminal echo is off):

The following prompt is displayed:

Accept value? [y/n/q] (y):

- vi Press ↵ if you are sure that the password is entered correctly. Otherwise, enter n ↵ and go back to step 3 v.

- vii Enter the 5620 SAM database username at the following prompt:

Enter the username for the SAM Database (*user\_name*):

where *user\_name* is the default 5620 SAM database username, typically samuser

- viii The following prompt is displayed if you enter a username other than the default:

Accept "*user\_name*" [y/n/q]? (y):

Press ↵ if you have entered the name correctly. Otherwise, enter n ↵ and go back to step 3 vii.

- ix Enter the database user password at the following prompt:

Enter the password for *user\_name* (terminal echo is off):

The following prompt is displayed:

Accept value? [y/n/q] (y):

- x Press ↵ if you are sure that the password is entered correctly. Otherwise, enter n ↵ and go back to step 3 ix.

- xi Create a database export encryption password and record it for use in the following steps and during the database import operation.



**Note —** The password can be of any length and use any characters.

- xii Enter the created password at the following prompt:

Enter the export encryption password (terminal echo is off):

- xiii Re-enter the password at the following prompt:

Confirm export encryption password (terminal echo is off):

- xiv If the passwords do not match, the script displays the following error message, and you must go back to step 3 xii:

ERROR: Passwords do NOT match, Please enter it again

- xv Press `↵` at the following prompt to confirm that the 5620 SAM server is stopped:

This tool will shutdown the db listener disconnecting any connections to the database.

Have the SAM servers been shutdown? [y/n/q] (y):

- xvi At the following prompt, specify how many CPUs are available for the export process:

To optimize the speed of the export this script will use as many CPUs as you allow it to.

How many CPUs are available for this export? (n):

where *n* is the number of CPUs that the script detects

- xvii Press `↵` at the following prompt to direct the script to estimate the amount of disk space required for the database export:

Do you want to perform an export size estimate first? [y/n/q] (y):

- xviii Press `↵` at the following prompt to proceed with the database export:

Proceed with the export? [y/n/q] (y):

The script exports the 5620 SAM database to a file set in the directory specified in step 3 iii.

### Stop database

- 4 Stop the 5620 SAM database application.
  - i Log in to the database station as a user with root or root-equivalent privileges.
  - ii Enter the following at the CLI prompt to change to the `/etc/rc3.d` directory:  

```
cd /etc/rc3.d ↵
```
  - iii Enter the following at the CLI prompt to stop the Oracle proxy daemon:  

```
./S965620SAMOracleProxyWrapper stop ↵
```
  - iv Enter the following at the CLI prompt to stop the 5620 SAM database daemon:  

```
./S95db5620sam stop ↵
```

Do not proceed until the command displays the following text string:

Done

### Install database

- 5 Perform steps 1 to 50 of Procedure 3-1 to install the 5620 SAM database software on the new database station.



**Note —** For the database installation, you must use the same usernames, passwords, database name, and database instance name specified for the existing database installation.

### Import database file set

- 6 Copy the exported data file set created in step 3 to the new database station.



**Note —** The directory to which you copy the file set must contain no other files.

- 7 Perform the following steps to import the exported 5620 SAM data file set using the 5620 SAM database migration script.

- i Log in to the primary database station as the Oracle management user.
- ii Open a console window.
- iii Enter the following at the CLI prompt:

```
bash$ path/install/config/samdb/Solaris_dbMigration.sh -i
database_import_directory ↵
```

where

*path* is the 5620 SAM database installation location, typically /opt/5620sam/samdb  
*database\_import\_directory* is the full path of the directory that contains the exported database file set



**Note 1 —** To view the migration script usage instructions, specify the -h switch, as follows:

```
Solaris_dbMigration.sh -h ↵
```

**Note 2 —** The passwords that you enter are not displayed.

- iv Specify the 5620 SAM database installation location at the following prompt; press Enter to accept the default:

Please enter the DB\_INSTALL\_BASE (*installation\_location*):

where *installation\_location* is the default database installation directory

The following text is displayed:

Using ORACLE\_SID = *database\_instance\_name*

Using ORACLE\_HOME = *Oracle\_installation\_directory*

- v Enter the SYS user password at the following prompt and press ↵:

Enter the password for the "sys" user (terminal echo is off):

The following prompt is displayed:

Accept value? [y/n/q] (y):

- vi Press ☐ if you are sure that the password is entered correctly. Otherwise, enter n ☐ and go back to step 7 v.

- vii Enter the 5620 SAM database username at the following prompt:

Enter the username for the SAM Database (user\_name):

where user\_name is the default 5620 SAM database username, typically samuser

- viii The following prompt is displayed if you enter a username other than the default:

Accept "user\_name" [y/n/q]? (y):

Press ☐ if you have entered the name correctly. Otherwise, enter n ☐ and go back to step 7 vii.

- ix Enter the database user password at the following prompt:

Enter the password for user\_name (terminal echo is off):

The following prompt is displayed:

Accept value? [y/n/q] (y):

- x Press ☐ if you are sure that the password is entered correctly. Otherwise, enter n ☐ and go back to step 7 ix.

- xi Enter the database export encryption password at the following prompt:

Enter the export encryption password (terminal echo is off):



**Note —** This password is the password recorded in step 3 xi.

The following prompt is displayed:

Accept value? [y/n/q] (y):

- xii Press ☐ if you are sure that the password is entered correctly. Otherwise, enter n ☐ and go back to step 7 xi.

- xiii At the following prompt, specify how many CPUs are available for the import process:

In order to optimize the speed of this import, this script needs to know how many CPUs are available on this machine and how many data files there are to import.

This machine appears to have n CPUs

Is this correct? [y/n/q] (y):

where *n* is the number of CPUs that the script detects

- xiv Press **↵** at the following prompt if the number of data files to import is correct:

There appears to be *n* data files to import

Is this correct? [y/n/q] (y):

where *n* is the number of data files found by the script

- xv Press **↵** at the following prompt to proceed with the database import:

Log of import command will be written to *log\_file*

Proceed with the import? [y/n/q] (y):

where *log\_file* is the name of a log file that the script creates

The script imports the 5620 SAM database from the directory specified in step 7 iii.

#### Install server

- 8 Perform steps 51 to 86 of Procedure 3-1 to install the 5620 SAM main server software on the new main server station.
- 

## 6.6 Redundant 5620 SAM platform migration procedures

This section describes the migration of a redundant 5620 SAM system from one type of Solaris platform to another.

Procedure 6-3 describes how to relocate a redundant 5620 SAM system.



**Note** — Command-line examples use the following to represent the Solaris CLI prompts:

- #—represents the prompt for a root or root-equivalent user
- bash\$—represents the prompt for the samadmin and Oracle management users

Do not type the # symbol or bash\$ when entering a command.



### Procedure 6-3 To relocate a redundant 5620 SAM system to a different platform

Perform this procedure to relocate a redundant 5620 SAM system on Solaris to a different platform type. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



**Note** — You require the following user privileges to perform this procedure:

on each main server station:

- root or root-equivalent
- samadmin

on each database station:

- root or root-equivalent
- Oracle management

#### Stop standby main server

- 1 Perform the following steps to stop the standby 5620 SAM main server application.

- i Log in to standby main server station as the samadmin user.
- ii Open a console window.
- iii Enter the following at the CLI prompt to change to the server binary directory:

```
bash$ cd path/nms/bin ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

- iv Enter the following at the CLI prompt to stop the 5620 SAM server software:

```
bash$./nmsserver.bash stop ↵
```

- v Enter the following at the CLI prompt to display the 5620 SAM server status:

```
bash$./nmsserver.bash appserver_status ↵
```

The command displays a status message.

- vi The 5620 SAM server is stopped when the command displays the following status message:

```
Application Server is stopped
```

If the command displays a different message, wait 5 m and go back to step 1 v. Do not proceed to the next step until the server is stopped.

### Disable standby main server daemon

- 2 Disable the standby 5620 SAM main server startup daemon. This ensures that the 5620 SAM server does not automatically start in the event of a power disruption during the migration.

- i Enter the following at the CLI prompt to switch to the root user:

```
bash$ su - ↵
```

- ii Enter the following at the CLI prompt to change to the /etc/rc3.d directory:

```
cd /etc/rc3.d ↵
```

- iii Enter the following at the CLI prompt to disable the 5620 SAM server daemon by renaming it:

```
mv S975620SAMServerWrapper
inactive.S975620SAMServerWrapper ↵
```

The next section of the procedure describes the stopping of the primary 5620 SAM main server.

### Stop primary main server

- 3 Perform the following steps to stop the primary 5620 SAM main server application.

- i Log in to the primary main server station as the samadmin user.

- ii Open a console window.

- iii Enter the following at the CLI prompt to change to the server binary directory:

```
bash$ cd path/nms/bin ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

- iv Enter the following at the CLI prompt to stop the 5620 SAM server software:

```
bash$./nmsserver.bash stop ↵
```

- v Enter the following at the CLI prompt to display the 5620 SAM server status:

```
bash$./nmsserver.bash appserver_status ↵
```

The command displays a status message.

- vi The 5620 SAM server is stopped when the command displays the following status message:

```
Application Server is stopped
```

If the command displays a different message, wait 5 m and go back to step 3 v. Do not proceed to the next step until the server is stopped.

### Disable primary main server daemon

- 4 Disable the primary 5620 SAM main server startup daemon. This ensures that the 5620 SAM server does not automatically start in the event of a power disruption during the migration.
  - i Enter the following at the CLI prompt to switch to the root user:  

```
bash$ su - ↵
```
  - ii Enter the following at the CLI prompt to change to the /etc/rc3.d directory:  

```
cd /etc/rc3.d ↵
```
  - iii Enter the following at the CLI prompt to disable the 5620 SAM server daemon by renaming it:  

```
mv S975620SAMServerWrapper
inactive.S975620SAMServerWrapper ↵
```

The next section of the procedure describes the stopping of the standby 5620 SAM database.

### Stop standby database

- 5 Stop the standby database application.
  - i Log in to the standby database station as a user with root or root-equivalent privileges.
  - ii Open a console window.
  - iii Enter the following at the CLI prompt to change to the /etc/rc3.d directory:  

```
cd /etc/rc3.d ↵
```
  - iv Enter the following at the CLI prompt to stop the Oracle proxy daemon:  

```
./S965620SAMOracleProxyWrapper stop ↵
```
  - v Enter the following at the CLI prompt to stop the 5620 SAM database daemon:  

```
./S95db5620sam stop ↵
```

Do not proceed until the command displays the following text string:

Done

### Export database

- 6 Perform the following steps to export the primary 5620 SAM database to a file set using the 5620 SAM database migration script.
  - i Log in to the primary database station as the Oracle management user.
  - ii Open a console window.

- iii Enter the following at the CLI prompt:

```
bash$ path/install/config/samdb/Solaris_dbMigration.sh -e
database_export_directory ↵
```

where

*path* is the 5620 SAM database installation location, typically /opt/5620sam/samdb  
*database\_export\_directory* is the full path of the directory that is to contain the exported database file set



**Note 1** — To view the migration script usage instructions, specify the -h switch, as follows:

```
Solaris_dbMigration.sh -h ↵
```

**Note 2** — The passwords that you enter are not displayed.

- iv Specify the 5620 SAM database installation location at the following prompt; press Enter to accept the default:

```
Please enter the DB_INSTALL_BASE (installation_location):
```

where *installation\_location* is the default database installation directory

The following text is displayed:

```
Using ORACLE_SID = database_instance_name
```

```
Using ORACLE_HOME = Oracle_installation_directory
```

- v Enter the SYS user password at the following prompt and press ↵:

```
Enter the password for the "sys" user (terminal echo is off):
```

The following prompt is displayed:

```
Accept value? [y/n/q] (y):
```

- vi Press ↵ if you are sure that the password is entered correctly. Otherwise, enter n ↵ and go back to step 6 v.

- vii Enter the 5620 SAM database username at the following prompt:

```
Enter the username for the SAM Database (user_name):
```

where *user\_name* is the default 5620 SAM database username, typically samuser

- viii The following prompt is displayed if you enter a username other than the default:

```
Accept "user_name" [y/n/q]? (y):
```

Press ↵ if you have entered the name correctly. Otherwise, enter n ↵ and go back to step 6 vii.

- ix Enter the database user password at the following prompt:

```
Enter the password for user_name (terminal echo is off):
```

The following prompt is displayed:

Accept value? [y/n/q] (y):

- x Press ☐ if you are sure that the password is entered correctly. Otherwise, enter n ☐ and go back to step 6 ix.
- xi Create a database export encryption password and record it for use in the following steps and during the database import operation.



**Note —** The password can be of any length and use any characters.

- xii Enter the created password at the following prompt:

Enter the export encryption password (terminal echo is off):

- xiii Re-enter the password at the following prompt:

Confirm export encryption password (terminal echo is off):

- xiv If the passwords do not match, the script displays the following error message, and you must go back to step 6 xii:

ERROR: Passwords do NOT match, Please enter it again

- xv Press ☐ at the following prompt to confirm that the 5620 SAM server is stopped:

This tool will shutdown the db listener disconnecting any connections to the database.

Have the SAM servers been shutdown? [y/n/q] (y):

- xvi At the following prompt, specify how many CPUs are available for the export process:

To optimize the speed of the export this script will use as many CPUs as you allow it to.

How many CPUs are available for this export? (n):

where *n* is the number of CPUs that the script detects

- xvii Press ☐ at the following prompt to direct the script to estimate the amount of disk space required for the database export:

Do you want to perform an export size estimate first? [y/n/q] (y):

- xviii Press ☐ at the following prompt to proceed with the database export:

Proceed with the export? [y/n/q] (y):

The script exports the 5620 SAM database to a file set in the directory specified in step 6 iii.

### Stop primary database

- 7 Stop the 5620 SAM database application on the primary database station.

- i Enter the following at the CLI prompt on the primary database station to switch to the root user:

```
bash$ su -
```

- ii Enter the following at the CLI prompt to stop the Oracle proxy daemon:

```
/etc/rc3.d/S965620SAMOracleProxyWrapper stop ↵
```

- iii Enter the following at the CLI prompt to stop the 5620 SAM database daemon:

```
./S95db5620sam stop ↵
```

Do not proceed until the command displays the following text string:

Done

### Install primary database

- 8 Perform steps 1 to 50 of Procedure 3-6 to install the 5620 SAM database software on the new primary database station.



**Note —** For the new primary database installation, you must use the same usernames, passwords, database name, and database instance name specified for the existing primary database installation.

### Import database file set to primary database

- 9 Copy the exported data file set created in step 6 to the new primary database station.



**Note —** The directory to which you copy the file set must contain no other files.

- 10 Perform the following steps to import the primary 5620 SAM data file set using the 5620 SAM database migration script.

- i Log in to the primary database station as the Oracle management user.
  - ii Open a console window.

- iii Enter the following at the CLI prompt:

```
bash$ path/install/config/samdb/Solaris_dbMigration.sh -i
database_import_directory ↵
```

where

*path* is the 5620 SAM database installation location, typically /opt/5620sam/samdb  
*database\_import\_directory* is the full path of the directory that contains the exported database file set



**Note 1** — To view the migration script usage instructions, specify the -h switch, as follows:

```
Solaris_dbMigration.sh -h ↵
```

**Note 2** — The passwords that you enter are not displayed.

- iv Specify the 5620 SAM database installation location at the following prompt; press Enter to accept the default:

```
Please enter the DB_INSTALL_BASE (installation_location):
```

where *installation\_location* is the default database installation directory

The following text is displayed:

```
Using ORACLE_SID = database_instance_name
```

```
Using ORACLE_HOME = Oracle_installation_directory
```

- v Enter the SYS user password at the following prompt and press ↵:

```
Enter the password for the "sys" user (terminal echo is off):
```

The following prompt is displayed:

```
Accept value? [y/n/q] (y):
```

- vi Press ↵ if you are sure that the password is entered correctly. Otherwise, enter n ↵ and go back to step 10 v.

- vii Enter the 5620 SAM database username at the following prompt:

```
Enter the username for the SAM Database (user_name):
```

where *user\_name* is the default 5620 SAM database username, typically samuser

- viii The following prompt is displayed if you enter a username other than the default:

```
Accept "user_name" [y/n/q]? (y):
```

Press ↵ if you have entered the name correctly. Otherwise, enter n ↵ and go back to step 10 vii.

- ix Enter the database user password at the following prompt:

```
Enter the password for user_name (terminal echo is off):
```

The following prompt is displayed:

Accept value? [y/n/q] (y):

- x Press ☐ if you are sure that the password is entered correctly. Otherwise, enter n ☐ and go back to step 10 ix.

- xi Enter the export password at the following prompt:

Enter the export encryption password (terminal echo is off):



**Note** — This password is the password recorded in step 6 xi.

The following prompt is displayed:

Accept value? [y/n/q] (y):

- xii Press ☐ if you are sure that the password is entered correctly. Otherwise, enter n ☐ and go back to step 10 xi.

- xiii At the following prompt, specify how many CPUs are available for the import process:

In order to optimize the speed of this import, this script needs to know how many CPUs are available on this machine and how many data files there are to import.

This machine appears to have *n* CPUs

Is this correct? [y/n/q] (y):

where *n* is the number of CPUs that the script detects

- xiv Press ☐ at the following prompt if the number of data files to import is correct:

There appears to be *n* data files to import

Is this correct? [y/n/q] (y):

where *n* is the number of data files found by the script

- xv Press ☐ at the following prompt to proceed with the database import:

Log of import command will be written to *log\_file*

Proceed with the import? [y/n/q] (y):

where *log\_file* is the name of a log file that the script creates

The script imports the 5620 SAM database from the directory specified in step 10 iii.



### Install standby database

- 11 Perform steps 51 to 91 of Procedure 3-6 to install the 5620 SAM database software on the new standby database station.



**Note —** For the new standby database installation, you must use the same usernames, passwords, database name, and database instance name specified for the existing standby database installation.

### Install primary main server

- 12 Perform steps 92 to 135 of Procedure 3-6 to install the 5620 SAM main server software on the new primary main server station.

### Install standby main server

- 13 Perform steps 140 to 180 of Procedure 3-6 to install the 5620 SAM main server software on the new standby main server station.
-



## ***7 — 5620 SAM uninstallation on Solaris***

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- 7.2 5620 SAM uninstallation on Solaris procedures list 7-2
- 7.3 Workflow for 5620 SAM uninstallation on Solaris 7-2
- 7.4 5620 SAM uninstallation on Solaris procedures 7-2

## 7.1 5620 SAM uninstallation on Solaris overview

This chapter describes general information related to uninstalling the 5620 SAM software components on Solaris.

5620 SAM system uninstallation has the following requirements.

- No 5620 SAM software in the 5620 SAM system is running when the uninstallation begins.
- The order in which the 5620 SAM components are uninstalled is the reverse of the order in which they are installed.

## 7.2 5620 SAM uninstallation on Solaris procedures list

Table 7-1 lists the procedures required to perform 5620 SAM software uninstallation activities on a Solaris platform.

Table 7-1 5620 SAM uninstallation on Solaris procedures list

| Procedure                                                                                               | Purpose                                                                       |
|---------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| <a href="#">To uninstall the 5620 SAM single-user client software on Solaris using a web browser</a>    | Remove the 5620 SAM client software from a Solaris station.                   |
| <a href="#">To uninstall the 5620 SAM client software on Solaris using the local client uninstaller</a> | Remove the 5620 SAM client software from a Solaris station.                   |
| <a href="#">To uninstall the 5620 SAM main server software on Solaris</a>                               | Remove the 5620 SAM main or auxiliary server software from a Solaris station. |
| <a href="#">To uninstall the 5620 SAM database software on Solaris</a>                                  | Remove the 5620 SAM database software from a Solaris station.                 |

## 7.3 Workflow for 5620 SAM uninstallation on Solaris

The following is the sequence of high-level actions required to uninstall the 5620 SAM client, server and database components that comprise a 5620 SAM system on Solaris.

- 1 Uninstall the client. See Procedure [7-1](#) or [7-2](#) for more information.
- 2 Uninstall the auxiliary servers, if required. See Procedure [7-3](#) for more information.
- 3 Uninstall the main server. See Procedure [7-4](#) for more information.
- 4 Uninstall the database. See Procedure [7-5](#) for more information.

## 7.4 5620 SAM uninstallation on Solaris procedures

The following procedures describe how to remove the software components of a 5620 SAM system on a Solaris platform.

Procedures 7-1 and 7-2 describe how to uninstall the 5620 SAM client software on a Solaris station.

Procedure 7-3 describes how to uninstall the 5620 SAM auxiliary server software on a Solaris station.

Procedure 7-4 describes how to uninstall the 5620 SAM main server software on a Solaris station.

Procedure 7-5 describes how to uninstall the 5620 SAM database on a Solaris station.

### Procedure 7-1 To uninstall the 5620 SAM single-user client software on Solaris using a web browser

---

Perform this procedure to remove the 5620 SAM single-user client software from a Solaris station using a web browser.



**Note** — You require one of the following sets of user privileges on the client station to perform this procedure:

- the privileges of the user that installed the client software
- root or root-equivalent

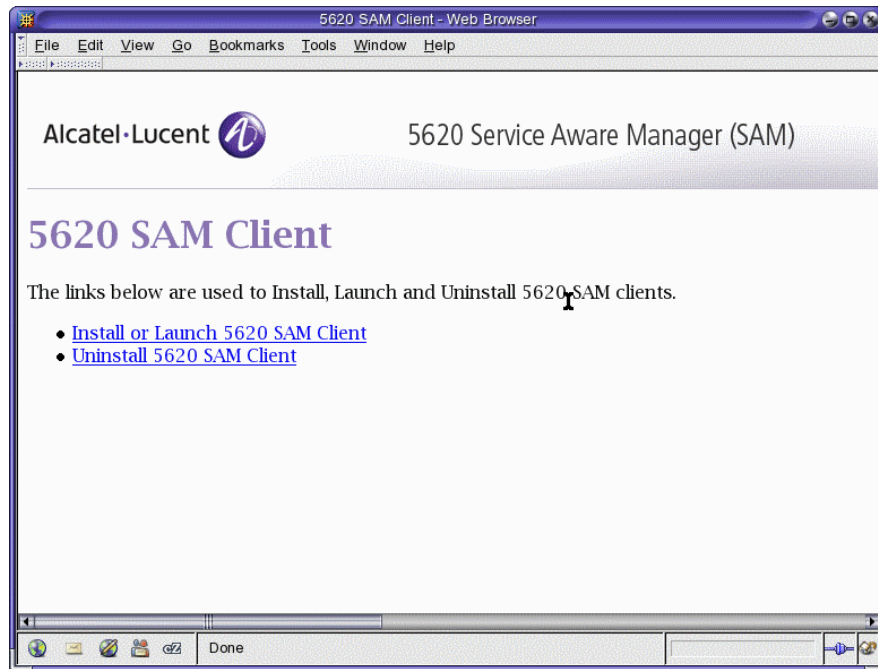
- 1 Stop the 5620 SAM client. From the 5620 SAM GUI main menu, choose Application→Exit.
- 2 Log in to the 5620 SAM client station as the same user that installed the 5620 SAM client software, or as a root-equivalent user.
- 3 Use a web browser on the client station to open the following page on the 5620 SAM main server:

<http://server:8085/client>

where *server* is the IP address or hostname of the 5620 SAM main server

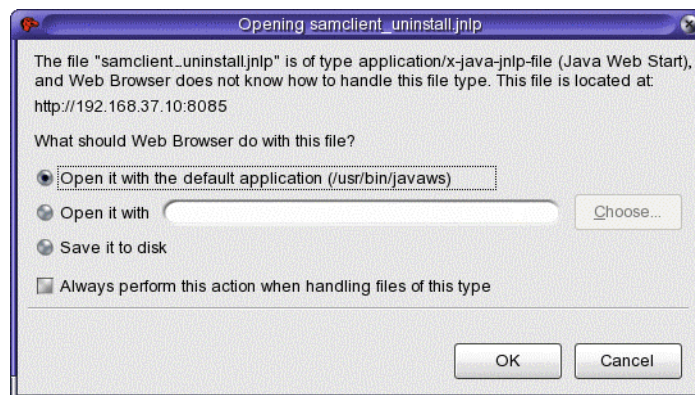
The page shown in Figure 7-1 is displayed.

Figure 7-1 5620 SAM client page



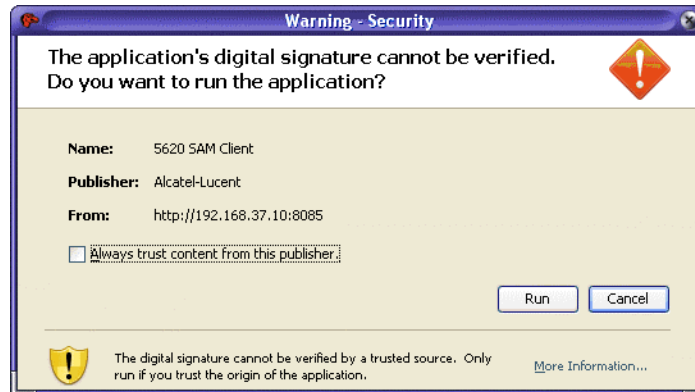
- 4 Click on the "Uninstall 5620 SAM Client" link. The form shown in Figure 7-2 is displayed. Ensure that "Open with" is selected, then click on the OK button.

Figure 7-2 Opening samclient\_uninstall.jnlp



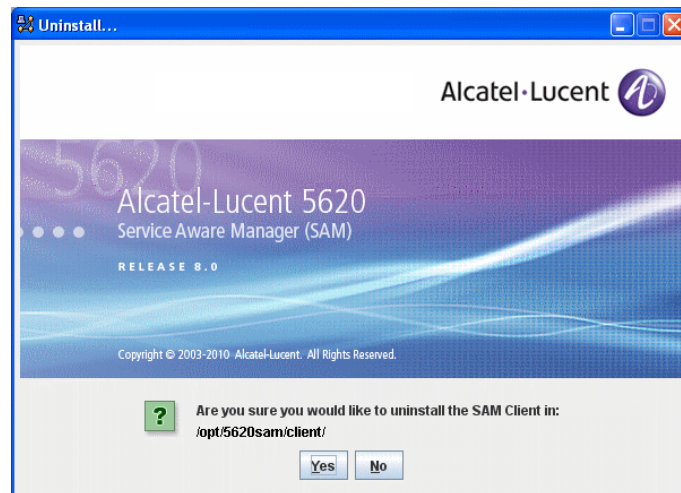
- 5 If a security warning like the one shown in Figure 7-3 is displayed, click on the Run button.

Figure 7-3 Warning - Security



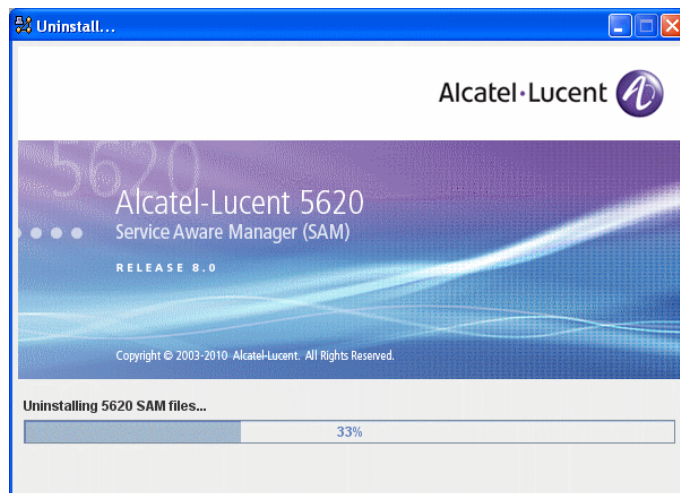
- 6 The client uninstaller opens, as shown in Figure 7-4. Click on the Yes button to begin the client uninstallation.

Figure 7-4 Uninstall...



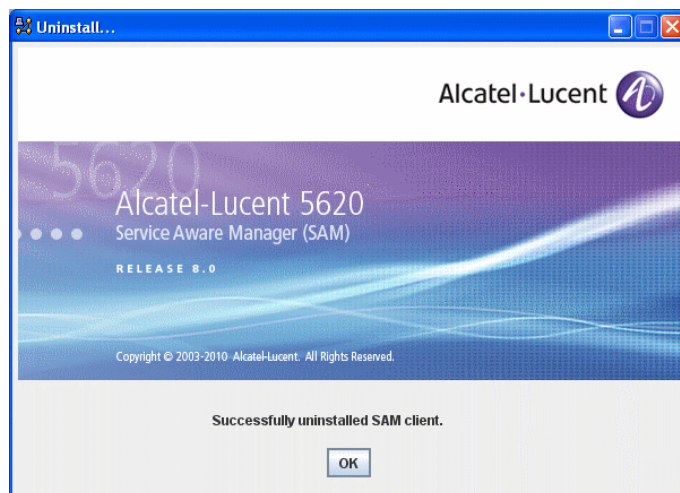
The panel Figure 7-5 opens. The panel displays the uninstallation progress.

Figure 7-5 Uninstall...



- 7 The client uninstallation is complete when the panel in Figure 7-6 is displayed. Click on the OK button to close the uninstaller.

Figure 7-6 Uninstall...





## Procedure 7-2 To uninstall the 5620 SAM client software on Solaris using the local client uninstaller

Perform this procedure to remove the 5620 SAM client software from a Solaris station using the uninstallation utility on the client station.



**Note** — You require one of the following sets of user privileges on the client station to perform this procedure:

- the privileges of the user that installed the client software
- root or root-equivalent

- 1 Stop the 5620 SAM client. From the 5620 SAM GUI main menu, choose Application→Exit.
- 2 Log in to the 5620 SAM client station as the same user that installed the 5620 SAM client software, or as a root-equivalent user.
- 3 Open a console window.



**Note** — Ensure that the current working directory is not a directory below the 5620 SAM client installation directory, for example, below /opt/5620sam/client.

- 4 Enter the following at the CLI prompt to open the 5620 SAM client uninstaller:

```
path/Uninstaller/Uninstall_5620_SAM_Client ↵
```

where *path* is the 5620 SAM client installation location, typically /opt/5620sam/client

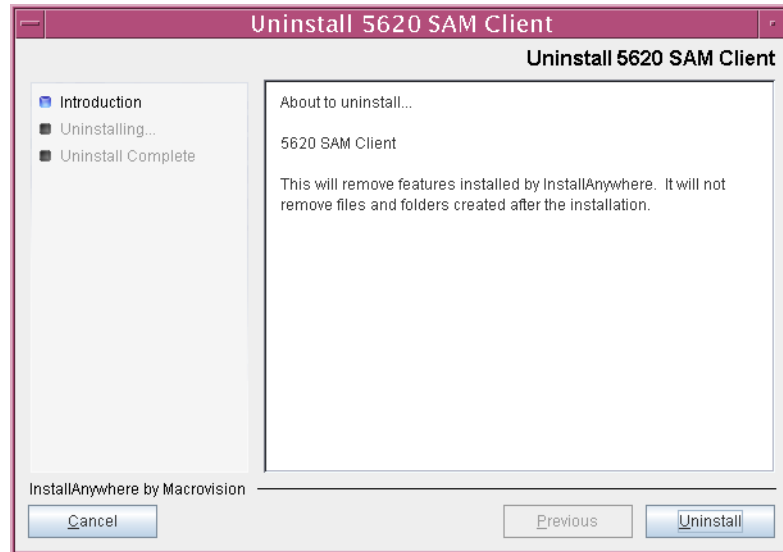
The splash screen shown in Figure 7-7 opens.

Figure 7-7 5620 SAM Uninstaller



- 5 The 5620 SAM client uninstaller opens, as shown in Figure 7-8. The left pane indicates uninstallation progress. The right pane indicates the operations that are to take place. Click on the Uninstall button to begin the uninstallation.

Figure 7-8 Uninstall 5620 SAM Client



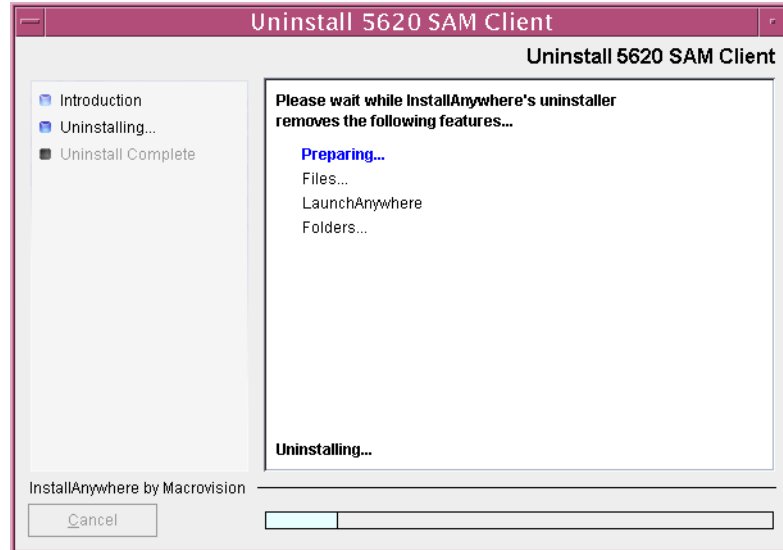
- 6 As shown in Figure 7-9, a warning appears. Ensure that the conditions are true. Click on the “Continue with the uninstall process” button to begin the uninstallation.

Figure 7-9 Warning



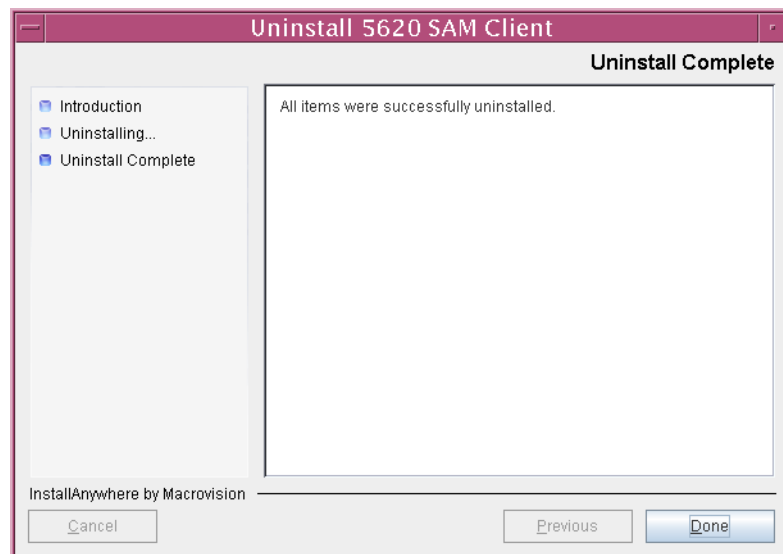
The uninstaller begins to remove 5620 SAM client files and directories, as shown in Figure 7-10.

Figure 7-10 Uninstall 5620 SAM Client



- 7 When the client uninstallation is complete, as shown in Figure 7-11, click on the Done button to close the client uninstaller.

Figure 7-11 Uninstall Complete



### Procedure 7-3 To uninstall the 5620 SAM auxiliary server software on Solaris

---

Perform this procedure to remove the 5620 SAM auxiliary server software from a Solaris station.



**Note** — You require the following user privileges on the auxiliary server station to perform this procedure:

- root or root-equivalent
- samadmin

#### Stop auxiliary server application

- 1 Perform the following steps to stop the 5620 SAM server application on the auxiliary server station.

- i Log in to the auxiliary server station as the samadmin user.
- ii Open a console window.
- iii Enter the following at the CLI prompt to change to the server binary directory:

```
cd path/nms/bin ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/auxserver

- iv Enter the following at the CLI prompt to stop the 5620 SAM server software:

```
./auxnmsserver.bash stop ↵
```

- v Enter the following at the CLI prompt to display the 5620 SAM server status:

```
./auxnmsserver.bash appserver_status ↵
```

The command displays a status message.

- vi The server is stopped when the command displays the following status message:

```
Auxiliary Server is stopped
```

If the command displays a different message, wait 5 m and repeat step 1 v. Do not proceed to the next step until the server is stopped.

#### Uninstall server

- 2 Log in to the 5620 SAM auxiliary server station as a user with root or root-equivalent privileges.
- 3 Open a console window.

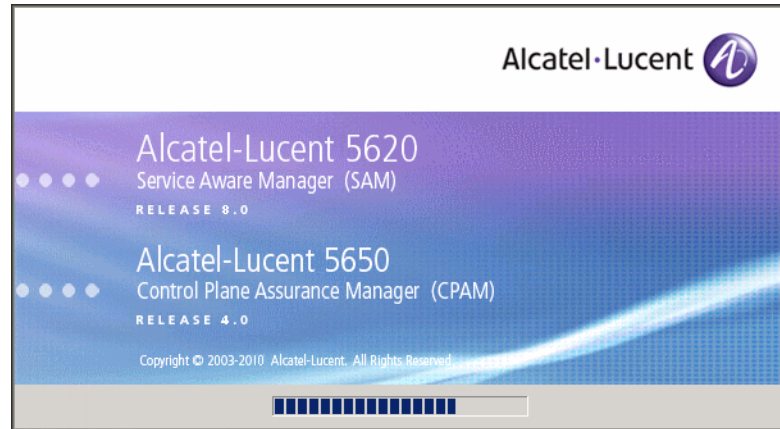
- 4 Enter the following at the CLI prompt to open the 5620 SAM server uninstaller:

```
path/Uninstaller/Uninstall_Server_Auxiliary ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/auxserver

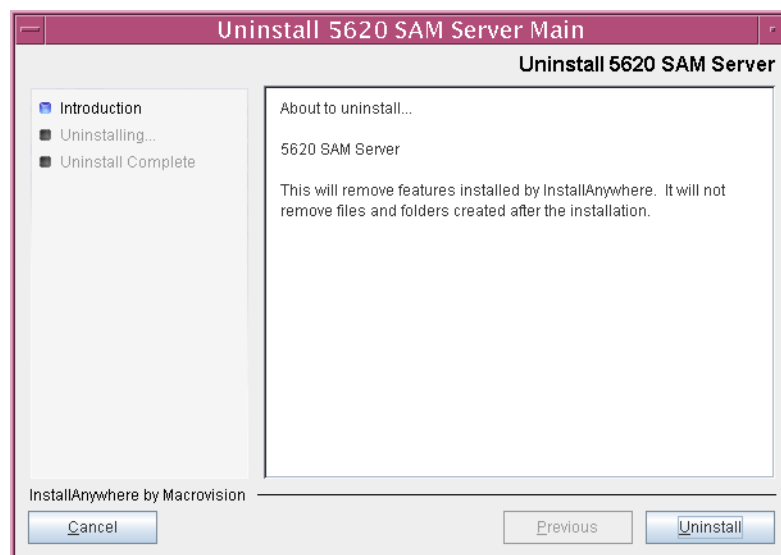
The splash screen shown in Figure 7-17 opens.

Figure 7-12 5620 SAM Uninstaller



- 5 The 5620 SAM server uninstaller opens, as shown in Figure 7-18. The left pane indicates uninstallation progress. The right pane indicates the operations that are to take place. Click on the Uninstall button to begin the uninstallation.

Figure 7-13 Uninstall 5620 SAM Server



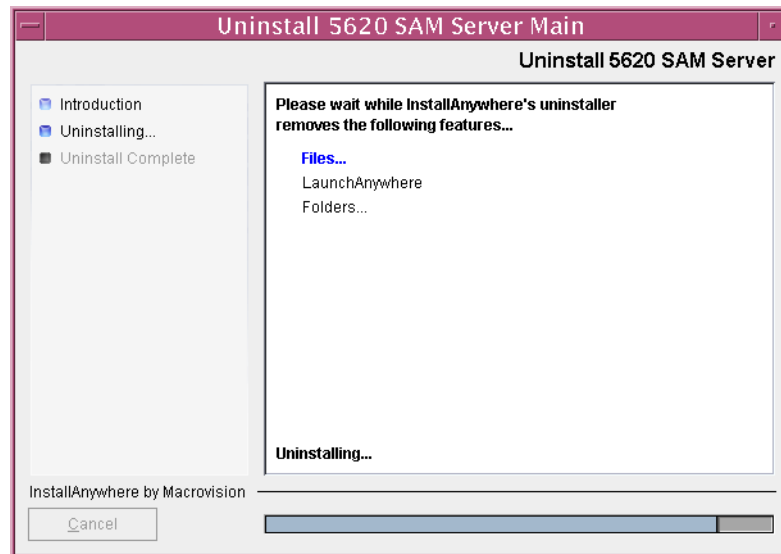
- 6 Read the warning shown in Figure 7-19. Click on the “Continue with the uninstall process” button to begin the uninstallation.

Figure 7-14 Warning



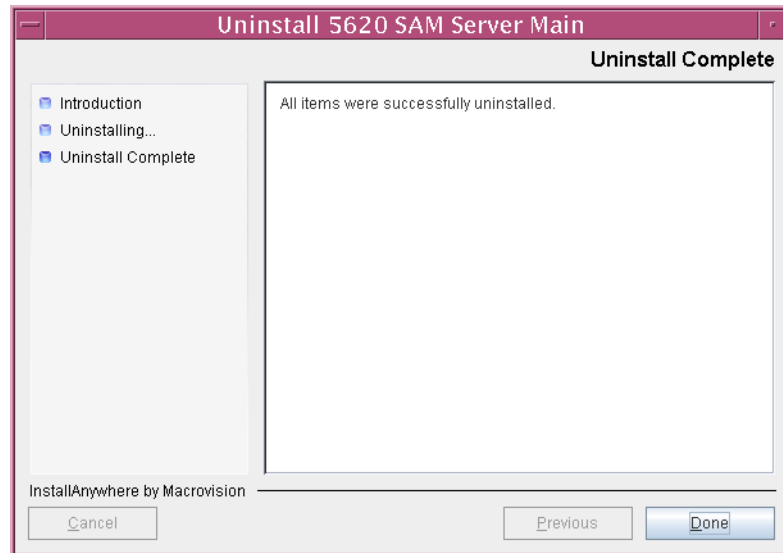
The uninstaller begins to remove 5620 SAM server files and directories, as shown in Figure 7-20.

Figure 7-15 Uninstall 5620 SAM Server



- 7 When the server uninstallation is complete, as shown in Figure 7-21, click on the Done button to close the server uninstaller.

Figure 7-16 Uninstall Complete



- 8 Enter the following at the CLI prompt to reboot the server station:  

```
bash$ shutdown -y -i6 -g0 ↵
```

 The station reboots.
- 9 Remove any files and directories that remain in the server installation directory.

#### Procedure 7-4 To uninstall the 5620 SAM main server software on Solaris

Perform this procedure to remove the 5620 SAM main server software from a Solaris station.



**Caution** — This procedure involves stopping the 5620 SAM server and database software. Ensure that you perform this procedure only during a scheduled maintenance period.



**Note** — You require the following user privileges to perform this procedure:

on each main server station:

- root or root-equivalent
- samadmin

on each database station:

- root or root-equivalent
- Oracle management

### Stop server and database applications

1 Perform the following steps to stop the 5620 SAM main server application.

- Log in to the main server station as the samadmin user.
- Open a console window.
- Enter the following at the CLI prompt to change to the server binary directory:

```
cd path/nms/bin ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

- Enter the following at the CLI prompt to stop the 5620 SAM server software:

```
./nmserver.bash stop ↵
```

- Enter the following at the CLI prompt to display the 5620 SAM server status:

```
./nmserver.bash appserver_status ↵
```

The command displays a status message.

- The 5620 SAM server is stopped when the command displays the following status message:

```
Application Server is stopped
```

If the command displays a different message, wait 5 m and repeat step 1 v. Do not proceed to the next step until the server is stopped.

2 Stop the 5620 SAM database application.

- Log in to the database station as a user with root or root-equivalent privileges.
- Open a console window.
- Enter the following at the CLI prompt to change to the /etc/rc3.d directory:

```
cd /etc/rc3.d ↵
```



- iv Enter the following at the CLI prompt to stop the Oracle proxy daemon:  

```
./S965620SAMOracleProxyWrapper stop ↵
```
- v Enter the following at the CLI prompt to stop the 5620 SAM database daemon:  

```
./S95db5620sam stop ↵
```
- vi Enter the following at the CLI prompt to verify that the 5620 SAM database is stopped:  

```
ps -ef | grep oracle ↵
```

The command displays a list of processes that contain the term “oracle”.



**Note** — One of the list entries is the “grep oracle” command from this step. Disregard the “grep oracle” entry, as it is not an Oracle process.

- vii If the command displays lines of text other than “grep oracle”, the 5620 SAM database is not stopped. Repeat step 2 vi.

Do not proceed until the command displays only the single “grep oracle” entry.

The next phase involves the uninstallation of the 5620 SAM server software.

### Uninstall server

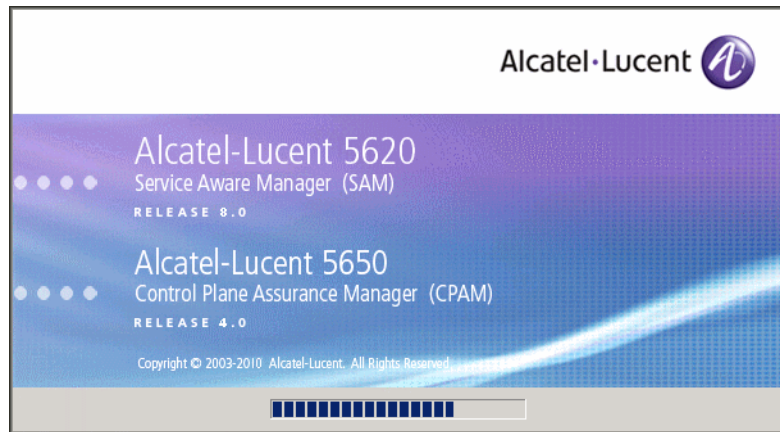
- 3 Log in to the 5620 SAM main server station as a user with root or root-equivalent privileges.
- 4 Open a console window.
- 5 Enter the following at the CLI prompt to open the 5620 SAM server uninstaller:

```
path/Uninstaller/Uninstall_Server_Main ↵
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

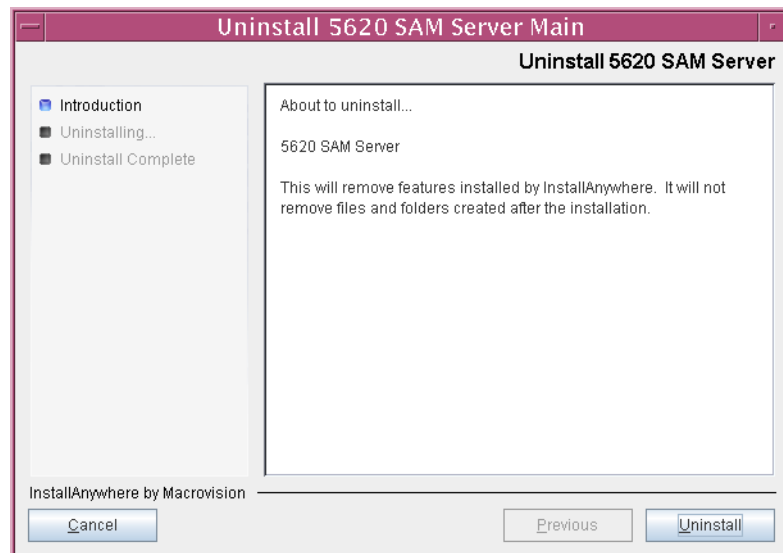
The splash screen shown in Figure 7-17 opens.

Figure 7-17 5620 SAM Uninstaller



- 6 The 5620 SAM server uninstaller opens, as shown in Figure 7-18. The left pane indicates uninstallation progress. The right pane indicates the operations that are to take place. Click on the Uninstall button to begin the uninstallation.

Figure 7-18 Uninstall 5620 SAM Server



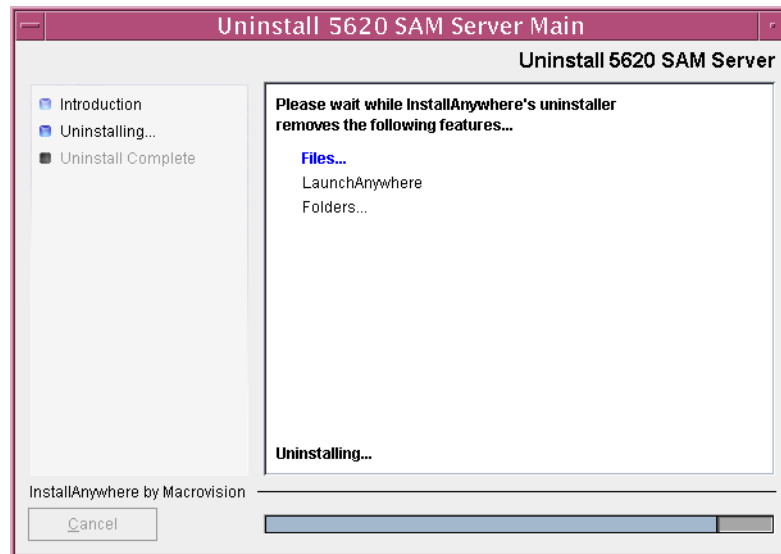
- 7 Read the warning shown in Figure 7-19. Click on the “Continue with the uninstall process” button to begin the uninstallation.

Figure 7-19 Warning



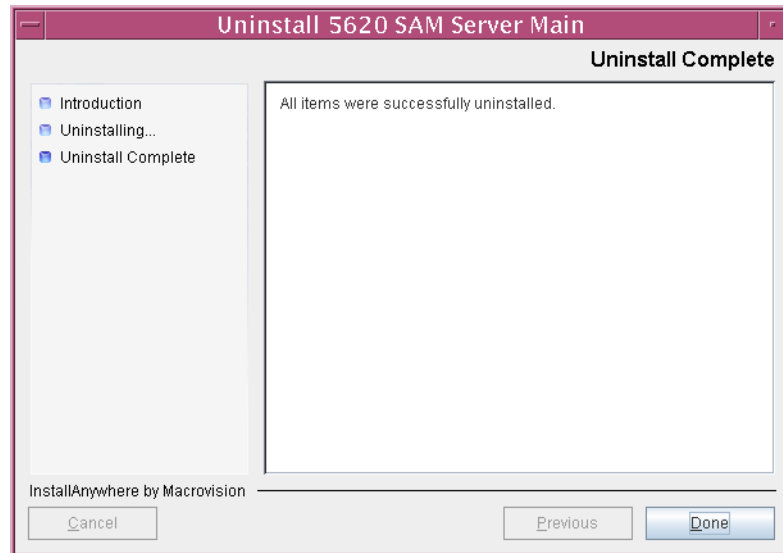
The uninstaller begins to remove 5620 SAM server files and directories, as shown in Figure 7-20.

Figure 7-20 Uninstall 5620 SAM Server



- 8 When the server uninstallation is complete, as shown in Figure 7-21, click on the Done button to close the server uninstaller.

Figure 7-21 Uninstall Complete



- 9 Enter the following at the CLI prompt to reboot the server station:  

```
bash$ shutdown -y -i6 -g0 ↵
```

The station reboots.
  - 10 Remove any files and directories that remain in the server installation directory.
- 

### Procedure 7-5 To uninstall the 5620 SAM database software on Solaris

---

Perform this procedure to remove the 5620 SAM database component from a Solaris station.



**Note** — You require the following user privileges on the database station to perform this procedure:

- root or root-equivalent
- Oracle management

- 1 Log in to the database station as a user with root or root-equivalent privileges.
- 2 Open a console window.

- 3 Enter the following at the CLI prompt to switch to the Oracle management user created by the pre-installation script:

```
su - Oracle_management_user_name ↵
```

where *Oracle\_management\_user\_name* is the name of the UNIX account with Oracle management privileges, typically oracle

- 4 Enter the following at the CLI prompt to open the 5620 SAM database uninstaller:

```
bash$
path/install/Uninstaller/Uninstall_5620_SAM_Database_Configurator ↵
```

where *path* is the 5620 SAM database installation location, typically /opt/5620sam/samdb

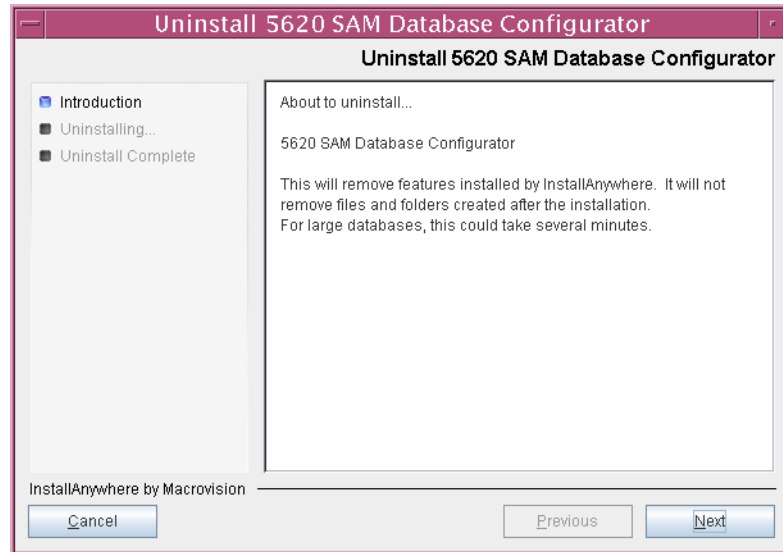
The splash screen shown in Figure 7-22 opens.

Figure 7-22 5620 SAM Uninstaller



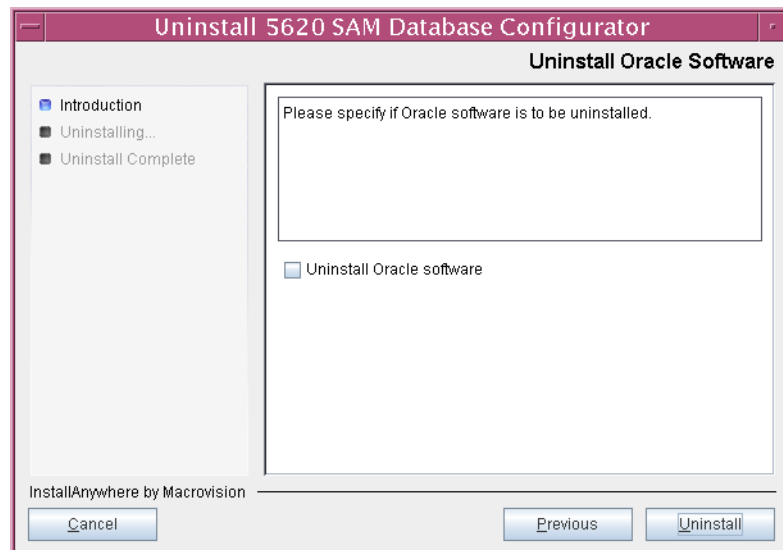
- 5 The 5620 SAM database uninstaller opens, as shown in Figure 7-23. The left pane indicates uninstallation progress. The right pane indicates the operations that are to take place. Click on the Next button.

Figure 7-23 Uninstall 5620 SAM Database Configurator



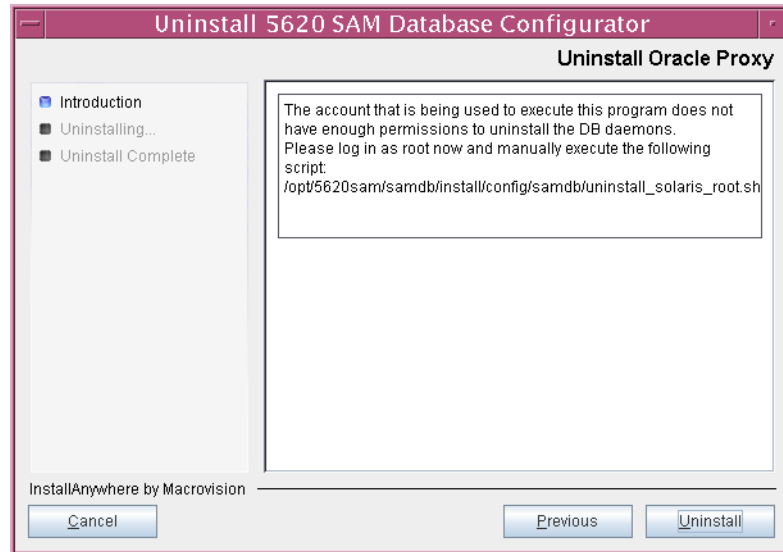
- 6 If required, select the “Uninstall Oracle software” parameter shown in Figure 7-24 to remove the Oracle software from the database station. Click on the Uninstall button to begin the uninstallation.

Figure 7-24 Uninstall Oracle Software



- 7 As shown in Figure 7-25, you are prompted to run a script that enables the uninstallation of the database daemons. Open a separate console window and run the script as the root user.

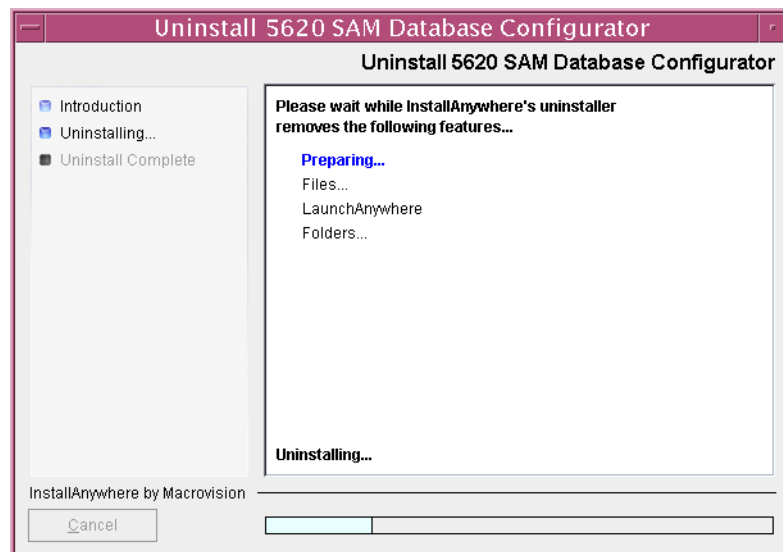
Figure 7-25 Uninstall Oracle Proxy



- 8 When the script execution is complete, click on the OK button.

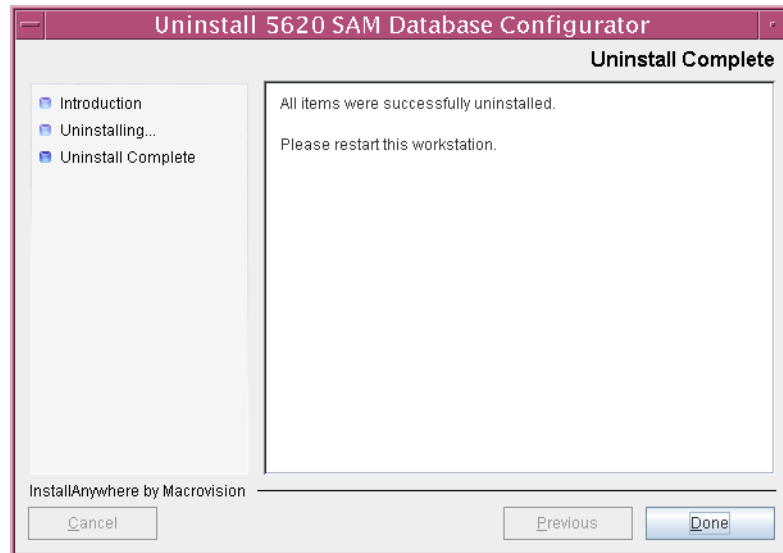
The uninstaller begins to remove 5620 SAM database files and directories, as shown in Figure 7-26.

Figure 7-26 Uninstall 5620 SAM Database Configurator



- 9 When database uninstallation is complete, as shown in Figure 7-27, click on the Done button to close the database uninstaller.

Figure 7-27 Uninstall Complete



- 10 Enter the following at the CLI prompt to reboot the database station:  

```
bash$ shutdown -y -i6 -g0 ↵
```

The station reboots.
  - 11 Remove any files and directories that remain in the Oracle installation directory and the database directories.
-



# *5650 CPAM for Solaris*

---

## 8 — 5650 CPAM installation, upgrade, and uninstallation



## ***8 — 5650 CPAM installation, upgrade, and uninstallation***

---

- 8.1 5650 CPAM installation, upgrade, and uninstallation  
overview 8-2
- 8.2 5650 CPAM installation, upgrade, and uninstallation procedures  
list 8-2
- 8.3 5650 CPAM server installation 8-3
- 8.4 5650 CPAM server upgrade 8-38
- 8.5 5650 CPAM server uninstallation 8-78

## 8.1 5650 CPAM installation, upgrade, and uninstallation overview

Before you attempt to perform a procedure in this chapter, ensure that you understand and comply with the relevant requirements, considerations, and precautions described in chapter 1 of this document and in the *5650 CPAM User Guide*.



**Caution** — Alcatel-Lucent supports 5650 CPAM software configuration only under the conditions described in chapter 1.



**Note** — The platform requirements for a 5650 CPAM server are the same as the requirements for a 5620 SAM server. Use the 5620 SAM server guidelines for Solaris in chapter 1 as the 5650 CPAM guidelines.

## 8.2 5650 CPAM installation, upgrade, and uninstallation procedures list

Table 8-1 lists the procedures required to perform 5650 CPAM software installation, upgrade and uninstallation activities on a Solaris platform.

Table 8-1 5650 CPAM installation, upgrade, and uninstallation procedures list

| Procedure                                                | Purpose                                                           |
|----------------------------------------------------------|-------------------------------------------------------------------|
| <a href="#">To install a standalone 5650 CPAM system</a> | Install the 5650 CPAM server software in a standalone deployment. |
| <a href="#">To install a redundant 5650 CPAM system</a>  | Install the 5650 CPAM server software in a redundant deployment.  |
| <a href="#">To upgrade a standalone 5650 CPAM system</a> | Upgrade the 5650 CPAM server software in a standalone deployment. |
| <a href="#">To upgrade a redundant 5650 CPAM system</a>  | Upgrade the 5650 CPAM server software in a redundant deployment.  |
| <a href="#">To uninstall the 5650 CPAM software</a>      | Remove the 5650 CPAM server software from a Solaris station.      |

## 8.3 5650 CPAM server installation

This section describes how to install the 5650 CPAM software. A 5650 CPAM software installation is typically performed as part of a 5620 SAM main server software installation.



**Note —** The 5650 CPAM software is automatically installed when you install the 5620 SAM main server software, but is activated only after a valid 5650 CPAM license key is added to the 5650 CPAM configuration.

The procedures in this section are for use only in the following situations:

- when the 5650 CPAM server is to be used without a 5620 SAM main server
- when the 5650 CPAM server is to be used with a 5620 SAM main server that is installed on a station other than the 5650 CPAM station



**Note —** Command-line examples in the following procedures use the # symbol to represent the Solaris CLI prompt. Do not type the leading # symbol when you enter a command.

---

### Procedure 8-1 To install a standalone 5650 CPAM system

---

Perform this procedure to install the 5650 CPAM software on a Solaris station in a standalone deployment. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



**Note —** You require root or root-equivalent user privileges on the 5650 CPAM station to perform this procedure.

- 1 Log in to the station that is to be the 5650 CPAM station as a user with root or root-equivalent privileges.
- 2 Open a console window.
- 3 Place the 5620 SAM | 5650 CPAM software DVD-ROM in a DVD-ROM drive.
- 4 Navigate to the DVD-ROM drive.

5 Perform one of the following to open the 5620 SAM | 5650 CPAM server installer.

a On a Sun SPARC station:

i Enter the following at the CLI prompt:

```
cd Solaris ↵
```

ii Enter the following at the CLI prompt:

```
./ServerInstall_SAM_8_0_revision.bin ↵
```

where

*revision* is the revision identifier, such as R1, R3, or another descriptor

b On a Sun X86-based station:

i Enter the following at the CLI prompt:

```
cd Solarisx86 ↵
```

ii Enter the following at the CLI prompt:

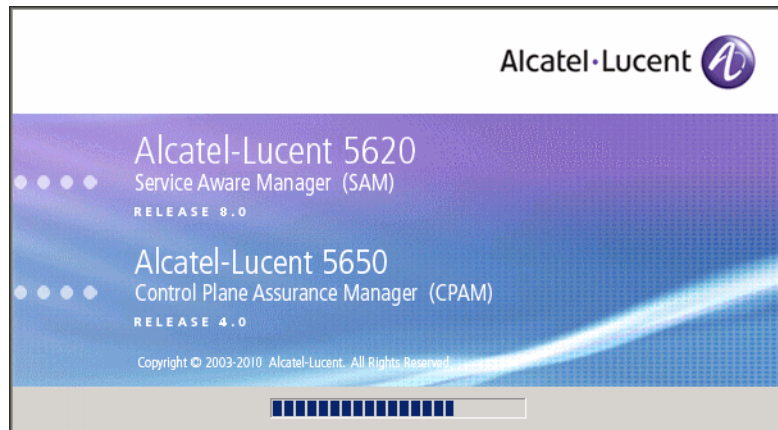
```
./ServerInstall_x86_SAM_8_0_revision.bin ↵
```

where

*revision* is the revision identifier, such as R1, R3, or another descriptor

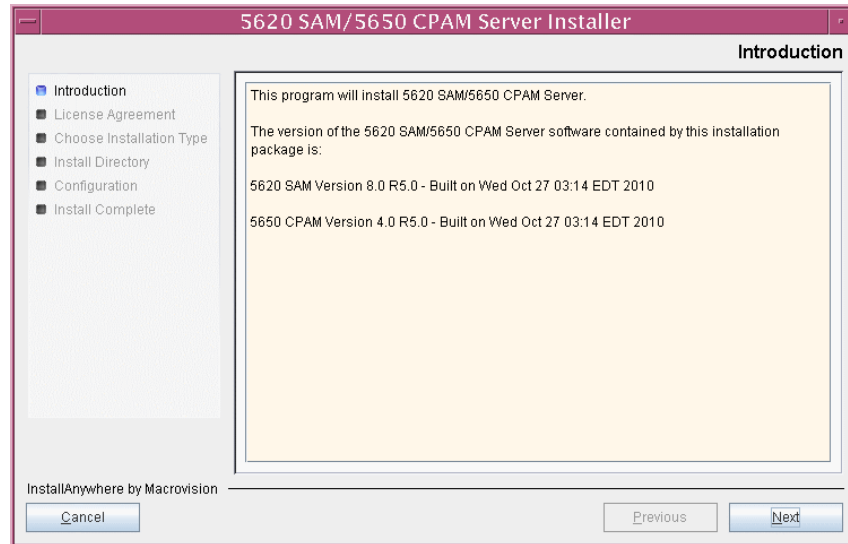
The splash screen shown in Figure 8-1 opens.

Figure 8-1 5620 SAM | 5650 CPAM installer



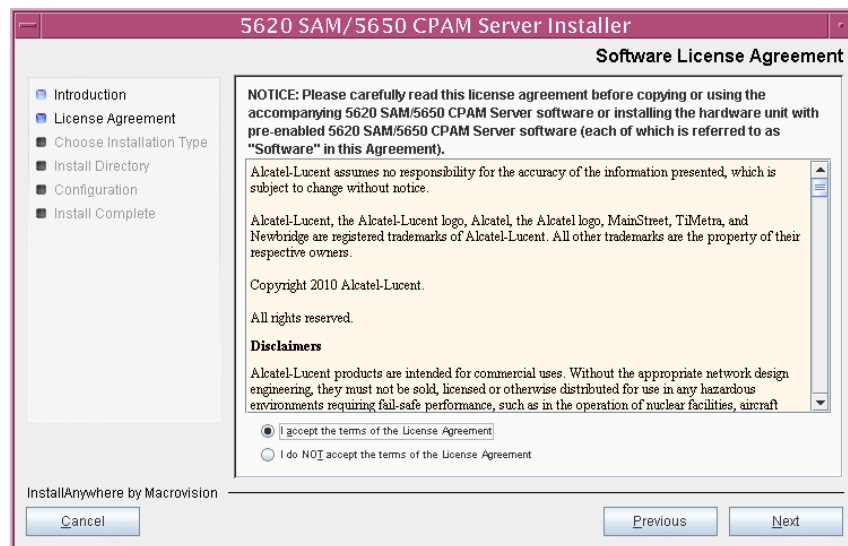
- 6 The 5650 CPAM server installer opens, as shown in Figure 8-2. The left pane indicates installation progress. The right pane displays release information about the software. Click on the Next button.

Figure 8-2 Introduction



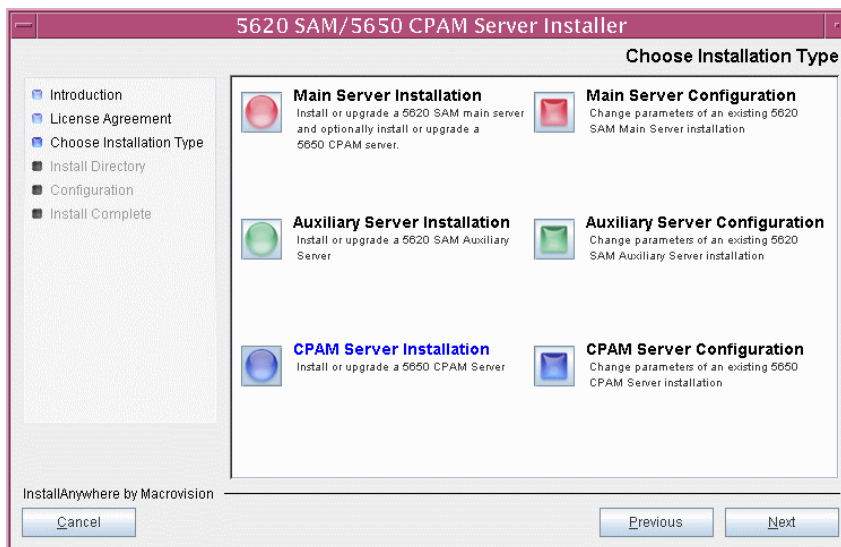
- 7 Review and accept the terms of the license agreement shown in Figure 8-3. Click on the Next button.

Figure 8-3 Software License Agreement



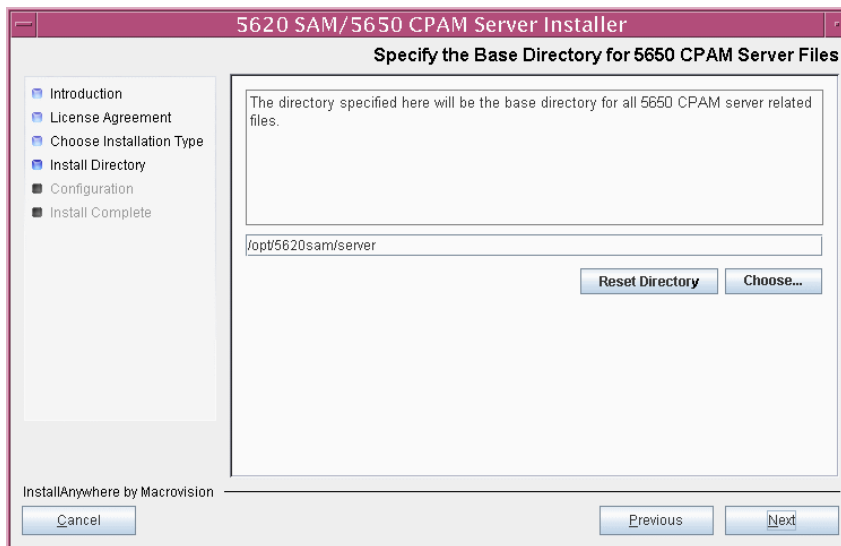
- 8 Select CPAM Server Installation, as shown in Figure 8-4. Click on the Next button.

Figure 8-4 Choose Installation Type



- 9 Specify a base directory in which to install the 5650 CPAM server software (typically /opt/5620sam/server), as shown in Figure 8-5. Click on the Next button.

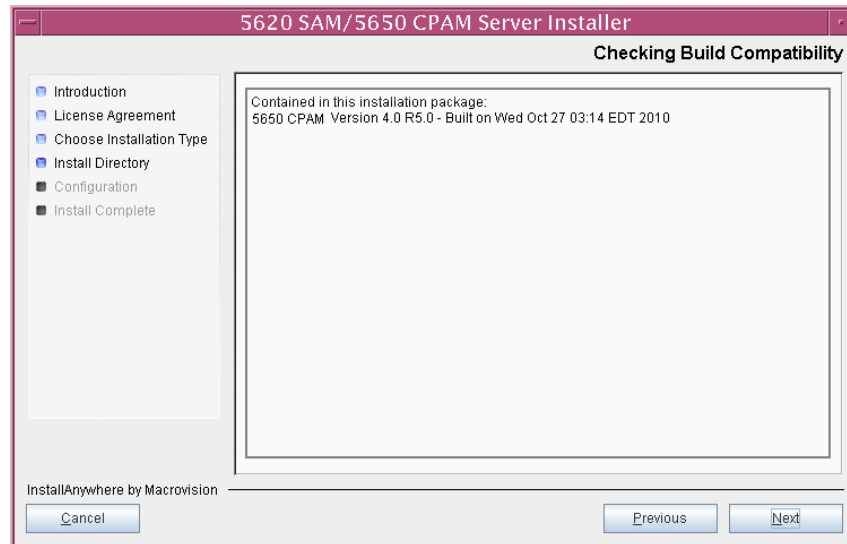
Figure 8-5 Specify the Base Directory for 5650 CPAM Server Files





- 10 As shown in Figure 8-6, the installer indicates which release of 5650 CPAM software is to be installed. Verify the information. Click on the Next button.

Figure 8-6 Checking Build Compatibility

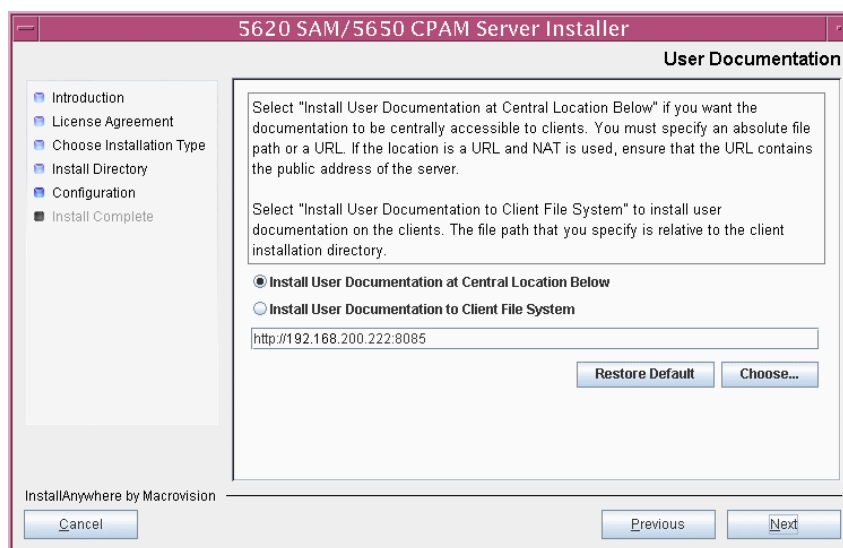


- 11 Perform one of the following to specify where the 5650 CPAM and 5620 SAM user documentation is to be stored.
  - a To store the documentation in a central location that is available to all clients, perform the following steps.
    - i Select the “Install User Documentation at Central Location Below” parameter, as shown in Figure 8-7.
    - ii To accept the default user documentation location that is displayed, go to step 12.
  - iii Specify a location for the user documentation in the field below the parameters.
  - iv Copy the contents of the User\_Documentation directory on the 5620 SAM | 5650 CPAM software DVD-ROM to the location specified in step iii.
  - v Click on the Next button. A dialog box appears.
  - vi Click on the OK button.



**Note —** If NAT is to be used between the 5620 SAM server and clients, you must update the default location using the public IP address of the server, or the documentation is not accessible to clients.

Figure 8-7 User Documentation



- b To store a copy of the documentation on the client file system, perform the following steps.
  - i Select the “Install User Documentation to Client File System” parameter shown in Figure 8-7.
  - ii Specify a file path relative to the 5620 SAM client installation directory. The path must not contain a leading slash.

For example, if the installation directory is /opt/5620sam/client and you specify Documents as the location, the documentation is installed in the following directory:

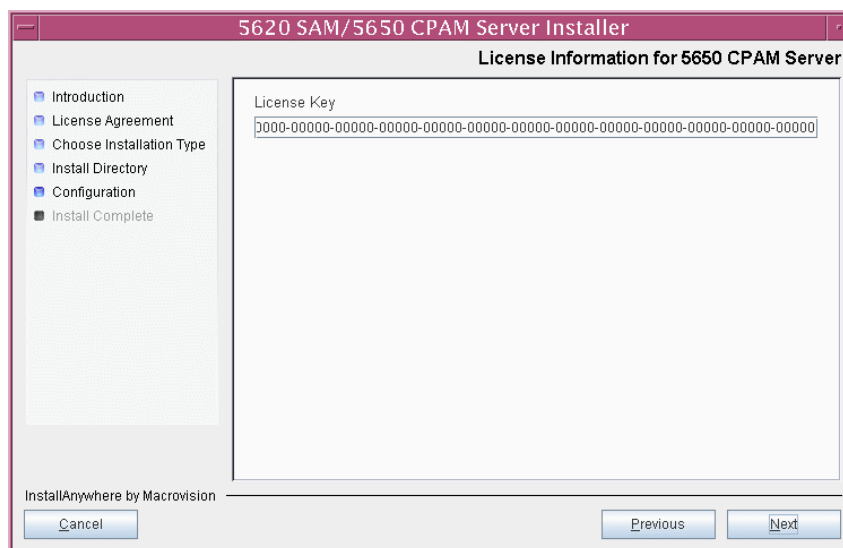
/opt/5620sam/client/Documents



**Note** — The 5620 SAM client uninstaller cannot remove the documentation unless it is installed below the nms directory in the 5620 SAM client installation directory, for example, /opt/5620sam/client/nms/Documents.

- 12 Click on the Next button.
- 13 Enter the License Key information exactly as received from Alcatel-Lucent. Include the dashes in the key, as shown in Figure 8-8. Click on the Next button.

Figure 8-8 License Information for 5650 CPAM Server



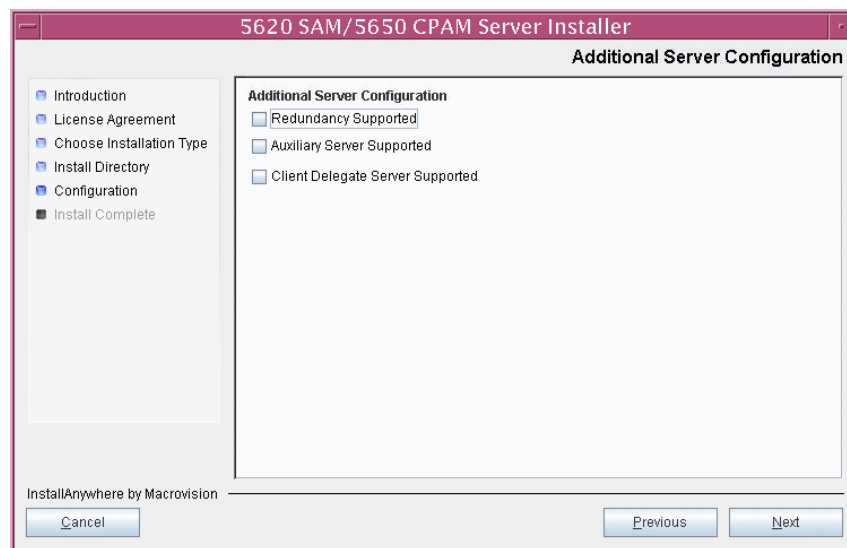
- 14 Configure the following parameters shown in Figure 8-9, then click on the Next button.

- Redundancy Supported
- Auxiliary Server Supported
- Client Delegate Server Supported



**Note** — You must leave the Redundancy Supported parameter unselected.

Figure 8-9 Additional Server Configuration



- 15 Configure the following parameters shown in Figure 8-10, then click on the Next button:
- Database Server IP Address
  - Database Instance Name (typically samdb)
  - Database Proxy Port (typically 9002)

Figure 8-10 Database Configuration

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window with the 'Database Configuration' tab selected. The window has a sidebar on the left with a list of steps: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (selected), and Install Complete. The main area contains a text box with instructions: 'If NAT (network address translation) is to be used, enter the 5620 SAM database's public IP address as known to the 5650 CPAM server.' Below this are three input fields: 'Database Server IP Address' (highlighted in yellow), 'Database Instance Name' (containing 'samdb'), and 'Database Proxy Port' (containing '9002'). At the bottom, there are 'Cancel', 'Previous', and 'Next' buttons. The text 'InstallAnywhere by Macrovision' is visible in the bottom left corner.

- 16 The panel in Figure 8-11 is displayed if you select “Auxiliary Server Supported” in step 14. Otherwise, go to step 17.

Perform the following steps.



**Note** — The 5620 SAM supports a maximum of one preferred and one reserved auxiliary server per 5620 SAM cluster.

- i Configure the following parameters shown in Figure 8-11:
- NAT (network address translation) Used  
Select this parameter only if NAT is to be used between the 5620 SAM main and auxiliary servers.
  - Private IP (accessible only by this server)  
You must configure this parameter if you select the NAT (network address translation) Used parameter.
  - Public IP (accessible to auxiliary)
  - Server Port (typically 12800)



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 8-11.

Figure 8-11 CPAM Server Configuration for Auxiliary Servers

5620 SAM/5650 CPAM Server Installer

CPAM Server Configuration for Auxiliary Servers

Enter the the network interface information that this 5650 CPAM server requires to communicate with the 5620 SAM auxiliary servers.

☒ NAT (network address translation) Used

Private IP (accessible only by this server) 192.168.200.111

Public IP (accessible to auxiliary)

Server Port 12800

InstallAnywhere by Macrovision

Cancel Previous Next

- ii Click on the Next button.

- 17 Perform the following steps.
  - i Configure the following parameters shown in Figure 8-12:
    - Server Domain Name (typically 5620sam)  
This is an identifier that uniquely identifies the 5620 SAM servers in a 5620 SAM cluster.
    - Use Hostname for Communication  
Select this parameter if the 5650 CPAM server is to use multiple interfaces for GUI and OSS client communication.

Figure 8-12 CPAM Server Address Configuration for Clients

- ii If you select Use Hostname for Communication, go to step 17 vi.
- iii Configure the following parameters:
  - NAT (network address translation) Used
  - Private IP (accessible only by this server)
  - Public IP (accessible to clients)
  - EJB JNDI Server port (typically 1099)
  - EJB JMS Server port (typically 8093)



**Note —** The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 8-12.

- iv Click on the Next button.
- v Go to step 18.

vi Configure the following parameters shown in Figure 8-13:

- NAT (network address translation) Used
- Private IP (accessible only by this server)
- Public Hostname
- EJB JNDI Server port (typically 1099)
- EJB JMS Server port (typically 8093)



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 8-13.

Figure 8-13 CPAM Server Address Configuration for Clients

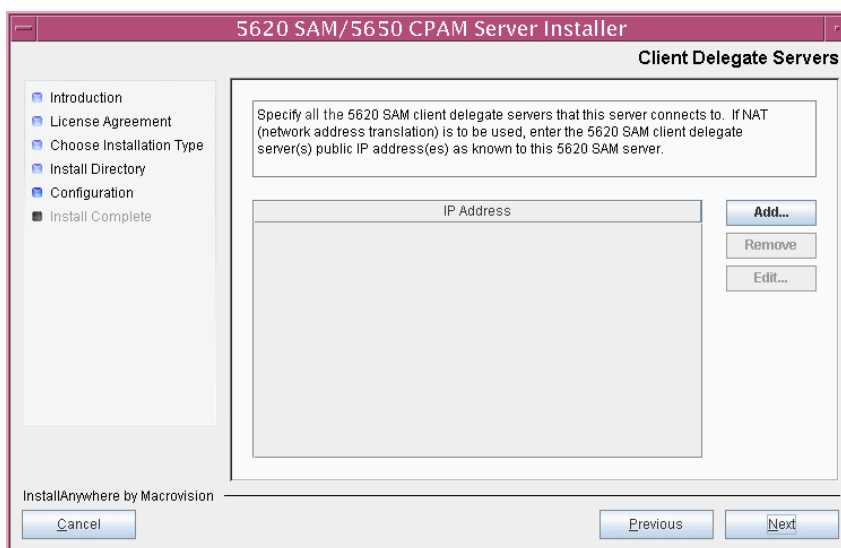
vii Click on the Next button.



- 18 The panel in Figure 8-14 is displayed if you select “Client Delegate Server Supported” in step 14. Otherwise, go to step 19.

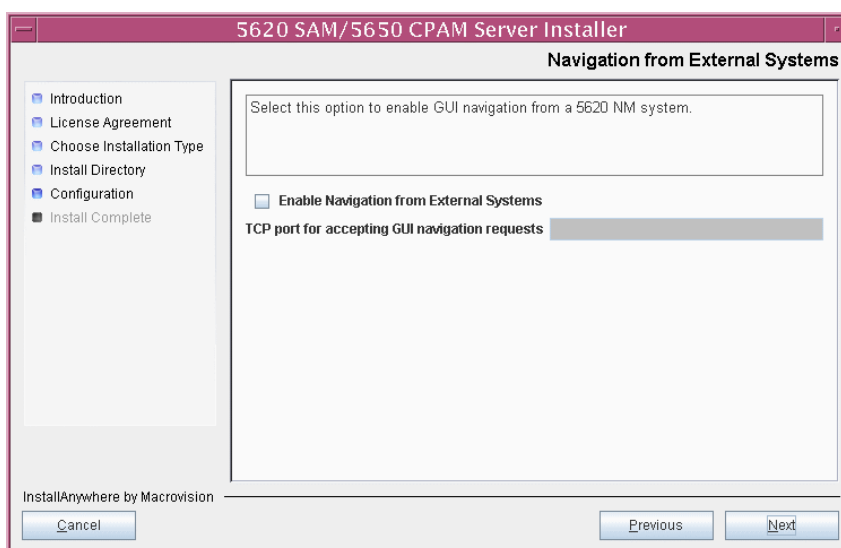
Click on the Add button to specify the client delegate server IP addresses, as required. If NAT is used between the 5620 SAM server and client delegate servers, specify the public IP address. Click on the Next button.

Figure 8-14 Client Delegate Servers



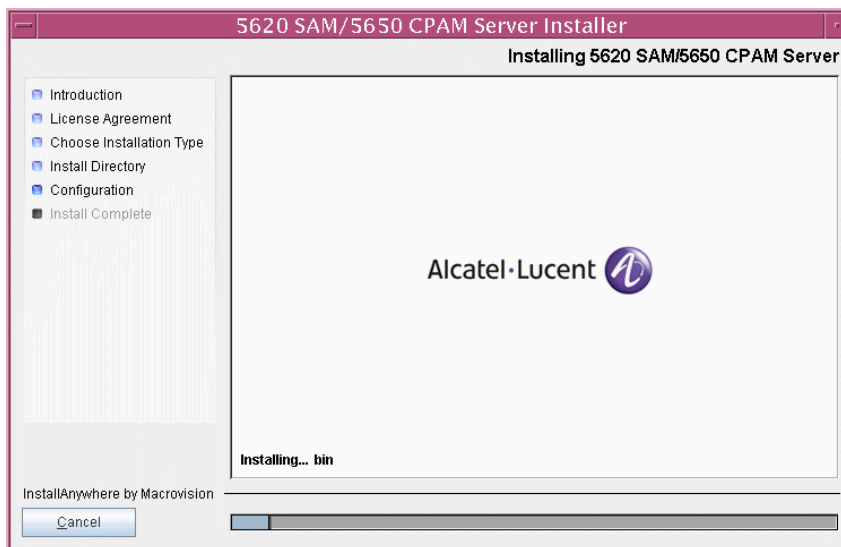
- 19 If you require 5620 SAM client navigation from a 5620 NM system, select the “Enable Navigation from External Systems” parameter shown in Figure 8-15 and specify the TCP port that the client is to use for accepting navigation requests. Click on the Next button to begin the server installation.

Figure 8-15 Navigation from External Systems



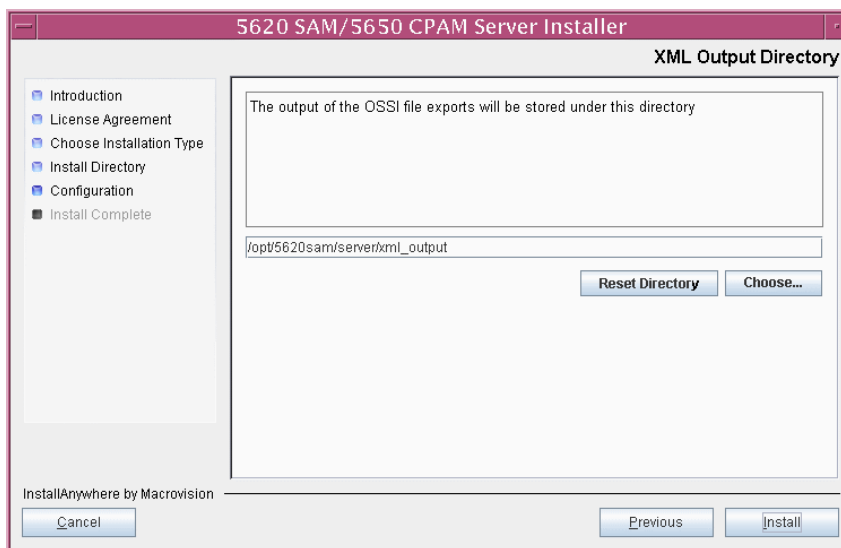
The next panel displays installation progress, as shown in Figure 8-16.

Figure 8-16 Installing 5620 SAM/5650 CPAM Server



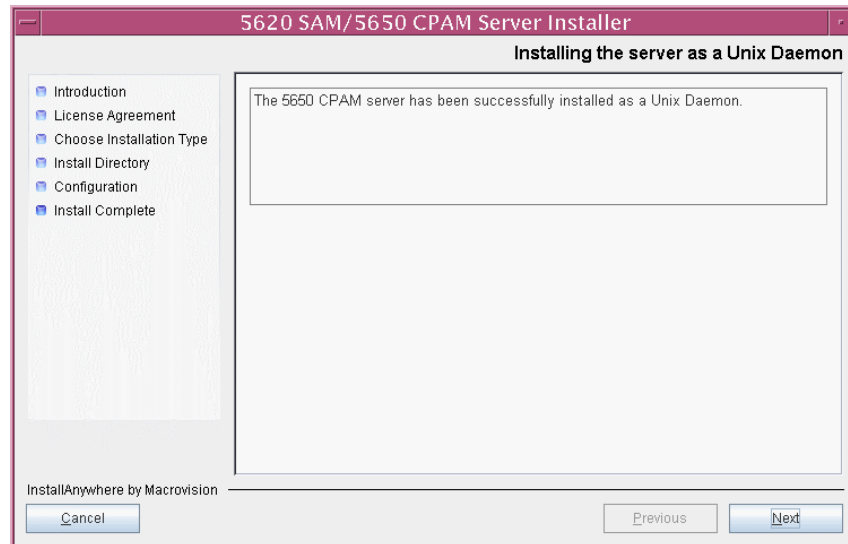
- 20 Specify an OSS XML output location (typically /opt/5620sam/server/xml\_output), as shown in Figure 8-17. Click on the Install button to begin the server installation.

Figure 8-17 XML Output Directory



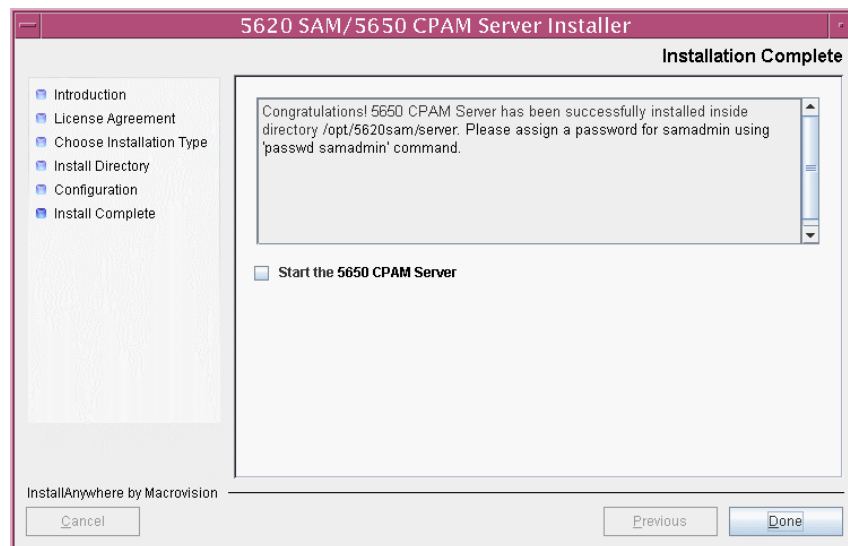
- 21 As shown in Figure 8-18, the 5650 CPAM server is installed as a UNIX daemon. Click on the Next button.

Figure 8-18 Installing the Server as a Unix Daemon



- 22 When the server installation is complete, as shown in Figure 8-19, configure the “Start the 5650 CPAM Server” parameter to specify whether you want the server to start immediately after the installation.

Figure 8-19 Installation Complete



- 23 Click on the Done button to close the server installer. If you specified that the server is to start after installation, the server starts. Initial server startup can take twenty minutes or more.

- 24 The installer creates a user account called samadmin that is required for 5650 CPAM system administration. You must assign a new password to this user account.

Perform the following steps to assign a new samadmin password.

- i Enter the following at the CLI prompt:

```
passwd samadmin
```

The following prompt is displayed:

```
New Password:
```

- ii Enter the new password and press ↵.

The following prompt is displayed:

```
Confirm New Password:
```

- iii Enter the new password again and press ↵. The password is changed.

- iv Record the new password and store it in a secure location.

- 25 Restart each currently open 5620 SAM GUI client that connects to the 5620 SAM/5650 CPAM server.



**Note —** The 5650 CPAM functionality is not visible in a client GUI until the client is restarted.

---

## Procedure 8-2 To install a redundant 5650 CPAM system

---

Perform this procedure to install the 5650 CPAM software on a Solaris station in a redundant deployment. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



**Note 1 —** You must perform this procedure on each 5650 CPAM station in the redundant deployment.

**Note 2 —** You require root or root-equivalent user privileges on the 5650 CPAM station to perform this procedure.

- 1 Log in to the station that is to be the 5650 CPAM station as a user with root or root-equivalent privileges.
- 2 Open a console window.
- 3 Place the 5620 SAM | 5650 CPAM software DVD-ROM in a DVD-ROM drive.
- 4 Navigate to the DVD-ROM drive.

## 5 Perform one of the following to open the 5620 SAM | 5650 CPAM server installer.

## a On a Sun SPARC station:

## i Enter the following at the CLI prompt:

```
cd Solaris ↵
```

## ii Enter the following at the CLI prompt:

```
./ServerInstall_SAM_8_0_revision.bin ↵
```

where

*revision* is the revision identifier, such as R1, R3, or another descriptor

## b On a Sun X86-based station:

## i Enter the following at the CLI prompt:

```
cd Solarisx86 ↵
```

## ii Enter the following at the CLI prompt:

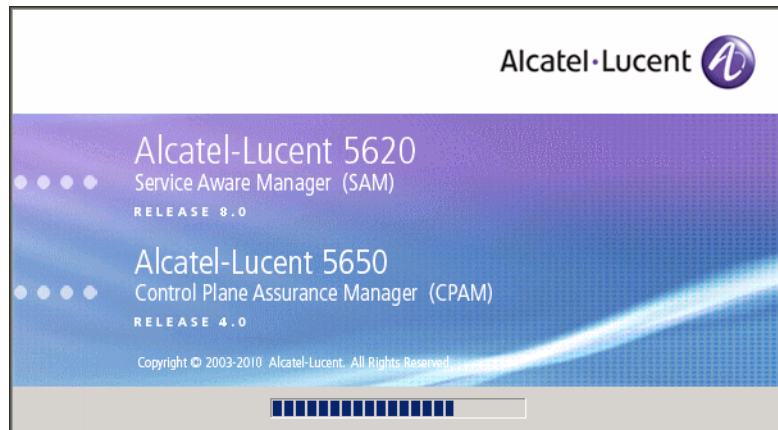
```
./ServerInstall_x86_SAM_8_0_revision.bin ↵
```

where

*revision* is the revision identifier, such as R1, R3, or another descriptor

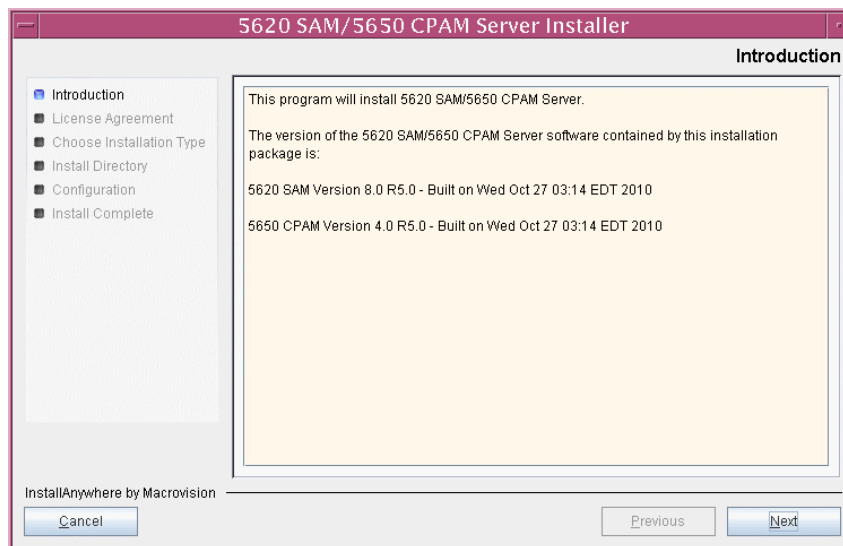
The splash screen shown in Figure 8-20 opens.

Figure 8-20 5620 SAM | 5650 CPAM installer



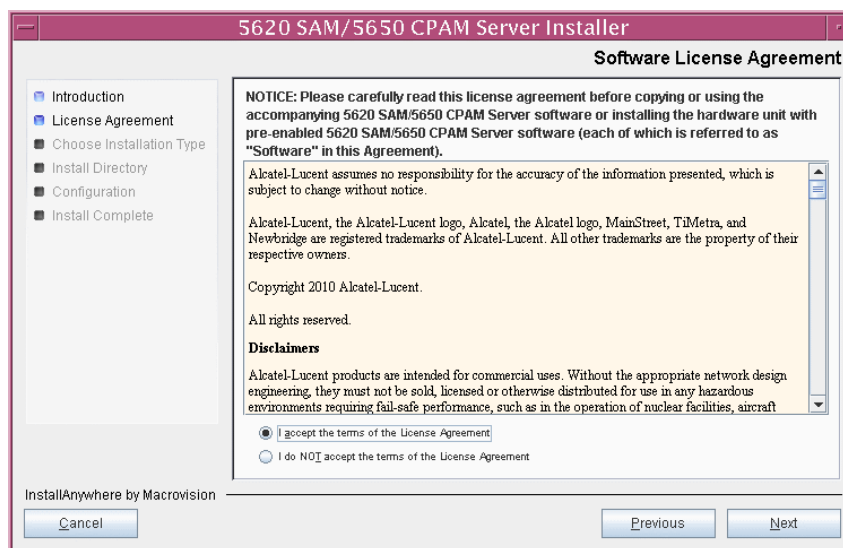
- 6 The 5650 CPAM server installer opens, as shown in Figure 8-21. The left pane indicates installation progress. The right pane displays release information about the software. Click on the Next button.

Figure 8-21 Introduction



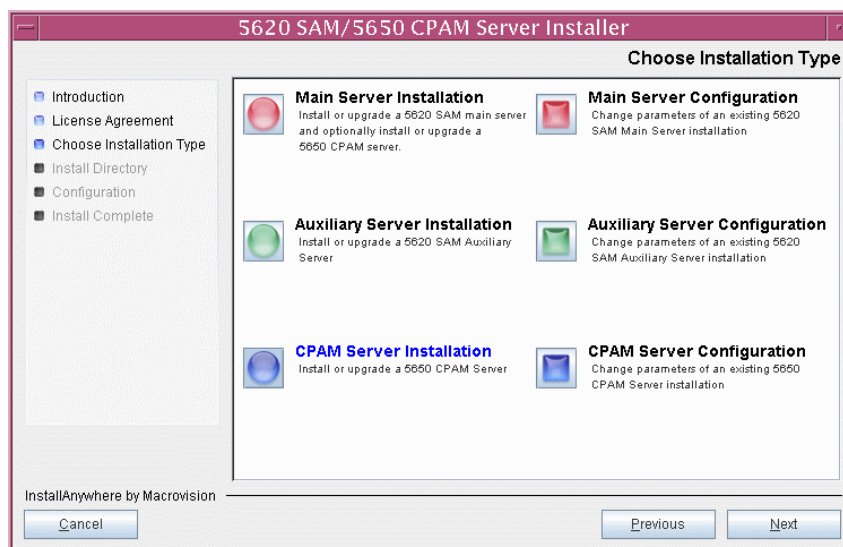
- 7 Review and accept the terms of the license agreement shown in Figure 8-22. Click on the Next button.

Figure 8-22 Software License Agreement



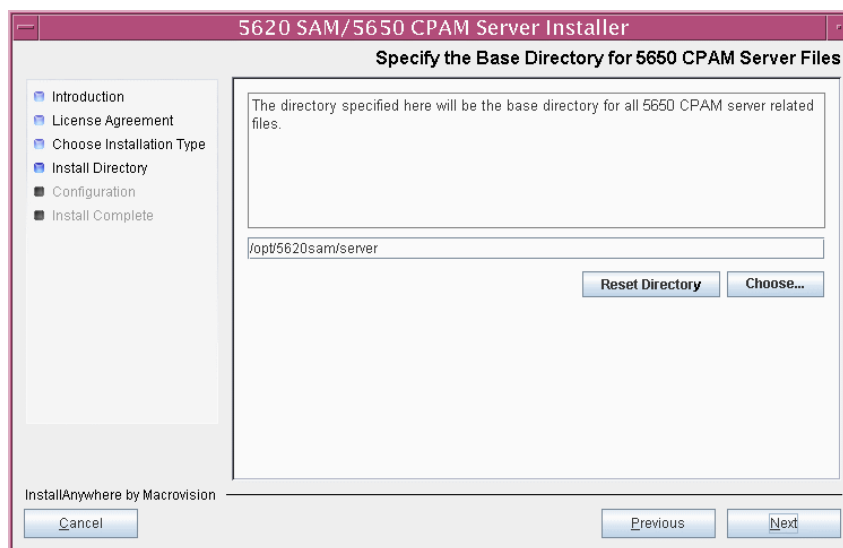
- 8 Select CPAM Server Installation, as shown in Figure 8-23. Click on the Next button.

Figure 8-23 Choose Installation Type



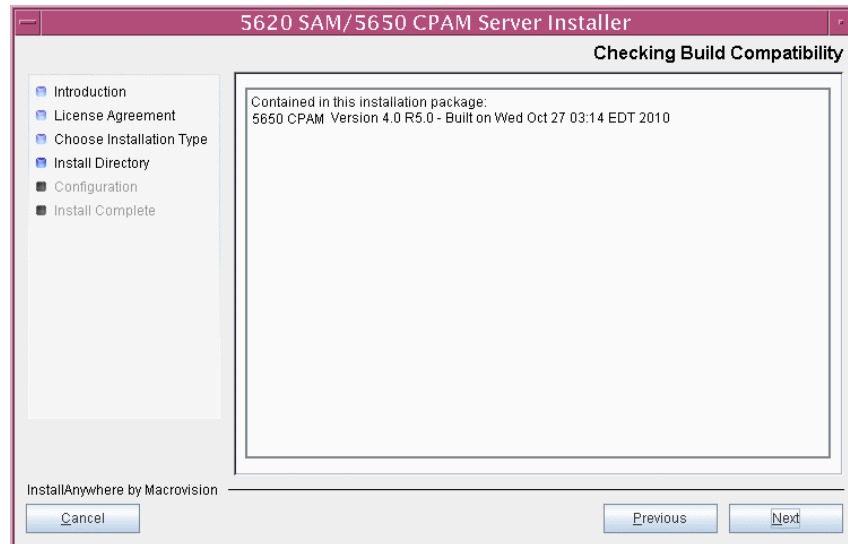
- 9 Specify a base directory in which to install the 5650 CPAM server software (typically /opt/5620sam/server), as shown in Figure 8-24. Click on the Next button.

Figure 8-24 Specify the Base Directory for 5650 CPAM Server Files



- 10 As shown in Figure 8-25, the installer indicates which release of 5650 CPAM software is to be installed. Verify the information. Click on the Next button.

Figure 8-25 Checking Build Compatibility






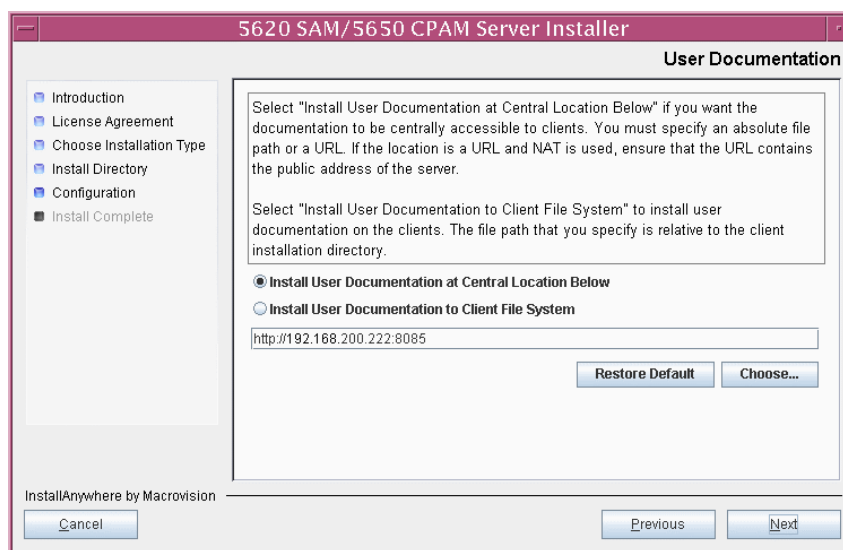
- 11 Perform one of the following to specify where the 5650 CPAM and 5620 SAM user documentation is to be stored.
    - a To store the documentation in a central location that is available to all clients, perform the following steps.
      - i Select the “Install User Documentation at Central Location Below” parameter, as shown in Figure 8-26.
      - ii To accept the default user documentation location that is displayed, go to step 12.
-  **Note** — If NAT is to be used between the 5620 SAM server and clients, you must update the default location using the public IP address of the server, or the documentation is not accessible to clients.
- iii Specify a location for the user documentation in the field below the parameters.
  - iv Copy the contents of the User\_Documentation directory on the 5620 SAM | 5650 CPAM software DVD-ROM to the location specified in step iii.
  - v Click on the Next button. A dialog box appears.
  - vi Click on the OK button.

Figure 8-26 User Documentation



- b To store a copy of the documentation on the client file system, perform the following steps.
  - i Select the “Install User Documentation to Client File System” parameter shown in Figure 8-26.
  - ii Specify a file path relative to the 5620 SAM client installation directory. The path must not contain a leading slash.

For example, if the installation directory is /opt/5620sam/client and you specify Documents as the location, the documentation is installed in the following directory:

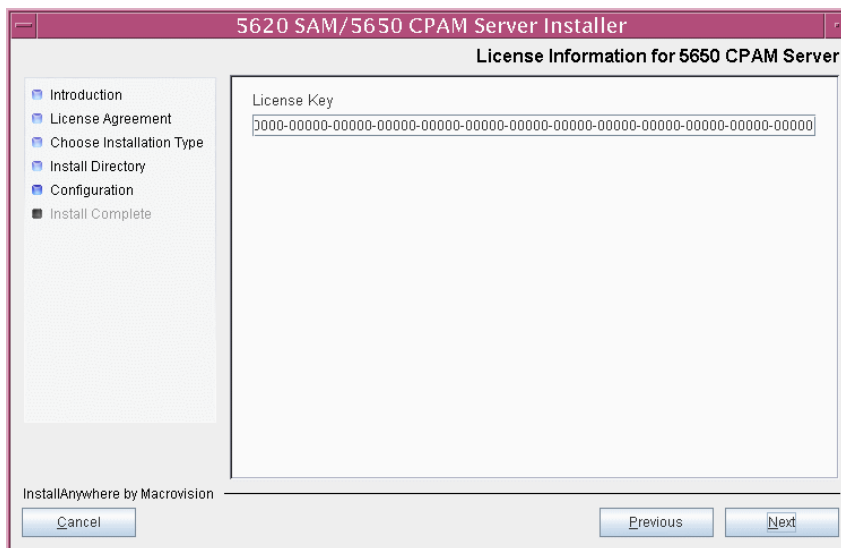
/opt/5620sam/client/Documents



**Note** — The 5620 SAM client uninstaller cannot remove the documentation unless it is installed below the nms directory in the 5620 SAM client installation directory, for example, /opt/5620sam/client/nms/Documents.

- 12 Click on the Next button.
- 13 Enter the License Key information exactly as received from Alcatel-Lucent. Include the dashes in the key, as shown in Figure 8-27. Click on the Next button.

Figure 8-27 License Information for 5650 CPAM Server



14 Configure the following parameters shown in Figure 8-28, then click on the Next button.

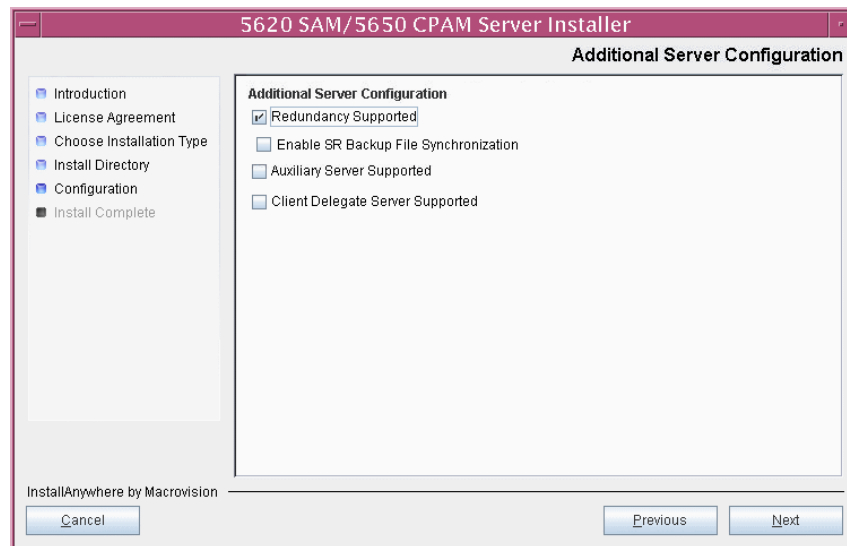
- Redundancy Supported
- Enable SR Backup File Synchronization
- Auxiliary Server Supported
- Client Delegate Server Supported



**Note 1** — You must select the Redundancy Supported parameter.

**Note 2** — The Enable SR Backup File Synchronization parameter is displayed only when the Redundancy Supported parameter is enabled.

Figure 8-28 Additional Server Configuration



- 15 Configure the following parameters shown in Figure 8-29. Click on the Next button.
- Primary Database Server IP Address
  - Primary Database Server Port (typically 1523)
  - Primary Database Instance Name (typically samdb1)
  - Database User Name (typically samuser)
  - Database User Password
  - Primary Database Proxy Port (typically 9002)

Figure 8-29 Primary Database Configuration

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window with the 'Primary Database Configuration' tab selected. On the left is a navigation pane with the following items: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (highlighted), and Install Complete. The main area contains a text box with instructions: 'If NAT (network address translation) is to be used, enter the primary 5620 SAM database's public IP address as known to the 5650 CPAM server.' Below this are six input fields: 'Primary Database Server IP Address' (highlighted in yellow), 'Primary Database Server Port' (1523), 'Primary Database Instance Name' (samdb1), 'Database User Name' (samuser), 'Database User Password' (masked with asterisks), and 'Primary Database Proxy Port' (9002). At the bottom left is the text 'InstallAnywhere by Macrovision' and a 'Cancel' button. At the bottom right are 'Previous' and 'Next' buttons.

- 16 Configure the following parameters shown in Figure 8-30, then click on the Next button:
- Database Server IP Address
  - Database Instance Name (typically samdb2)
  - Database Proxy Port (typically 9002)

Figure 8-30 Standby Database Configuration

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window with the 'Standby Database Configuration' tab selected. On the left is a navigation pane with the following items: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (highlighted), and Install Complete. The main area contains a text box with the instruction: 'If NAT (network address translation) is to be used, enter the standby 5620 SAM database's public IP address as known to the 5650 CPAM server.' Below this are three input fields: 'Database Server IP Address' (empty), 'Database Instance Name' (containing 'samdb2'), and 'Database Proxy Port' (containing '9002'). At the bottom left is the text 'InstallAnywhere by Macrovision' and a 'Cancel' button. At the bottom right are 'Previous' and 'Next' buttons.

- 17 The panel in Figure 8-31 is displayed if you select “Auxiliary Server Supported” in step 14. Otherwise, go to step 18.

Perform the following steps.



**Note —** The 5620 SAM supports a maximum of one preferred and one reserved auxiliary server per 5620 SAM cluster.

- i Configure the following parameters shown in Figure 8-31:
- NAT (network address translation) Used  
Select this parameter only if NAT is to be used between the 5620 SAM main and auxiliary servers.
  - Private IP (accessible only by this server)  
You must configure this parameter if you select the NAT (network address translation) Used parameter.
  - Public IP (accessible to auxiliary)
  - Server Port (typically 12800)



**Note —** The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 8-31.

Figure 8-31 CPAM Server Configuration for Auxiliary Servers

5620 SAM/5650 CPAM Server Installer

**CPAM Server Configuration for Auxiliary Servers**

Enter the the network interface information that this 5650 CPAM server requires to communicate with the 5620 SAM auxiliary servers.

☒ NAT (network address translation) Used

Private IP (accessible only by this server) 192.168.200.111

Public IP (accessible to auxiliary)

Server Port 12800

InstallAnywhere by Macrovision

Cancel Previous Next

- ii Click on the Next button.

- 18 Perform the following steps.
  - i Configure the following parameters shown in Figure 8-32:
    - Server Domain Name (typically 5620sam)  
This is an identifier that uniquely identifies the 5620 SAM servers in a 5620 SAM cluster.
    - Use Hostname for Communication  
Select this parameter if the 5650 CPAM server is to use multiple interfaces for GUI and OSS client communication.

Figure 8-32 CPAM Server Address Configuration for Clients

- ii If you select Use Hostname for Communication, go to step 18 vi.
- iii Configure the following parameters:
  - NAT (network address translation) Used
  - Private IP (accessible only by this server)
  - Public IP (accessible to clients)
  - EJB JNDI Server port (typically 1099)
  - EJB JMS Server port (typically 8093)



**Note —** The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 8-32.

- iv Click on the Next button.
- v Go to step 19.

vi Configure the following parameters shown in Figure 8-32:

- NAT (network address translation) Used
- Private IP (accessible only by this server)
- Public Hostname
- EJB JNDI Server port (typically 1099)
- EJB JMS Server port (typically 8093)



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 8-32.

Figure 8-33 CPAM Server Address Configuration for Clients

5620 SAM/5650 CPAM Server Installer

**CPAM Server Address Configuration for Clients**

Enter the network interface information that this 5650 CPAM server requires to communicate with the GUI and OSS clients.

If multiple addresses are to be used for communication with GUI clients, OSS clients, and auxiliary servers, a hostname must be provided for the Public Hostname field.

Server Domain Name

☒ Use Hostname for Communication

☒ NAT (network address translation) Used

Private IP (accessible only by this server)

Public Hostname

EJB JNDI Server port

EJB JMS Server port

InstallAnywhere by Macrovision

vii Click on the Next button.



19 Configure the following parameters shown in Figure 8-34:

- Public IP (visible to peer server)
- High Available JNDI Port (typically 1100)
- TCP Port Cluster Number (typically 11800)

If NAT is to be used between this 5620 SAM server and the peer 5620 SAM server, select the “NAT (network address translation) Used” parameter and enter the private IP address of the server. Click on the Next button.

Figure 8-34 CPAM Server Address Configuration

5620 SAM/5650 CPAM Server Installer

**CPAM Server Address Configuration**

Enter the the network interface information that the 5650 CPAM server will use to communicate with the peer server.

Public IP (visible to peer server)

High Available JNDI Port

TCP Port Cluster Number

☐ NAT (network address translation) Used

Private IP (accessible only by this server)

InstallAnywhere by Macrovision

20 Configure the following parameters shown in Figure 8-35, then click on the Next button:

- Peer Server IP Address
- Peer Server Trap Log Id (typically 98)
- Peer Server SNMP Trap Receiving IP Address
- Peer Server SNMP Port Number (typically 162)
- Peer Server TCP Port Cluster Number (typically 11800)

Figure 8-35 Peer CPAM Server Configurations

The screenshot shows a window titled "5620 SAM/5650 CPAM Server Installer" with a sub-header "Peer CPAM Server Configurations". On the left is a navigation pane with the following items: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (highlighted), and Install Complete. The main area contains a text box with instructions: "If NAT (network address translation) is to be used, enter the 5650 CPAM peer server's public IP address as known to the 5650 CPAM server. Also enter the 5650 CPAM peer server's public IP address as known to the devices within the managed network." Below this are five input fields: "Peer Server IP Address" (empty), "Peer Server Trap Log Id" (98), "Peer Server SNMP Trap Receiving IP Address" (empty), "Peer Server SNMP Trap Receiving Port" (162), and "Peer Server TCP Port Cluster Number" (11800). At the bottom left is the text "InstallAnywhere by Macrovision" and a "Cancel" button. At the bottom right are "Previous" and "Next" buttons.

21 If you selected the Use Hostname for Communication parameter in step 18, go to step 23.

- 22 Configure the following parameters shown in Figure 8-36, then click on the Next button:
- 5620 SAM Peer Server IP Address
  - 5620 SAM JNDI High Available Peer Server Port (typically 1100)
  - 5620 SAM JNDI Peer Server Port (typically 1099)

Figure 8-36 Peer CPAM Server Configurations (cont.)

5620 SAM/5650 CPAM Server Installer

Peer CPAM Server Configurations (cont.)

Introduction  
License Agreement  
Choose Installation Type  
Install Directory  
Configuration  
Install Complete

Enter the IP address of the network interface the GUI and OSS clients require to communicate with the peer server. If NAT (network address translation) is to be used, specify the public IP address as known to the 5620 SAM clients.

If multiple addresses are to be used for communication with GUI clients, OSS clients, and auxiliary servers, a hostname must be provided for the 5620 SAM Peer Server Hostname field.

5620 SAM Peer Server IP Address

5620 SAM JNDI High Available Peer Server Port 1100

5620 SAM JNDI Peer Server Port 1099

InstallAnywhere by Macrovision

Cancel Previous Next

- 23 Configure the following parameters shown in Figure 8-37, then click on the Next button:
- 5620 SAM Peer Server Hostname
  - 5620 SAM JNDI High Available Peer Server Port (typically 1100)
  - 5620 SAM JNDI Peer Server Port (typically 1099)

Figure 8-37 Peer CPAM Server Configurations (cont.)

**5620 SAM/5650 CPAM Server Installer**

**Peer CPAM Server Configurations (cont.)**

Enter the IP address of the network interface the GUI and OSS clients require to communicate with the peer server. If NAT (network address translation) is to be used, specify the public IP address as known to the 5620 SAM clients.

If multiple addresses are to be used for communication with GUI clients, OSS clients, and auxiliary servers, a hostname must be provided for the 5620 SAM Peer Server Hostname field.

5620 SAM Peer Server Hostname

5620 SAM JNDI High Available Peer Server Port

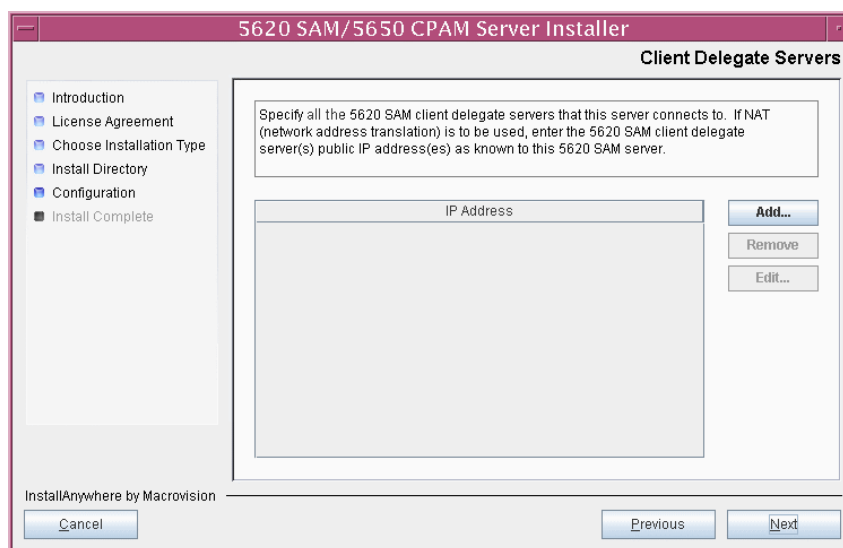
5620 SAM JNDI Peer Server Port

InstallAnywhere by Macrovision

- 24 The panel in Figure 8-38 is displayed if you select “Client Delegate Server Supported” in step 14. Otherwise, go to step 25.

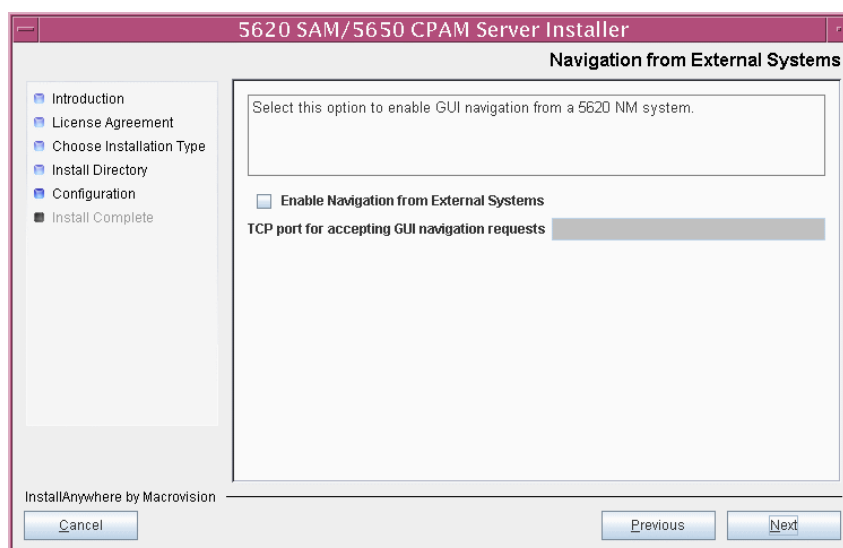
Click on the Add button to specify the client delegate server IP addresses, as required. If NAT is used between the 5620 SAM server and client delegate servers, specify the public IP address. Click on the Next button.

Figure 8-38 Client Delegate Servers



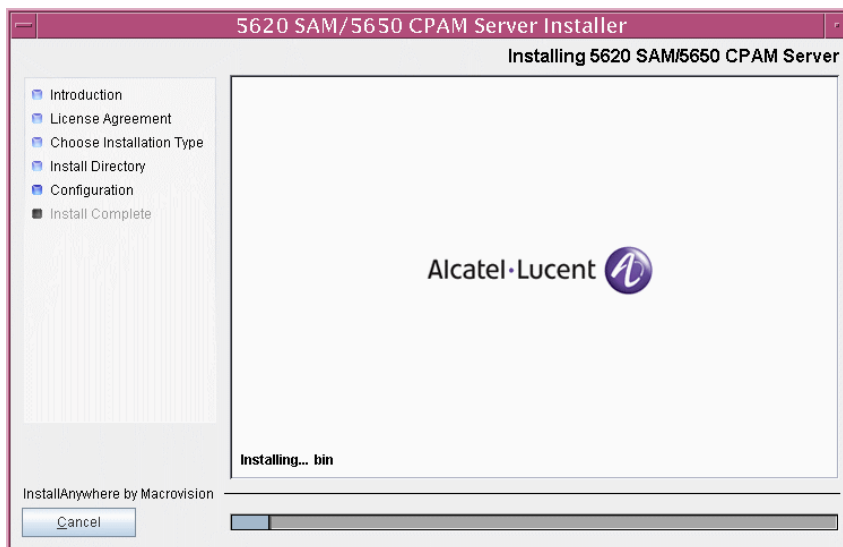
- 25 If you require 5620 SAM client navigation from a 5620 NM system, select the “Enable Navigation from External Systems” parameter shown in Figure 8-39 and specify the TCP port that the client is to use for accepting navigation requests. Click on the Next button to begin the server installation.

Figure 8-39 Navigation from External Systems



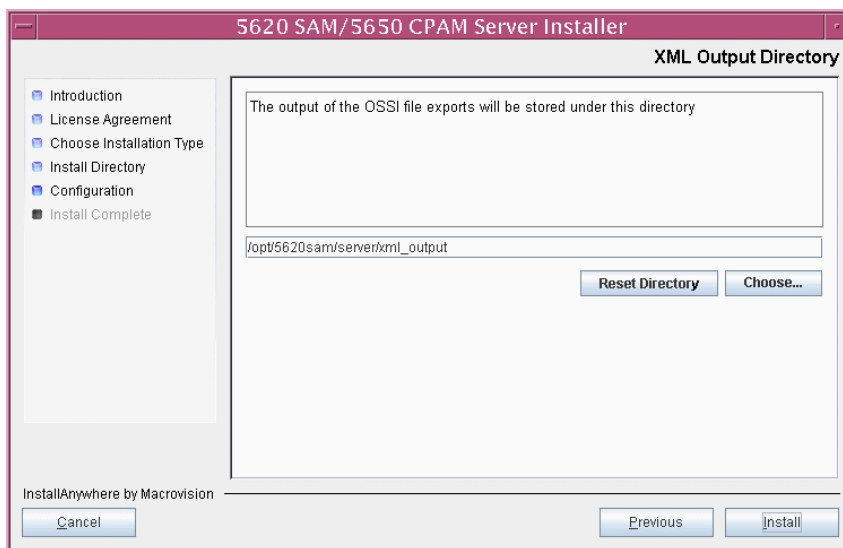
The next panel displays installation progress, as shown in Figure 8-40.

Figure 8-40 Installing 5620 SAM/5650 CPAM Server



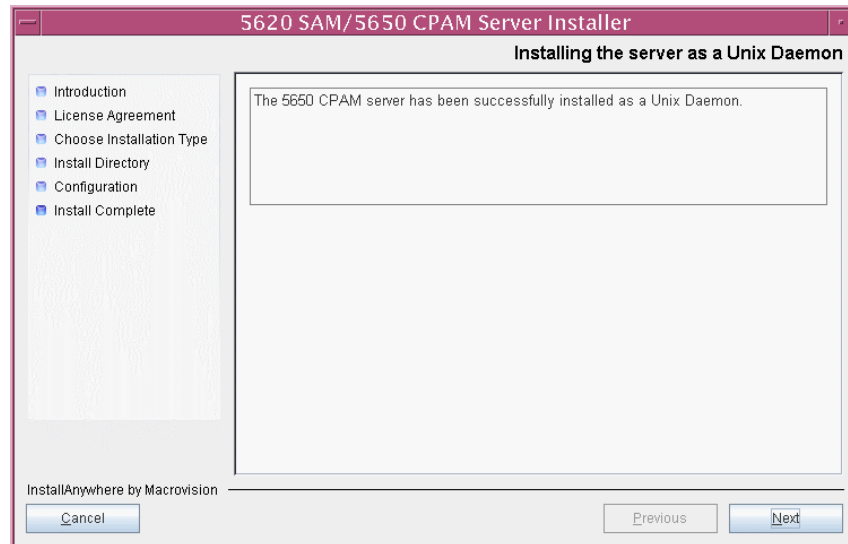
- 26 Specify an OSS XML output location (typically /opt/5620sam/server/xml\_output), as shown in Figure 8-41. Click on the Install button to begin the server installation.

Figure 8-41 XML Output Directory



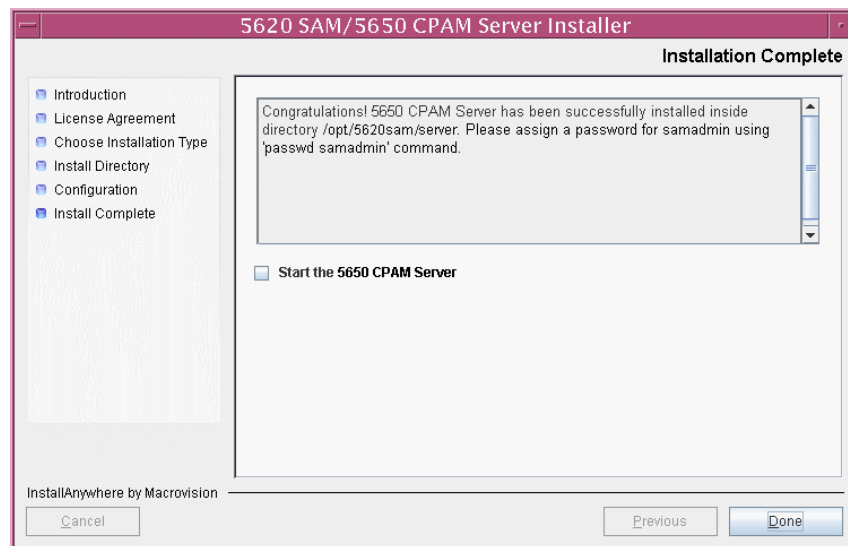
- 27 As shown in Figure 8-42, the 5650 CPAM server is installed as a UNIX daemon. Click on the Next button.

Figure 8-42 Installing the Server as a Unix Daemon



- 28 When the server installation is complete, as shown in Figure 8-43, configure the “Start the 5650 CPAM Server” parameter to specify whether you want the server to start immediately after the installation.

Figure 8-43 Installation Complete



- 29 Click on the Done button to close the server installer. If you specified that the server is to start after installation, the server starts. Initial server startup can take twenty minutes or more.
- 30 The installer creates a user account called samadmin that is required for 5650 CPAM system administration. You must assign a new password to this user account.

Perform the following steps to assign a new samadmin password.

- i Enter the following at the CLI prompt:

```
passwd samadmin
```

The following prompt is displayed:

```
New Password:
```

- ii Enter the new password and press ↵.

The following prompt is displayed:

```
Confirm New Password:
```

- iii Enter the new password again and press ↵. The password is changed.
  - iv Record the new password and store it in a secure location.
- 31 Restart each currently open 5620 SAM GUI client that connects to the 5620 SAM/5650 CPAM server.



**Note** — The 5650 CPAM functionality is not visible in a client GUI until the client is restarted.

---

## 8.4 5650 CPAM server upgrade

This section describes how to upgrade the 5650 CPAM software. A 5650 CPAM software upgrade is typically performed as part of a 5620 SAM main server upgrade.



**Note** — The 5650 CPAM software is automatically installed when you install the 5620 SAM main server software, but is activated only after a valid 5650 CPAM license key is added to the 5650 CPAM configuration.

The procedures in this section are for use only in the following situations:

- when the 5650 CPAM server is to be used without a 5620 SAM main server
- when the 5650 CPAM server is to be used with a 5620 SAM main server that is installed on a station other than the 5650 CPAM station



The 5650 CPAM and the 7701 CPAA can function only when the software versions are compatible, for example, 5650 CPAM, Release 2.0 R6 and 7701 CPAA, Release 2.0 R9. If you upgrade one component, you must upgrade the other component. See the current 5650 CPAM release notice for product compatibility information.



**Note 1** — When you perform a 5620 SAM upgrade, the 5650 CPAM software is upgraded automatically.

**Note 2** — You can use the 5650 CPAM to upgrade the 7701 CPAA, or you can upgrade the 7701 CPAA during a 5620 SAM upgrade to save time.

**Note 3** — Command-line examples in the following procedures use the # symbol to represent the Solaris CLI prompt. Do not type the leading # symbol when you enter a command.

### Procedure 8-3 To upgrade a standalone 5650 CPAM system

---

Perform this procedure to upgrade the 5650 CPAM software on a Solaris station in a standalone deployment. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



**Note** — You require root or root-equivalent user privileges on the 5650 CPAM station to perform this procedure.

- 1 Use the 5650 CPAM to set a reference for each IGP routing domain, for example, OSPF areas, and IS-IS Level 1 and Level 2 domains. See the *5650 CPAM User Guide* for information about setting a reference.
- 2 Use the 5650 CPAM to set a checkpoint for each IGP routing domain, for example, OSPF areas, and IS-IS Level 1 and Level 2 domains. See the *5650 CPAM User Guide* for information about setting a checkpoint.
- 3 Ensure that each 7701 CPAA TCP connection to the 5650 CPAM is administratively and operationally up.
- 4 Use the 5650 CPAM to back up the 7701 CPAA configuration. See the *5650 CPAM User Guide* for information about backing up a 7701 CPAA configuration.
- 5 Stop the 5650 CPAM server application.



**Note 1** — When you stop the 5650 CPAM server application, you also stop the 5620 SAM server application.

**Note 2** — Because the CLI prompts for the samadmin and root or root-equivalent users differ, no CLI prompts are shown in the step text.

- i Log in to the server station as the appropriate user:
  - If you are upgrading from 5650 CPAM Release 2.0 or later, you must log in as the samadmin user.
  - If you are upgrading from a 5650 CPAM release earlier than 2.0, you must log in as a root or root-equivalent user.

- ii Open a console window.
- iii Enter the following at the CLI prompt to change to the server binary directory:

```
cd path/nms/bin ↵
```

where *path* is the 5650 CPAM server installation location, typically /opt/5620sam/server

- iv Enter the following at the CLI prompt to stop the 5650 CPAM server software:

```
./nmsserver.bash stop ↵
```

- v Enter the following at the CLI prompt to display the 5650 CPAM server status:

```
./nmsserver.bash appserver_status ↵
```

The command displays a status message.

- vi The 5650 CPAM server is stopped when the command displays the following status message:

```
Application Server is stopped
```

If the command displays a different message, wait 5 m and repeat step 5 v. Do not proceed to the next step until the server is stopped.

- 6 Perform one of the following.
  - a Upgrade the 5650 CPAM server as part of a 5620 SAM system upgrade.
    - i Perform the appropriate 5620 SAM upgrade procedures in chapter 4.
    - ii Perform step 33 in this procedure.
  - b Upgrade the 5650 CPAM server using this procedure.
- 7 Log in to the 5650 CPAM station as a user with root or root-equivalent privileges.
- 8 Open a console window.
- 9 Place the new 5620 SAM | 5650 CPAM software DVD-ROM in a DVD-ROM drive.
- 10 Navigate to the DVD-ROM drive.

11 Perform one of the following to open the 5620 SAM | 5650 CPAM server installer.

a On a Sun SPARC station:

i Enter the following at the CLI prompt:

```
cd Solaris ↵
```

ii Enter the following at the CLI prompt:

```
./ServerInstall_SAM_8_0_revision.bin ↵
```

where

*revision* is the revision identifier, such as R1, R3, or another descriptor

b On a Sun X86-based station:

i Enter the following at the CLI prompt:

```
cd Solarisx86 ↵
```

ii Enter the following at the CLI prompt:

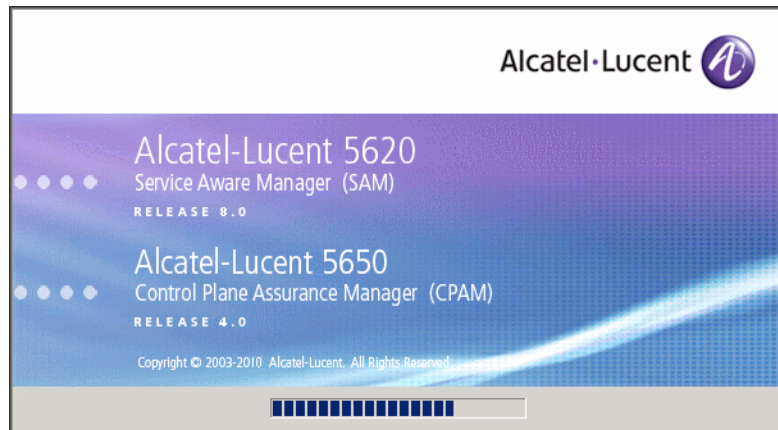
```
./ServerInstall_x86_SAM_8_0_revision.bin ↵
```

where

*revision* is the revision identifier, such as R1, R3, or another descriptor

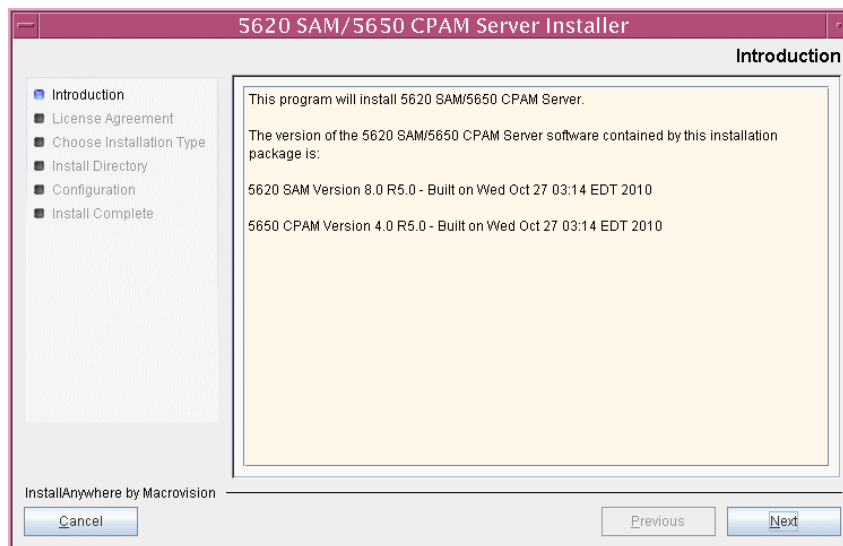
The splash screen shown in Figure 8-44 opens.

Figure 8-44 5620 SAM | 5650 CPAM installer



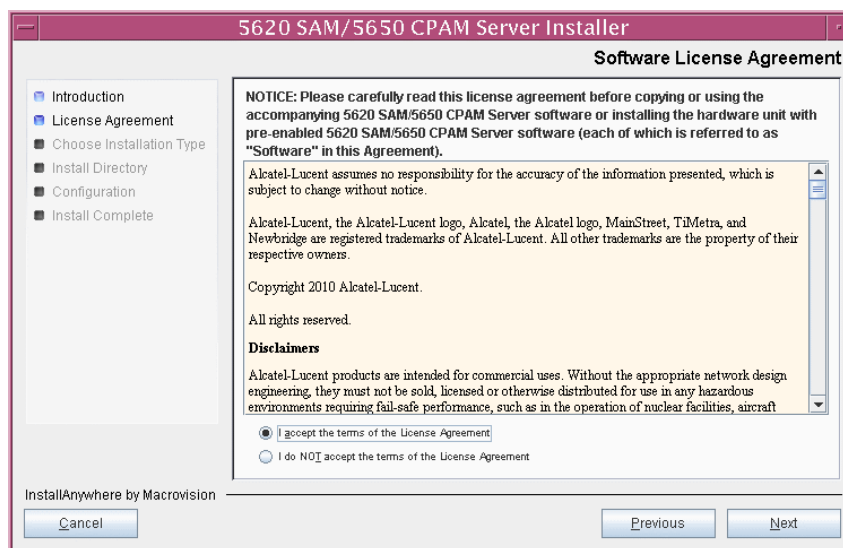
- 12 The 5650 CPAM server installer opens, as shown in Figure 8-45. The left pane indicates installation progress. The right pane displays release information about the software. Click on the Next button.

Figure 8-45 Introduction



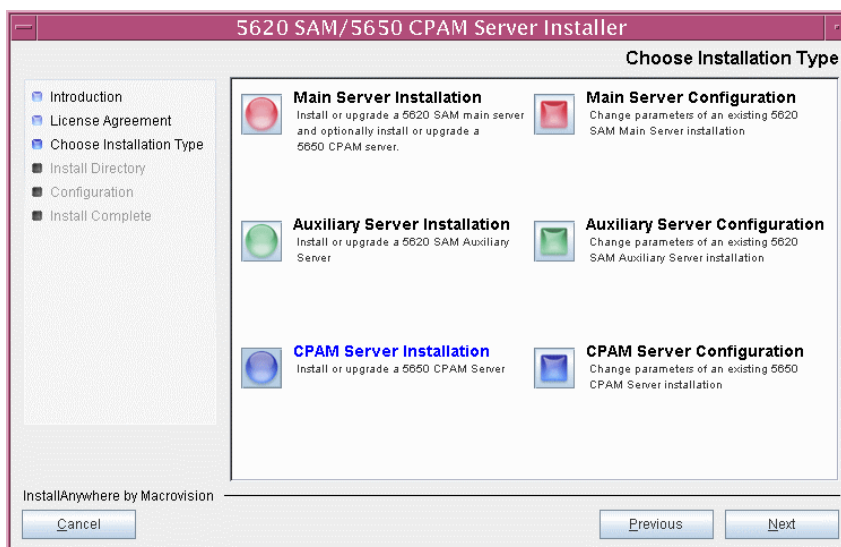
- 13 Review and accept the terms of the license agreement shown in Figure 8-46. Click on the Next button.

Figure 8-46 Software License Agreement



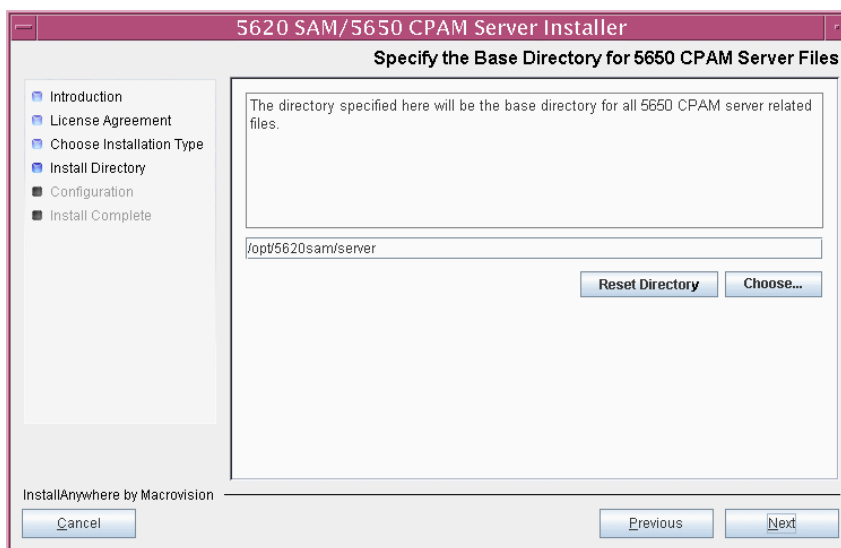
- 14 Select CPAM Server Installation, as shown in Figure 8-47. Click on the Next button.

Figure 8-47 Choose Installation Type



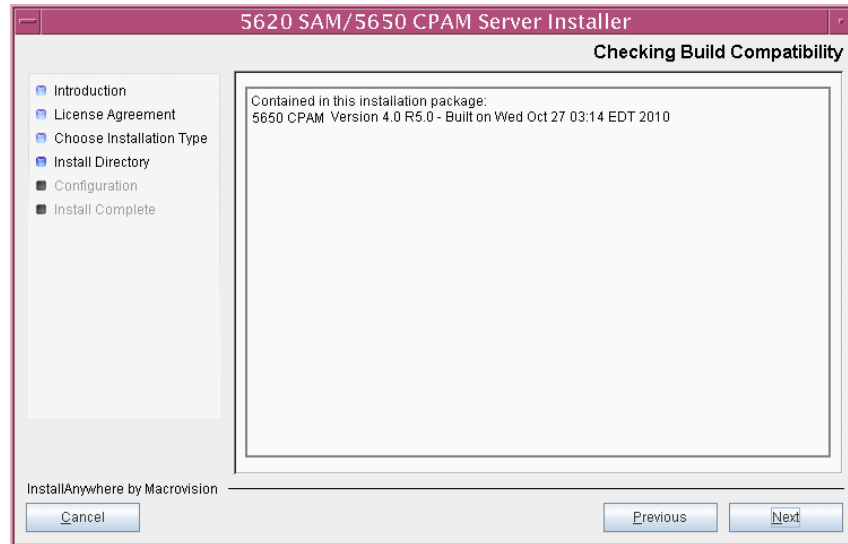
- 15 Specify a base directory in which to install the 5650 CPAM server software (typically /opt/5620sam/server), as shown in Figure 8-48. Click on the Next button.

Figure 8-48 Specify the Base Directory for 5650 CPAM Server Files



- 16 As shown in Figure 8-49, the installer indicates which release of 5650 CPAM software is currently installed and the release to which it is to be upgraded. Verify the information. Click on the Next button.

Figure 8-49 Checking Build Compatibility




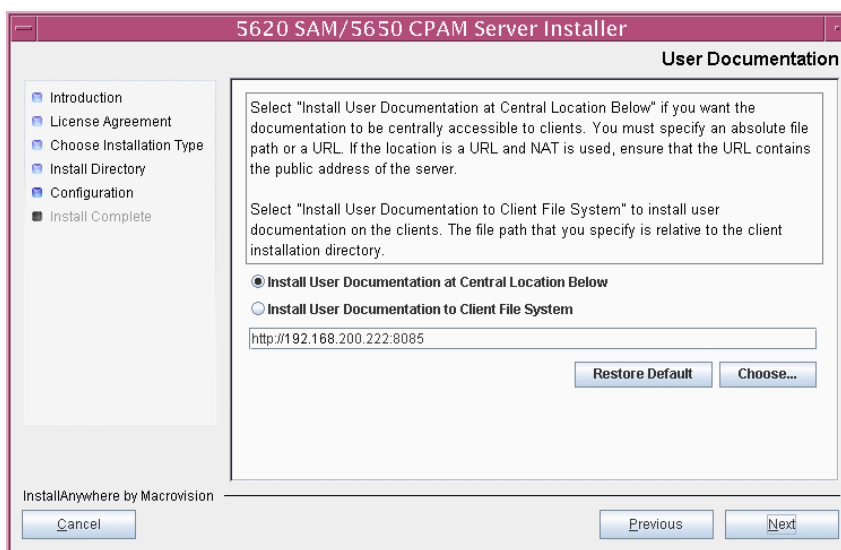
- 17 Perform one of the following to specify where the 5620 SAM and 5650 CPAM user documentation is to be stored.
    - a To store the documentation in a central location that is available to all clients, perform the following steps.
      - i Select the “Install User Documentation at Central Location Below” parameter, as shown in Figure 8-50.
      - ii To accept the default user documentation location that is displayed, go to step 18.
-  **Note** — If NAT is used between the 5620 SAM server and clients, you must update the default location using the public IP address of the server, or the documentation is not accessible to clients.
- iii Specify a location for the user documentation in the field below the parameters.
  - iv Copy the contents of the User\_Documentation directory on the new 5620 SAM | 5650 CPAM software DVD-ROM to the location specified in step iii.
  - v Click on the Next button. A dialog box appears.
  - vi Click on the OK button.

Figure 8-50 User Documentation



- b To store a copy of the documentation on the client file system, perform the following steps.

- i Select the “Install User Documentation to Client File System” parameter shown in Figure 8-50.
- ii Specify a file path relative to the 5620 SAM client installation directory. The path must not contain a leading slash.

For example, if the installation directory is /opt/5620sam/client and you specify Documents as the location, the documentation is installed in the following directory:

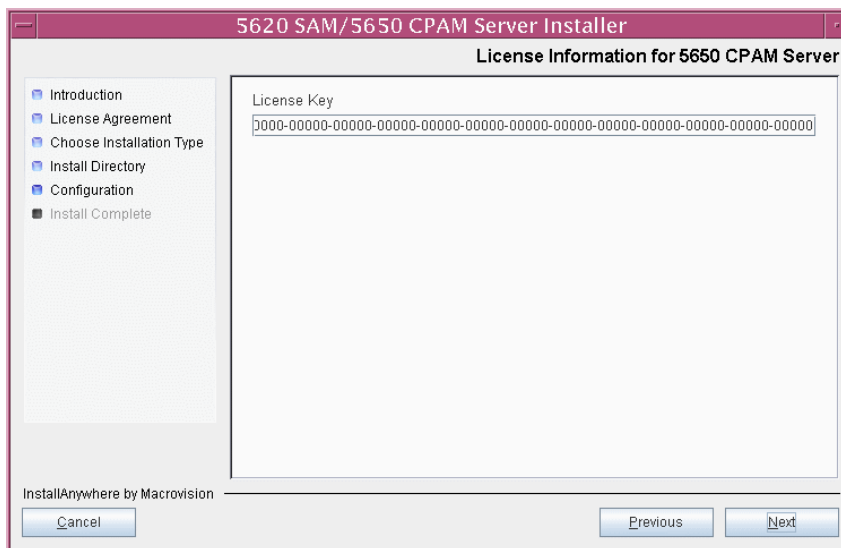
/opt/5620sam/client/Documents



**Note** — The 5620 SAM client uninstaller cannot remove the documentation unless it is installed below the nms directory in the 5620 SAM client installation directory, for example, /opt/5620sam/client/nms/Documents.

- 18 Click on the Next button.
- 19 Enter the License Key information exactly as received from Alcatel-Lucent. Include the dashes in the key, as shown in Figure 8-51. Click on the Next button.

Figure 8-51 License Information for 5650 CPAM Server





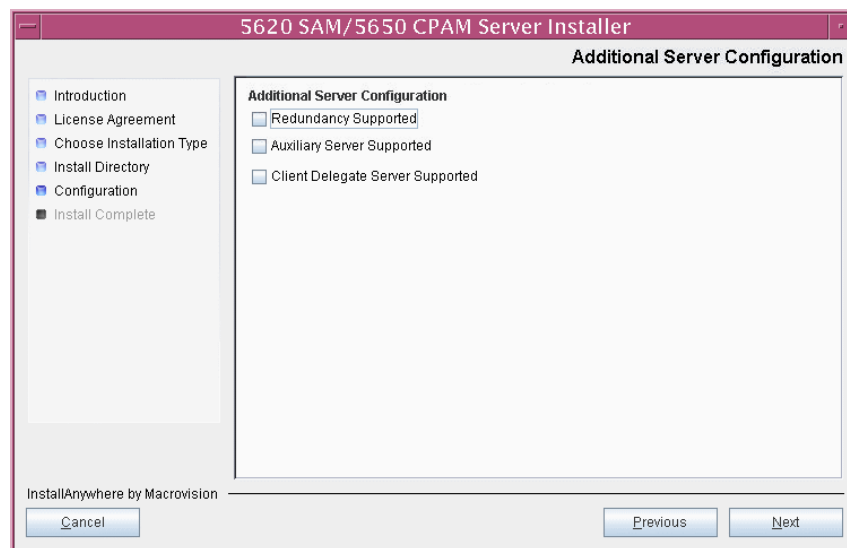
20 Configure the following parameters shown in Figure 8-52, then click on the Next button.

- Redundancy Supported
- Auxiliary Server Supported
- Client Delegate Server Supported



**Note** — You must leave the Redundancy Supported parameter unselected.

Figure 8-52 Additional Server Configuration



- 21 Configure the following parameters shown in Figure 8-53, then click on the Next button:
- Database Server IP Address
  - Database Instance Name (typically samdb)
  - Database Proxy Port (typically 9002)

Figure 8-53 Database Configuration

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window with the 'Database Configuration' tab selected. On the left is a navigation pane with the following items: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (highlighted), and Install Complete. The main area contains a text box with the instruction: 'If NAT (network address translation) is to be used, enter the 5620 SAM database's public IP address as known to the 5650 CPAM server.' Below this are three input fields: 'Database Server IP Address' (empty), 'Database Instance Name' (containing 'samdb'), and 'Database Proxy Port' (containing '9002'). At the bottom left is the text 'InstallAnywhere by Macrovision' and a 'Cancel' button. At the bottom right are 'Previous' and 'Next' buttons.

- 22 The panel in Figure 8-54 is displayed if you select “Auxiliary Server Supported” in step 20. Otherwise, go to step 23.

Perform the following steps.



**Note —** The 5620 SAM supports a maximum of one preferred and one reserved auxiliary server per 5620 SAM cluster.

- i Configure the following parameters shown in Figure 8-54:
- NAT (network address translation) Used  
Select this parameter only if NAT is to be used between the 5620 SAM main and auxiliary servers.
  - Private IP (accessible only by this server)  
You must configure this parameter if you select the NAT (network address translation) Used parameter.
  - Public IP (accessible to auxiliary)
  - Server Port (typically 12800)



**Note —** The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 8-54.

Figure 8-54 CPAM Server Configuration for Auxiliary Servers

5620 SAM/5650 CPAM Server Installer

**CPAM Server Configuration for Auxiliary Servers**

Enter the the network interface information that this 5650 CPAM server requires to communicate with the 5620 SAM auxiliary servers.

☒ NAT (network address translation) Used

Private IP (accessible only by this server) 192.168.200.111

Public IP (accessible to auxiliary)

Server Port 12800

InstallAnywhere by Macrovision

Cancel Previous Next

- ii Click on the Next button.

- 23 Perform the following steps.
- i Configure the following parameters shown in Figure 8-55:
    - Server Domain Name (typically 5620sam)  
This is an identifier that uniquely identifies the 5620 SAM servers in a 5620 SAM cluster.
    - Use Hostname for Communication  
Select this parameter if the 5650 CPAM server is to use multiple interfaces for GUI and OSS client communication.

Figure 8-55 CPAM Server Address Configuration for Clients

- ii If you select Use Hostname for Communication, go to step 23 vi.
- iii Configure the following parameters:
  - NAT (network address translation) Used
  - Private IP (accessible only by this server)
  - Public IP (accessible to clients)
  - EJB JNDI Server port (typically 1099)
  - EJB JMS Server port (typically 8093)



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 8-55.

- iv Click on the Next button.
- v Go to step 24.

vi Configure the following parameters shown in Figure 8-56:

- NAT (network address translation) Used
- Private IP (accessible only by this server)
- Public Hostname
- EJB JNDI Server port (typically 1099)
- EJB JMS Server port (typically 8093)



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 8-56.

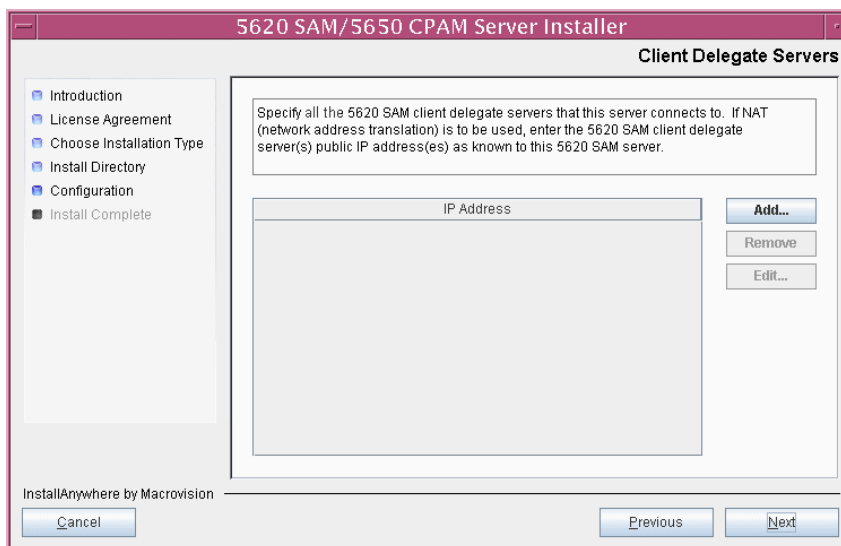
Figure 8-56 CPAM Server Address Configuration for Clients

vii Click on the Next button.

- 24 The panel in Figure 8-57 is displayed if you select “Client Delegate Server Supported” in step 20. Otherwise, go to step 25.

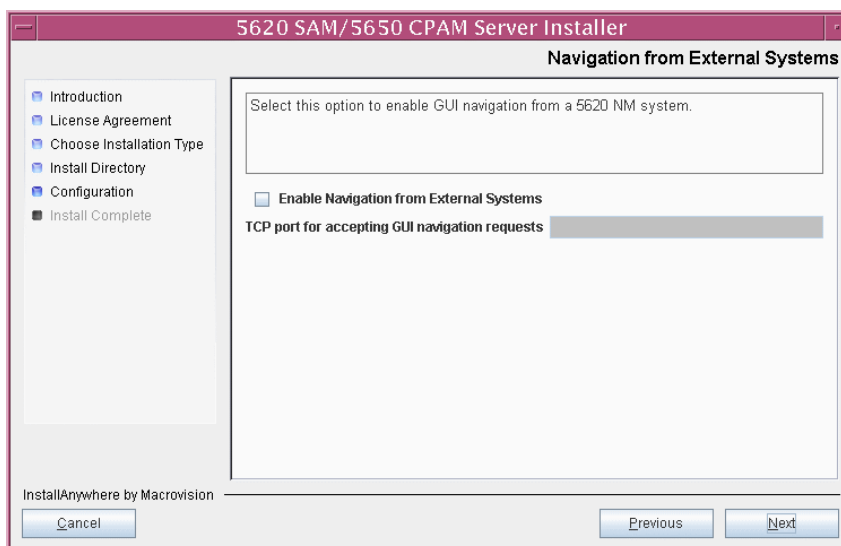
Click on the Add button to specify the client delegate server IP addresses, as required. If NAT is used between the 5620 SAM server and client delegate servers, specify the public IP address. Click on the Next button.

Figure 8-57 Client Delegate Servers



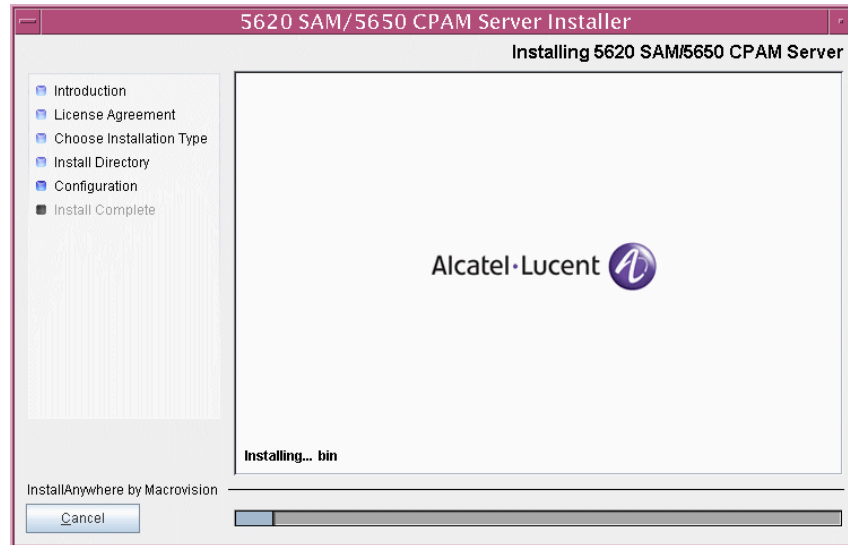
- 25 If you require 5620 SAM client navigation from a 5620 NM system, select the “Enable Navigation from External Systems” parameter shown in Figure 8-58 and specify the TCP port that the client is to use for accepting navigation requests. Click on the Next button to begin the server upgrade.

Figure 8-58 Navigation from External Systems



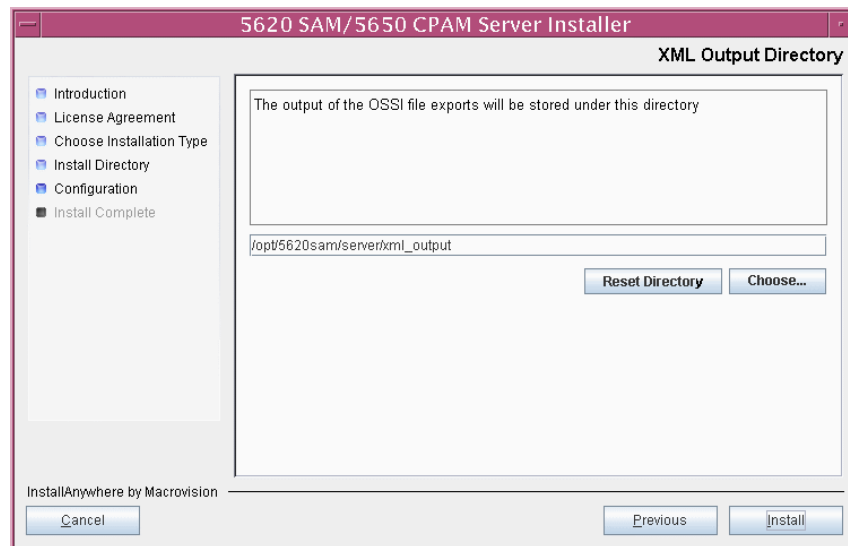
The next panel displays upgrade progress, as shown in Figure 8-59.

Figure 8-59 Installing 5620 SAM/5650 CPAM Server



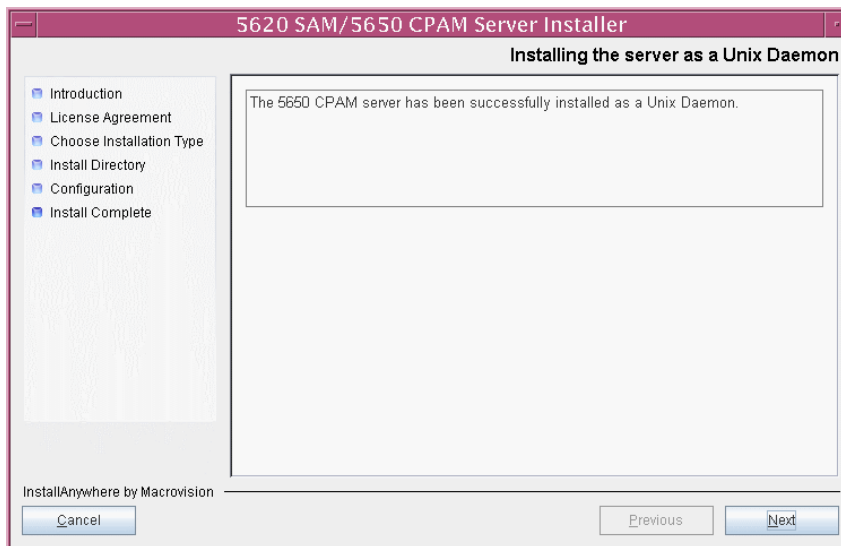
- 26 Specify an OSS XML output location (typically /opt/5620sam/server/xml\_output), as shown in Figure 8-60. Click on the Install button to begin the server upgrade.

Figure 8-60 XML Output Directory



- 27 As shown in Figure 8-61, the 5650 CPAM server is installed as a UNIX daemon. Click on the Next button.

Figure 8-61 Installing the Server as a Unix Daemon

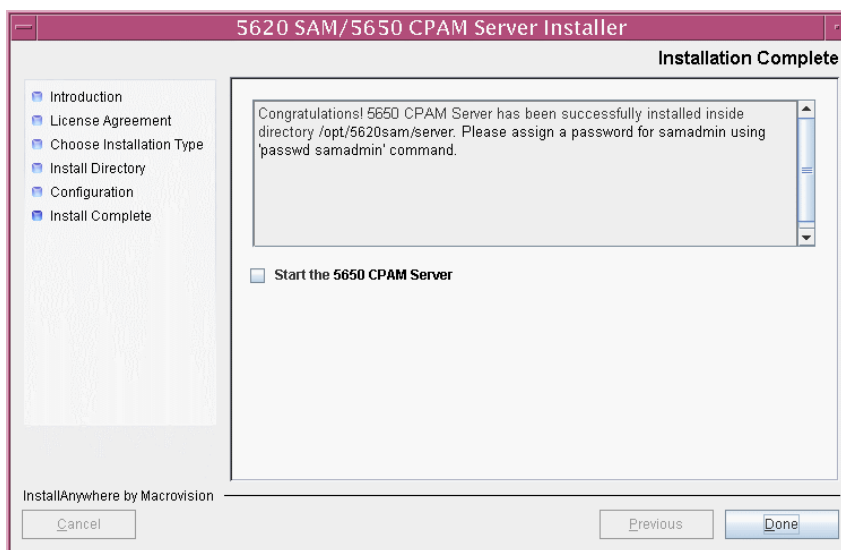


- 28 When the server upgrade is complete, as shown in Figure 8-62, configure the “Start the 5650 CPAM Server” parameter to specify whether you want the server to start immediately after the upgrade.



**Caution** — Alcatel-Lucent recommends that you do not configure the server to start immediately after an upgrade.

Figure 8-62 Installation Complete





- 29 Click on the Done button to close the server installer. If you specified that the server is to start after the upgrade, the server starts. Initial server startup can take twenty minutes or more.
- 30 If you are upgrading from 5650 CPAM Release 2.0 or earlier, the installer creates a user account called samadmin that is required for 5650 CPAM system administration. You must assign a new password to this user account.

Perform the following steps to assign a new samadmin password.

- i Enter the following at the CLI prompt:

```
passwd samadmin
```

The following prompt is displayed:

```
New Password:
```

- ii Enter the new password and press ↵.

The following prompt is displayed:

```
Confirm New Password:
```

- iii Enter the new password again and press ↵. The password is changed.
- iv Record the new password and store it in a secure location.

- 31 Restart each currently open 5620 SAM GUI client that connects to the 5620 SAM/5650 CPAM server.



**Note** — The new 5650 CPAM functionality is not visible in a client GUI until the client is restarted.

- 32 Upgrade the 7701 CPAA.



**Note** — You can use the 5650 CPAM or the 5620 SAM to upgrade the 7701 CPAA, or you can upgrade the CPAA independently during a 5620 SAM upgrade to save time.

- 33 Use the upgraded 5650 CPAM to administratively turn up each 7701 CPAA TCP connection to the 5650 CPAM. After this step, each TCP connection between the 5650 CPAM and each 7701 CPAA is operationally up.
-

## Procedure 8-4 To upgrade a redundant 5650 CPAM system

---

Perform this procedure to upgrade the 5650 CPAM software on a Solaris station in a redundant deployment. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



**Note 1** — You must perform this procedure on each 5650 CPAM station in the redundant deployment.

**Note 2** — You require root or root-equivalent user privileges on the 5650 CPAM station to perform this procedure.

**Note 3** — Command-line examples use the following to represent the Solaris CLI prompt:

- #—represents the prompt for a root or root-equivalent user

Do not type the # symbol when entering a command.

- 1 Use the 5650 CPAM to set a reference for each IGP routing domain, for example, OSPF areas, and IS-IS Level 1 and Level 2 domains. See the *5650 CPAM User Guide* for information about setting a reference.
- 2 Use the 5650 CPAM to set a checkpoint for each IGP routing domain, for example, OSPF areas, and IS-IS Level 1 and Level 2 domains. See the *5650 CPAM User Guide* for information about setting a checkpoint.
- 3 Ensure that each 7701 CPAA TCP connection to the 5650 CPAM is administratively and operationally up.
- 4 Use the 5650 CPAM to back up the 7701 CPAA configuration. See the *5650 CPAM User Guide* for information about backing up a 7701 CPAA configuration.
- 5 Stop the 5650 CPAM server application.



**Note 1** — When you stop the 5650 CPAM server application, you also stop the 5620 SAM server application.

**Note 2** — Because the CLI prompts for the samadmin and root or root-equivalent users differ, no CLI prompts are shown in the step text.

- i Log in to the server station as the appropriate user:
  - If you are upgrading from 5650 CPAM Release 2.0 or later, you must log in as the samadmin user.
  - If you are upgrading from a 5650 CPAM release earlier than 2.0, you must log in as a root or root-equivalent user.
- ii Open a console window.
- iii Enter the following at the CLI prompt to change to the server binary directory:

```
cd path/nms/bin .
```

where *path* is the 5650 CPAM server installation location, typically /opt/5620sam/server

- iv Enter the following at the CLI prompt to stop the 5650 CPAM server software:  

```
./nmserver.bash stop ↵
```
  - v Enter the following at the CLI prompt to display the 5650 CPAM server status:  

```
./nmserver.bash appserver_status ↵
```

The command displays a status message.
  - vi The 5650 CPAM server is stopped when the command displays the following status message:  

```
Application Server is stopped
```

If the command displays a different message, wait 5 m and repeat step 5 v. Do not proceed to the next step until the server is stopped.
- 6 Perform one of the following.
    - a Upgrade the 5650 CPAM server as part of a 5620 SAM system upgrade.
      - i Perform the appropriate 5620 SAM upgrade procedures in chapter 4.
      - ii Perform step 39 in this procedure.
    - b Upgrade the 5650 CPAM server using this procedure.
  - 7 Log in to the 5650 CPAM station as a user with root or root-equivalent privileges.
  - 8 Open a console window.
  - 9 Place the new 5620 SAM | 5650 CPAM software DVD-ROM in a DVD-ROM drive.
  - 10 Navigate to the DVD-ROM drive.

11 Perform one of the following to open the 5620 SAM | 5650 CPAM server installer.

a On a Sun SPARC station:

i Enter the following at the CLI prompt:

```
cd Solaris ↵
```

ii Enter the following at the CLI prompt:

```
./ServerInstall_SAM_8_0_revision.bin ↵
```

where

*revision* is the revision identifier, such as R1, R3, or another descriptor

b On a Sun X86-based station:

i Enter the following at the CLI prompt:

```
cd Solarisx86 ↵
```

ii Enter the following at the CLI prompt:

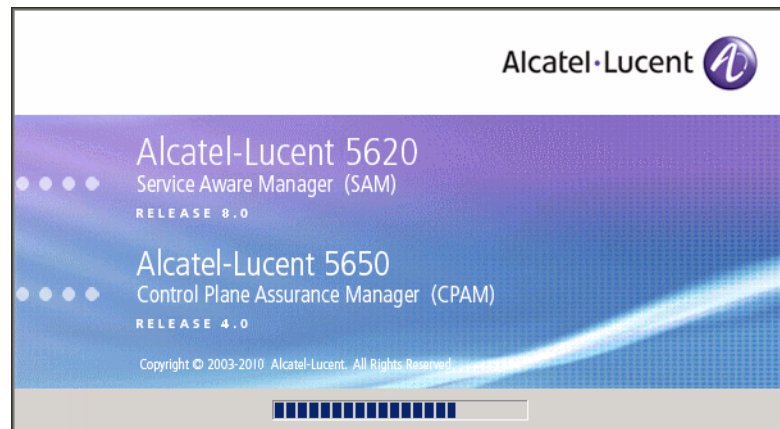
```
./ServerInstall_x86_SAM_8_0_revision.bin ↵
```

where

*revision* is the revision identifier, such as R1, R3, or another descriptor

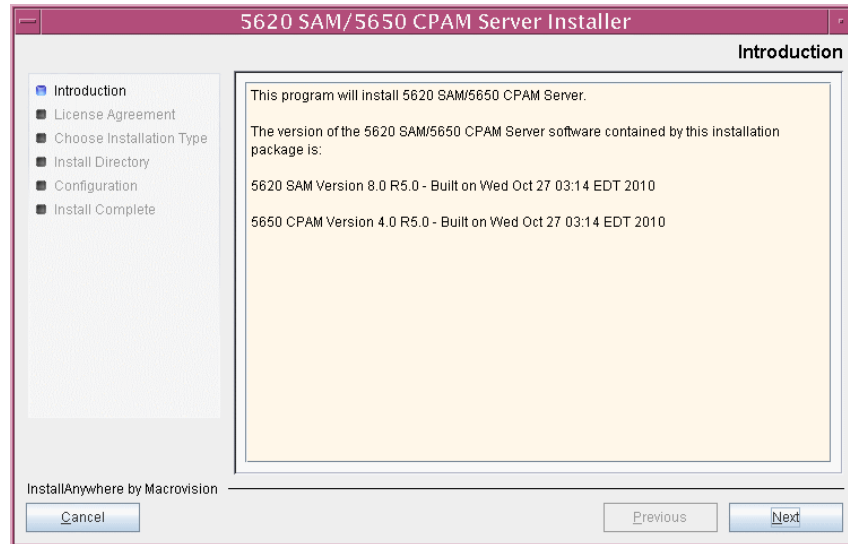
The splash screen shown in Figure 8-63 opens.

Figure 8-63 5620 SAM | 5650 CPAM installer



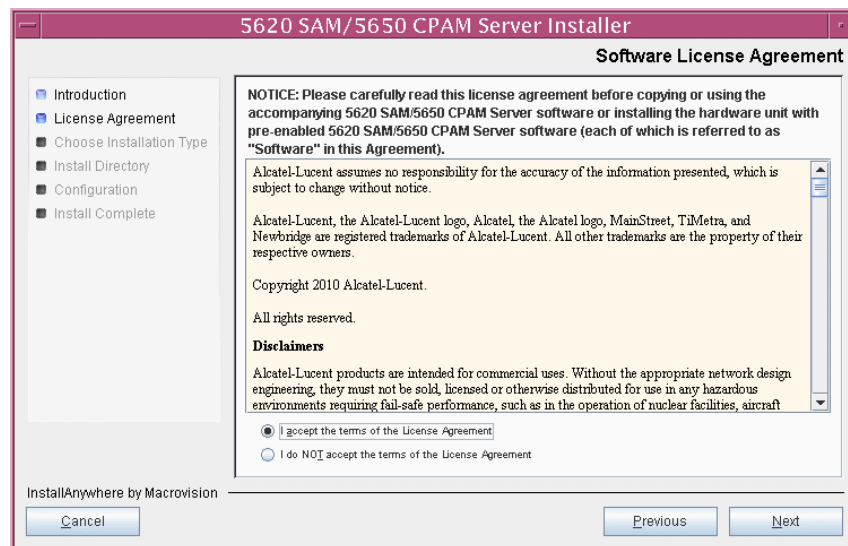
- 12 The 5650 CPAM server installer opens, as shown in Figure 8-64. The left pane indicates installation progress. The right pane displays release information about the software. Click on the Next button.

Figure 8-64 Introduction



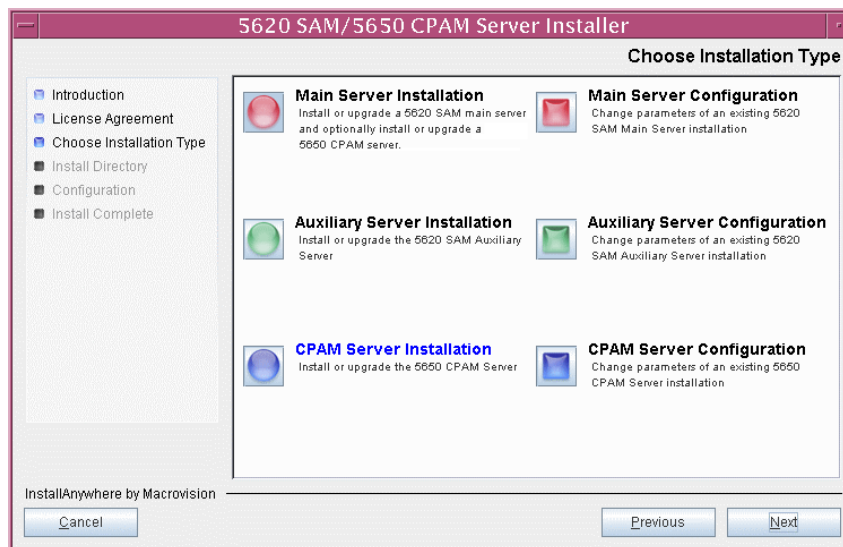
- 13 Review and accept the terms of the license agreement shown in Figure 8-65. Click on the Next button.

Figure 8-65 Software License Agreement



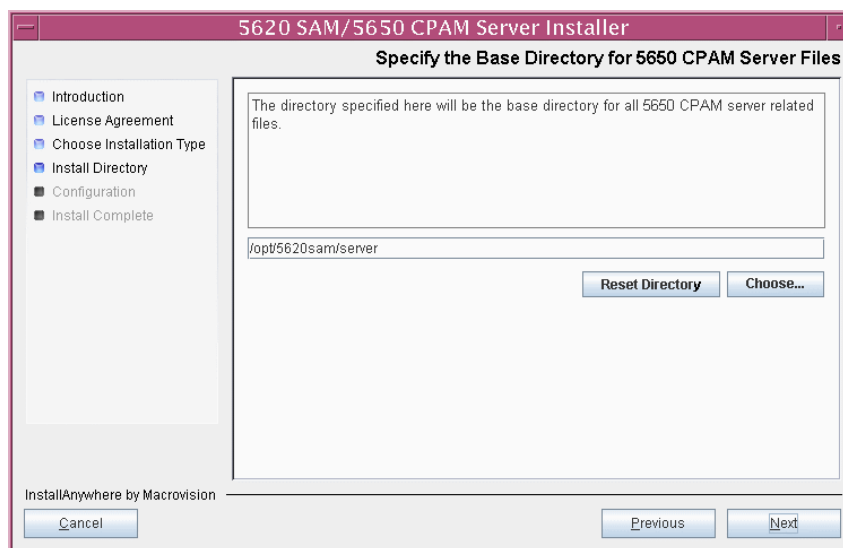
- 14 Select CPAM Server Installation, as shown in Figure 8-66. Click on the Next button.

Figure 8-66 Choose Installation Type



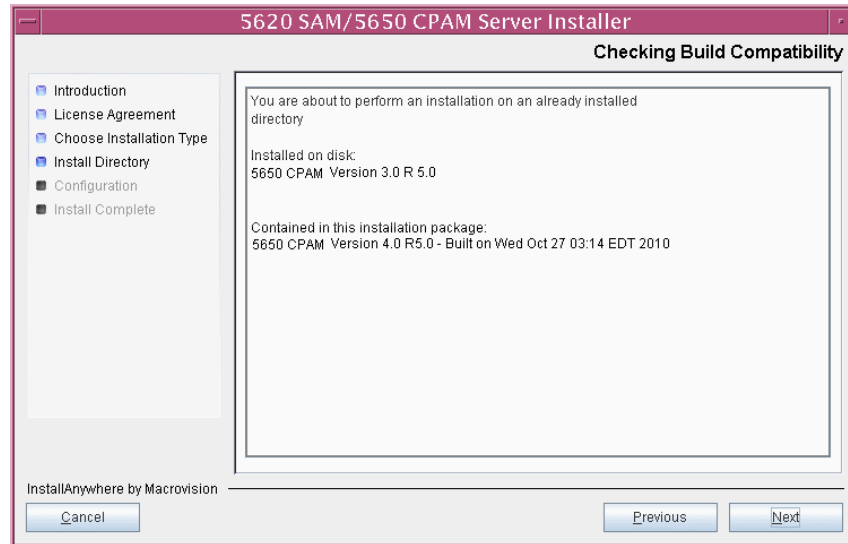
- 15 Specify a base directory in which to install the 5650 CPAM server software (typically /opt/5620sam/server), as shown in Figure 8-67. Click on the Next button.

Figure 8-67 Specify the Base Directory for 5650 CPAM Server Files



- 16 As shown in Figure 8-68, the installer indicates which release of 5650 CPAM software is currently installed and the release to which it is to be upgraded. Verify the information. Click on the Next button.

Figure 8-68 Checking Build Compatibility



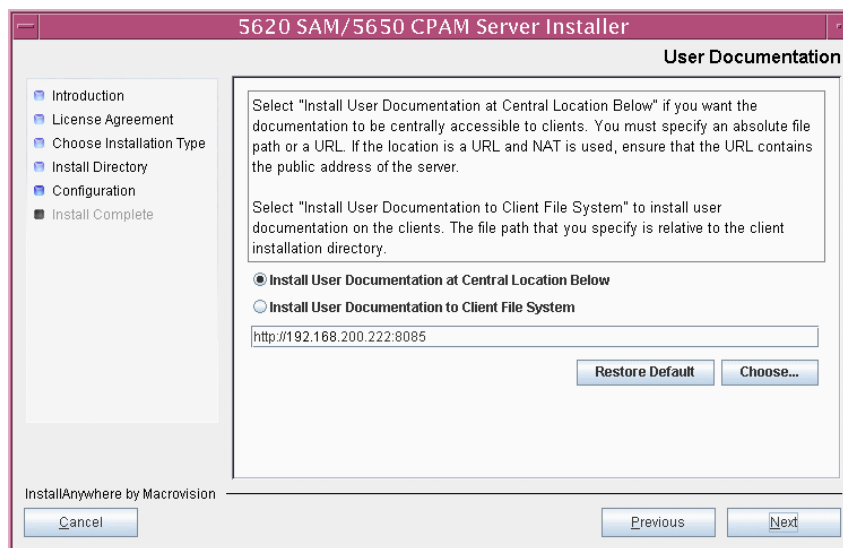
- 17 Perform one of the following to specify where the 5620 SAM and 5650 CPAM user documentation is to be stored.
  - a To store the documentation in a central location that is available to all clients, perform the following steps.
    - i Select the “Install User Documentation at Central Location Below” parameter, as shown in Figure 8-69.
    - ii To accept the default user documentation location that is displayed, go to step 18.



**Note —** If NAT is used between the 5620 SAM server and clients, you must update the default location using the public IP address of the server, or the documentation is not accessible to clients.

- iii Specify a location for the user documentation in the field below the parameters.
- iv Copy the contents of the User\_Documentation directory on the new 5620 SAM | 5650 CPAM software DVD-ROM to the location specified in step iv.
- v Click on the Next button. A dialog box appears.
- vi Click on the OK button.

Figure 8-69 User Documentation





- b To store a copy of the documentation on the client file system, perform the following steps.
  - i Select the “Install User Documentation to Client File System” parameter shown in Figure 8-69.
  - ii Specify a file path relative to the 5620 SAM client installation directory. The path must not contain a leading slash.

For example, if the installation directory is /opt/5620sam/client and you specify Documents as the location, the documentation is installed in the following directory:

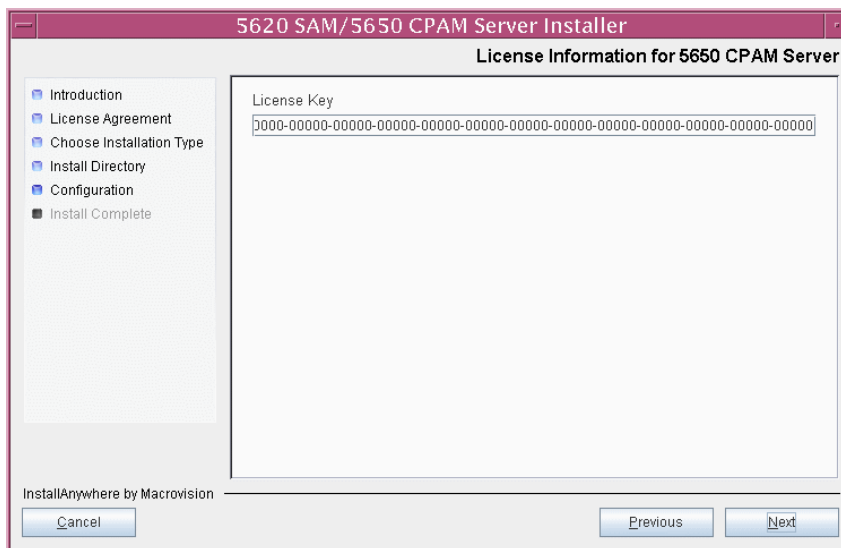
/opt/5620sam/client/Documents



**Note** — The 5620 SAM client uninstaller cannot remove the documentation unless it is installed below the nms directory in the 5620 SAM client installation directory, for example, /opt/5620sam/client/nms/Documents.

- 18 Click on the Next button.
- 19 Enter the License Key information exactly as received from Alcatel-Lucent. Include the dashes in the key, as shown in Figure 8-70. Click on the Next button.

Figure 8-70 License Information for 5650 CPAM Server



- 20 Configure the following parameters shown in Figure 8-71, then click on the Next button.

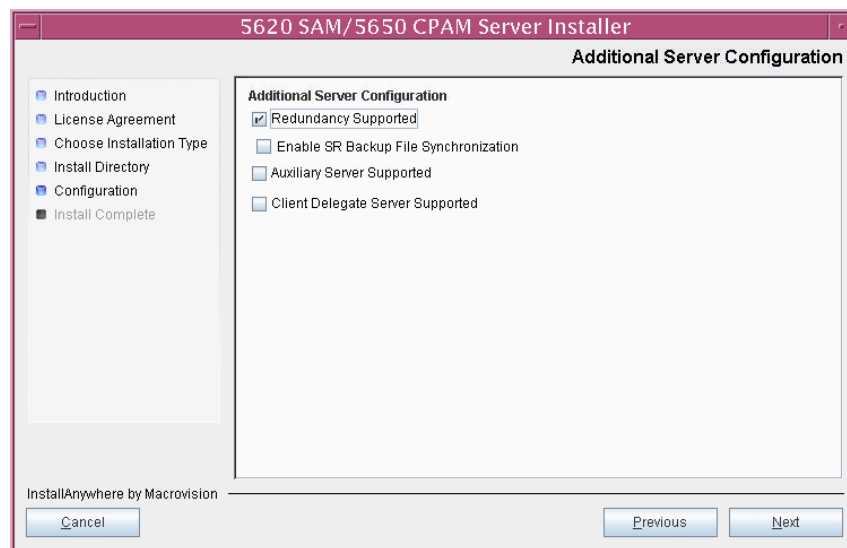
- Redundancy Supported
- Enable SR Backup File Synchronization
- Auxiliary Server Supported
- Client Delegate Server Supported



**Note 1** — You must select the Redundancy Supported parameter.

**Note 2** — The Enable SR Backup File Synchronization parameter is displayed only when the Redundancy Supported parameter is enabled.

Figure 8-71 Additional Server Configuration



- 21 Configure the following parameters shown in Figure 8-72. Click on the Next button.
- Primary Database Server IP Address
  - Primary Database Server Port (typically 1523)
  - Primary Database Instance Name (typically samdb1)
  - Database User Name (typically samuser)
  - Database User Password
  - Primary Database Proxy Port (typically 9002)

Figure 8-72 Primary Database Configuration

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window with the 'Primary Database Configuration' tab selected. On the left is a navigation pane with the following items: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (highlighted), and Install Complete. The main area contains a text box with instructions: 'If NAT (network address translation) is to be used, enter the primary 5620 SAM database's public IP address as known to the 5650 CPAM server.' Below this are five input fields: 'Primary Database Server IP Address' (empty), 'Primary Database Server Port' (1523), 'Primary Database Instance Name' (samdb1), 'Database User Name' (samuser), and 'Database User Password' (masked with asterisks). The 'Primary Database Proxy Port' field contains 9002. At the bottom left is the text 'InstallAnywhere by Macrovision' and a 'Cancel' button. At the bottom right are 'Previous' and 'Next' buttons.

- 22 Configure the following parameters shown in Figure 8-73, then click on the Next button:
- Database Server IP Address
  - Database Instance Name (typically samdb2)
  - Database Proxy Port (typically 9002)

Figure 8-73 Standby Database Configuration

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window with the 'Standby Database Configuration' tab selected. On the left is a navigation pane with the following items: Introduction, License Agreement, Choose Installation Type, Install Directory, Configuration (highlighted), and Install Complete. The main area contains a text box with the instruction: 'If NAT (network address translation) is to be used, enter the standby 5620 SAM database's public IP address as known to the 5650 CPAM server.' Below this are three input fields: 'Database Server IP Address' (empty), 'Database Instance Name' (containing 'samdb2'), and 'Database Proxy Port' (containing '9002'). At the bottom left is the text 'InstallAnywhere by Macrovision' and a 'Cancel' button. At the bottom right are 'Previous' and 'Next' buttons.

- 23 The panel in Figure 8-74 is displayed if you select “Auxiliary Server Supported” in step 20. Otherwise, go to step 24.

Perform the following steps.



**Note —** The 5620 SAM supports a maximum of one preferred and one reserved auxiliary server per 5620 SAM cluster.

- i Configure the following parameters shown in Figure 8-74:
- NAT (network address translation) Used  
Select this parameter only if NAT is to be used between the 5620 SAM main and auxiliary servers.
  - Private IP (accessible only by this server)  
You must configure this parameter if you select the NAT (network address translation) Used parameter.
  - Public IP (accessible to auxiliary)
  - Server Port (typically 12800)



**Note —** The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 8-74.

Figure 8-74 CPAM Server Configuration for Auxiliary Servers

5620 SAM/5650 CPAM Server Installer

**CPAM Server Configuration for Auxiliary Servers**

Enter the the network interface information that this 5650 CPAM server requires to communicate with the 5620 SAM auxiliary servers.

☒ NAT (network address translation) Used

Private IP (accessible only by this server) 192.168.200.111

Public IP (accessible to auxiliary)

Server Port 12800

InstallAnywhere by Macrovision

Cancel Previous Next

- ii Click on the Next button.

## 24 Perform the following steps.

- i Configure the following parameters shown in Figure 8-75:
  - Server Domain Name (typically 5620sam)  
This is an identifier that uniquely identifies the 5620 SAM servers in a 5620 SAM cluster.
  - Use Hostname for Communication  
Select this parameter if the 5650 CPAM server is to use multiple interfaces for GUI and OSS client communication.

Figure 8-75 CPAM Server Address Configuration for Clients

- ii If you select the Use Hostname for Communication parameter, go to step 24 vi.
- iii Configure the following parameters:
  - NAT (network address translation) Used
  - Private IP (accessible only by this server)
  - Public IP (accessible to clients)
  - EJB JNDI Server port (typically 1099)
  - EJB JMS Server port (typically 8093)



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 8-75.

- iv Click on the Next button.
- v Go to step 25.

vi Configure the following parameters shown in Figure 8-76:

- NAT (network address translation) Used
- Private IP (accessible only by this server)
- Public Hostname
- EJB JNDI Server port (typically 1099)
- EJB JMS Server port (typically 8093)



**Note** — The Private IP parameter is displayed only when the NAT (network address translation) Used parameter is selected, as shown in Figure 8-75.

Figure 8-76 CPAM Server Address Configuration for Clients

5620 SAM/5650 CPAM Server Installer

**CPAM Server Address Configuration for Clients**

Enter the network interface information that this 5650 CPAM server requires to communicate with the GUI and OSS clients.

If multiple addresses are to be used for communication with GUI clients, OSS clients, and auxiliary servers, a hostname must be provided for the Public Hostname field.

Server Domain Name

☒ Use Hostname for Communication

☒ NAT (network address translation) Used

Private IP (accessible only by this server)

Public Hostname

EJB JNDI Server port

EJB JMS Server port

InstallAnywhere by Macrovision

vii Click on the Next button.

25 Configure the following parameters shown in Figure 8-77:

- Public IP (visible to peer server)
- High Available JNDI Port (typically 1100)
- TCP Port Cluster Number (typically 11800)

If NAT is used between this 5650 CPAM server and the peer 5650 CPAM server, select the “NAT (network address translation) Used” parameter and enter the private IP address of the server. Click on the Next button.

Figure 8-77 CPAM Server Address Configuration

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window. The title bar is purple with the text '5620 SAM/5650 CPAM Server Installer'. The main window has a purple header bar with the text 'CPAM Server Address Configuration'. On the left side, there is a vertical list of steps: 'Introduction', 'License Agreement', 'Choose Installation Type', 'Install Directory', 'Configuration', and 'Install Complete'. The 'Configuration' step is currently selected. The main area of the window contains a text box with the instruction: 'Enter the the network interface information that the 5650 CPAM server will use to communicate with the peer server.' Below this text box are three input fields: 'Public IP (visible to peer server)' (empty), 'High Available JNDI Port' (containing '1100'), and 'TCP Port Cluster Number' (containing '11800'). Below these fields is a checkbox labeled 'NAT (network address translation) Used', which is currently unchecked. Below the checkbox is a text box labeled 'Private IP (accessible only by this server)' which is empty. At the bottom of the window, there is a footer bar with the text 'InstallAnywhere by Macrovision' on the left and three buttons: 'Cancel', 'Previous', and 'Next' on the right.



26 Configure the following parameters shown in Figure 8-78, then click on the Next button:

- Peer Server IP Address
- Peer Server Trap Log Id (typically 98)
- Peer Server SNMP Trap Receiving IP Address
- Peer Server SNMP Port Number (typically 162)
- Peer Server TCP Port Cluster Number (typically 11800)

Figure 8-78 Peer CPAM Server Configurations

The screenshot shows the '5620 SAM/5650 CPAM Server Installer' window. The title bar is purple. The main window has a sidebar on the left with a tree view containing: Introduction (selected), License Agreement, Choose Installation Type, Install Directory, Configuration, and Install Complete. The main area is titled 'Peer CPAM Server Configurations'. It contains a text box with instructions: 'If NAT (network address translation) is to be used, enter the 5650 CPAM peer server's public IP address as known to the 5650 CPAM server. Also enter the 5650 CPAM peer server's public IP address as known to the devices within the managed network.' Below this are five input fields: 'Peer Server IP Address' (empty), 'Peer Server Trap Log Id' (98), 'Peer Server SNMP Trap Receiving IP Address' (empty), 'Peer Server SNMP Trap Receiving Port' (162), and 'Peer Server TCP Port Cluster Number' (11800). At the bottom, there is a 'Cancel' button, a 'Previous' button, and a 'Next' button. The text 'InstallAnywhere by Macrovision' is visible in the bottom left corner.

27 If you selected the Use Hostname for Communication parameter in step 24, go to step 29.

- 28 Configure the following parameters shown in Figure 8-79, then click on the Next button:
- 5620 SAM Peer Server IP Address
  - 5620 SAM JNDI High Available Peer Server Port (typically 1100)
  - 5620 SAM JNDI Peer Server Port (typically 1099)

Figure 8-79 Peer CPAM Server Configurations (cont.)

**5620 SAM/5650 CPAM Server Installer**

**Peer CPAM Server Configurations (cont.)**

Enter the IP address of the network interface the GUI and OSS clients require to communicate with the peer server. If NAT (network address translation) is to be used, specify the public IP address as known to the 5620 SAM clients.

If multiple addresses are to be used for communication with GUI clients, OSS clients, and auxiliary servers, a hostname must be provided for the 5620 SAM Peer Server Hostname field.

5620 SAM Peer Server IP Address

5620 SAM JNDI High Available Peer Server Port

5620 SAM JNDI Peer Server Port

InstallAnywhere by Macrovision

- 29 Configure the following parameters shown in Figure 8-80, then click on the Next button:
- 5620 SAM Peer Server Hostname
  - 5620 SAM JNDI High Available Peer Server Port (typically 1100)
  - 5620 SAM JNDI Peer Server Port (typically 1099)

Figure 8-80 Peer CPAM Server Configurations (cont.)

**5620 SAM/5650 CPAM Server Installer**

**Peer CPAM Server Configurations (cont.)**

Enter the IP address of the network interface the GUI and OSS clients require to communicate with the peer server. If NAT (network address translation) is to be used, specify the public IP address as known to the 5620 SAM clients.

If multiple addresses are to be used for communication with GUI clients, OSS clients, and auxiliary servers, a hostname must be provided for the 5620 SAM Peer Server Hostname field.

5620 SAM Peer Server Hostname

5620 SAM JNDI High Available Peer Server Port

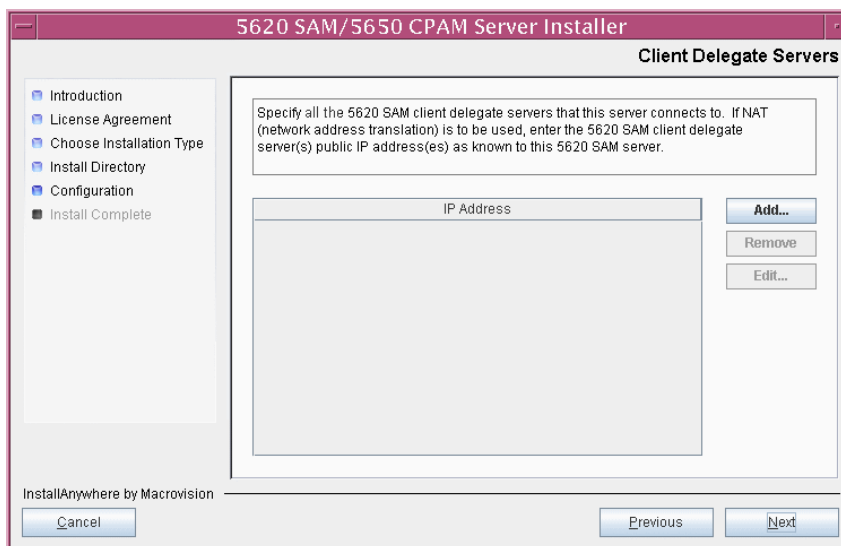
5620 SAM JNDI Peer Server Port

InstallAnywhere by Macrovision

- 30 The panel in Figure 8-81 is displayed if you select “Client Delegate Server Supported” in step 20. Otherwise, go to step 31.

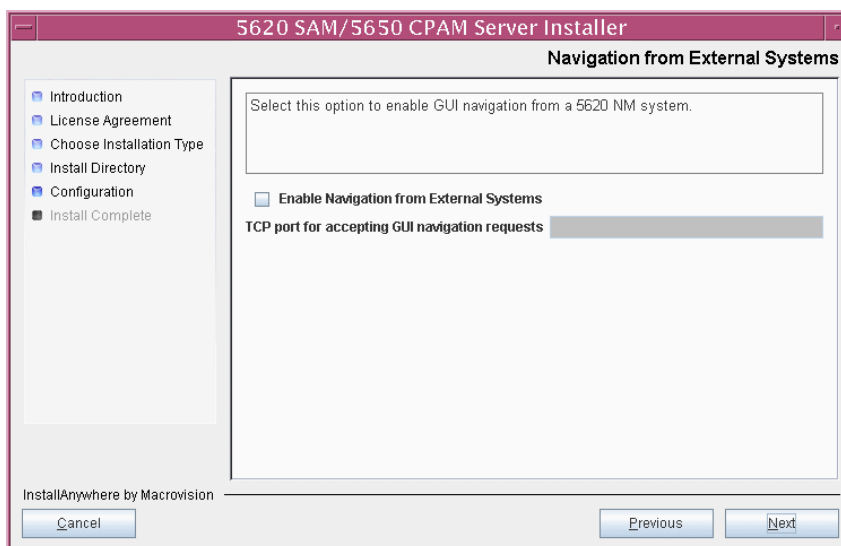
Click on the Add button to specify the client delegate server IP addresses, as required. If NAT is used between the 5620 SAM server and client delegate servers, specify the public IP address. Click on the Next button.

Figure 8-81 Client Delegate Servers



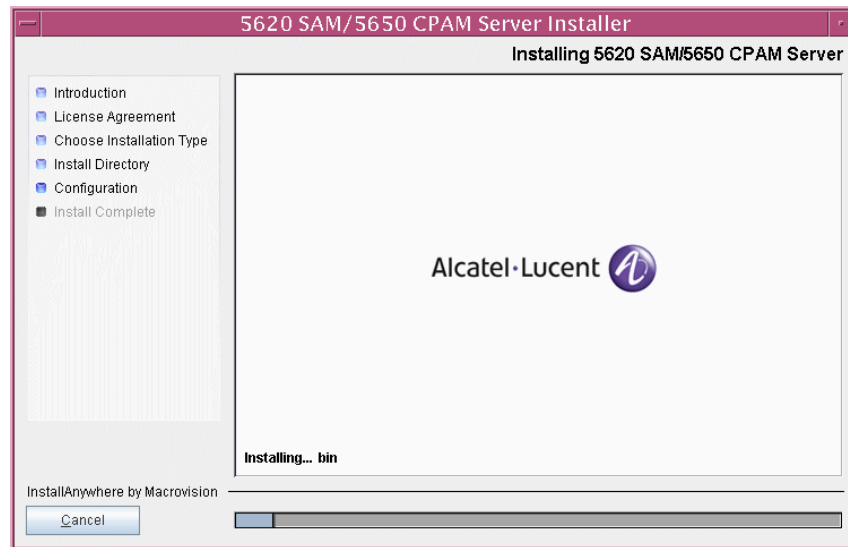
- 31 If you require 5620 SAM client navigation from a 5620 NM system, select the “Enable Navigation from External Systems” parameter shown in Figure 8-82 and specify the TCP port that the client is to use for accepting navigation requests. Click on the Next button to begin the server upgrade.

Figure 8-82 Navigation from External Systems



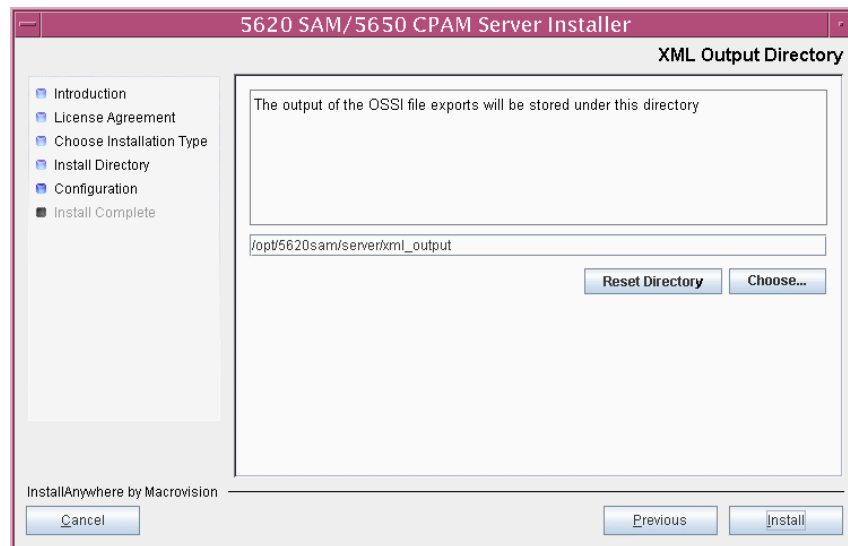
The next panel displays upgrade progress, as shown in Figure 8-83.

Figure 8-83 Installing 5620 SAM/5650 CPAM Server



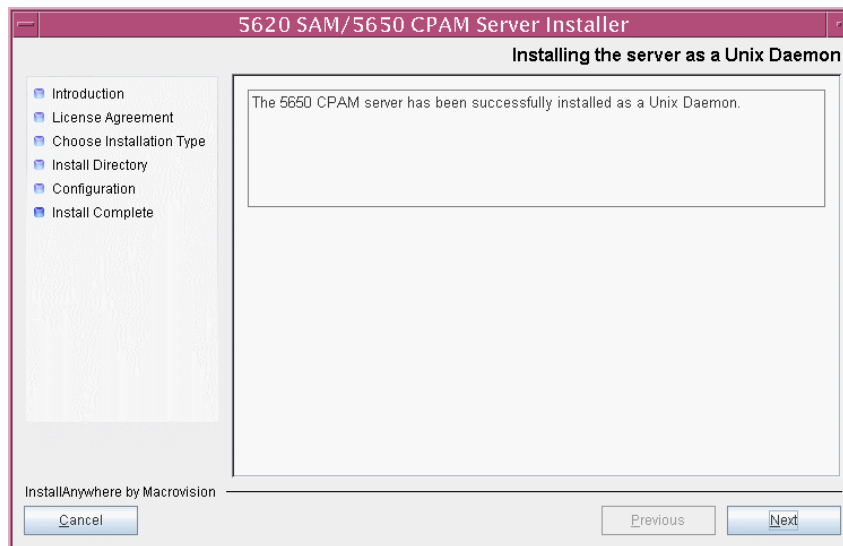
- 32 Specify an OSS XML output location (typically /opt/5620sam/server/xml\_output), as shown in Figure 8-84. Click on the Install button to begin the server upgrade.

Figure 8-84 XML Output Directory



- 33 As shown in Figure 8-85, the 5650 CPAM server is installed as a UNIX daemon. Click on the Next button.

Figure 8-85 Installing the Server as a Unix Daemon

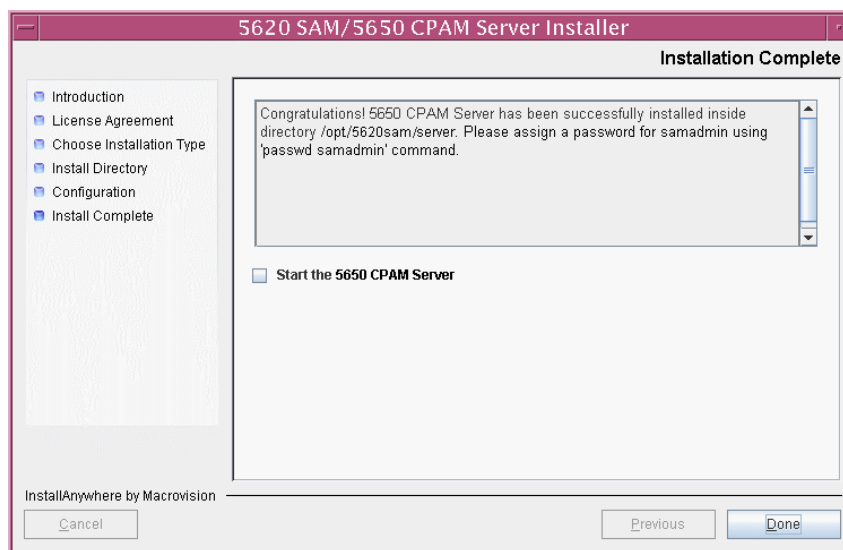


- 34 When the server upgrade is complete, as shown in Figure 8-86, configure the “Start the 5650 CPAM Server” parameter to specify whether you want the server to start immediately after the upgrade.



**Caution** — Alcatel-Lucent recommends that you do not configure the server to start immediately after an upgrade.

Figure 8-86 Installation Complete



- 35 Click on the Done button to close the server installer. If you specified that the server is to start after the upgrade, the server starts. Initial server startup can take twenty minutes or more.
- 36 If you are upgrading from 5650 CPAM Release 2.0 or earlier, the installer creates a user account called samadmin that is required for 5650 CPAM system administration. You must assign a new password to this user account.

Perform the following steps to assign a new samadmin password.

- i Enter the following at the CLI prompt:

```
passwd samadmin
```

The following prompt is displayed:

```
New Password:
```

- ii Enter the new password and press ↵.

The following prompt is displayed:

```
Confirm New Password:
```

- iii Enter the new password again and press ↵. The password is changed.
- iv Record the new password and store it in a secure location.

- 37 Restart each currently open 5620 SAM GUI client that connects to the 5620 SAM/5650 CPAM server.



**Note** — The new 5650 CPAM functionality is not visible in a client GUI until the client is restarted.

- 38 Upgrade the 7701 CPAA.



**Note** — You can use the 5650 CPAM or the 5620 SAM to upgrade the 7701 CPAA, or you can upgrade the CPAA independently during a 5620 SAM upgrade to save time.

- 39 Use the upgraded 5650 CPAM to administratively turn up each 7701 CPAA TCP connection to the 5650 CPAM. After this step, each TCP connection between the 5650 CPAM and each 7701 CPAA is operationally up.
-

## 8.5 5650 CPAM server uninstallation

This section describes how to uninstall the 5650 CPAM software.

### Procedure 8-5 To uninstall the 5650 CPAM software

---

Perform this procedure to remove the 5650 CPAM software.



**Caution** — This procedure involves stopping the 5650 CPAM server software. Ensure that you perform this procedure only during a scheduled maintenance period.



**Note 1** — Command-line examples use the following to represent the Solaris CLI prompt:

- #—represents the prompt for a root or root-equivalent user

Do not type the # symbol when entering a command.

**Note 2** — You require root or root-equivalent user privileges on the 5650 CPAM station to perform this procedure.

- 1 Stop the 5650 CPAM server application.



**Note 1** — When you stop the 5650 CPAM server application, you also stop the 5620 SAM server application.

**Note 2** — Because the CLI prompts for the samadmin and root or root-equivalent users differ, no CLI prompts are shown in the step text.

- i Log in to the server station as the appropriate user:
  - If you are upgrading from 5650 CPAM Release 2.0 or later, you must log in as the samadmin user.
  - If you are upgrading from a 5650 CPAM release earlier than 2.0, you must log in as a root or root-equivalent user.
- ii Open a console window.
- iii Enter the following at the CLI prompt to change to the server binary directory:  
  

```
cd path/nms/bin ↵
```

where *path* is the 5650 CPAM server installation location, typically /opt/5620sam/server
- iv Enter the following at the CLI prompt to stop the 5650 CPAM server software:  
  

```
./nmsserver.bash stop ↵
```
- v Enter the following at the CLI prompt to display the 5650 CPAM server status:  
  

```
./nmsserver.bash appserver_status ↵
```



The command displays a status message.

- vi The 5650 CPAM server is stopped when the command displays the following status message:

Application Server is stopped

If the command displays a different message, wait 5 m and repeat step 1 v. Do not proceed to the next step until the server is stopped.

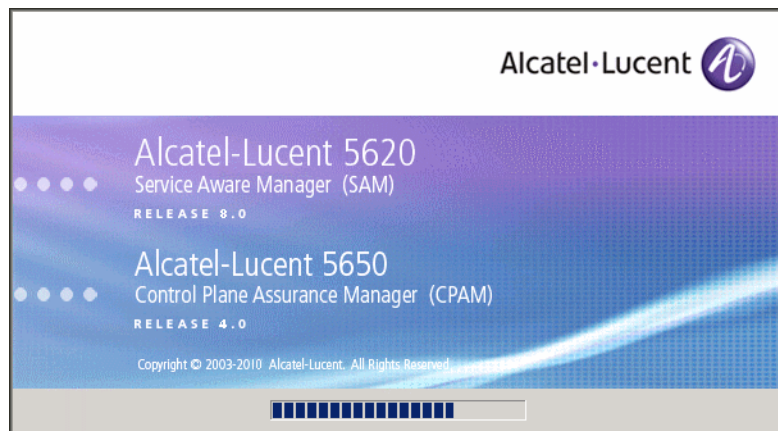
- 2 Log in to the 5650 CPAM server station as a user with root or root-equivalent privileges.
- 3 Open a console window.
- 4 Enter the following at the CLI prompt to open the 5650 CPAM server uninstaller:

```
path/Uninstall/Uninstall_5620_CPAM_Server ↵
```

where *path* is the 5650 CPAM server installation location, typically /opt/5620sam/server

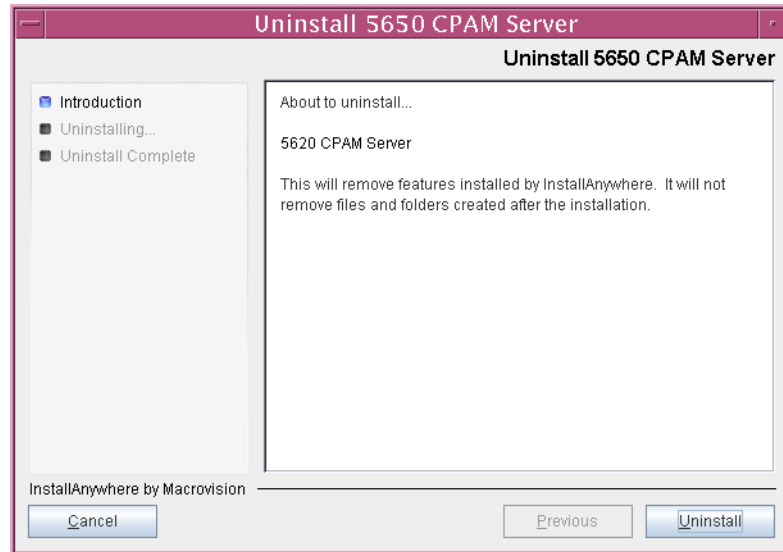
The splash screen shown in Figure 8-87 opens.

Figure 8-87 5620 SAM | 5650 CPAM uninstaller



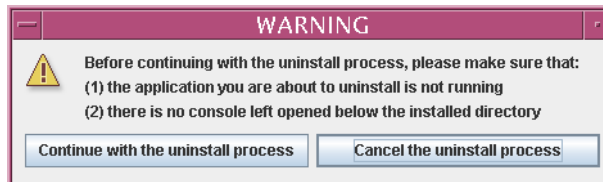
- 5 The 5650 CPAM server uninstaller opens, as shown in Figure 8-88. The left pane indicates uninstallation progress. The right pane indicates the operations that are to take place. Click on the Uninstall button to begin the uninstallation.

Figure 8-88 Uninstall 5650 CPAM Server



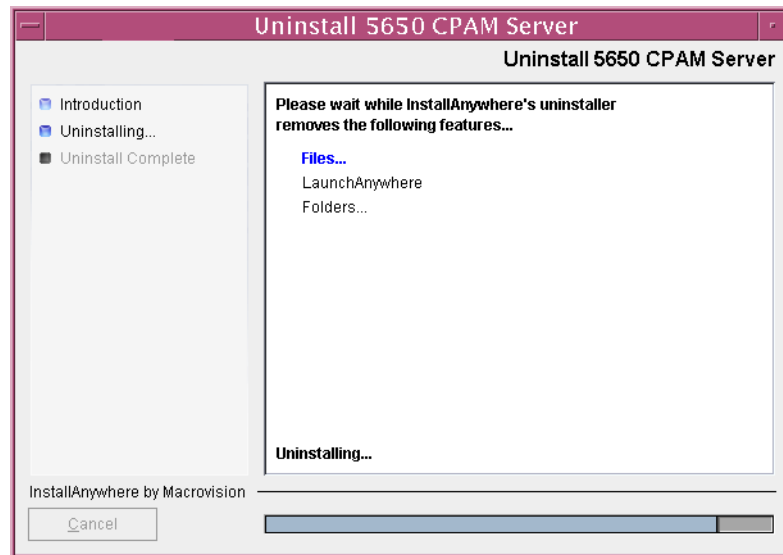
- 6 Read the warning shown in Figure 8-89. Click on the "Continue with the uninstall process" button to begin the uninstallation.

Figure 8-89 Warning



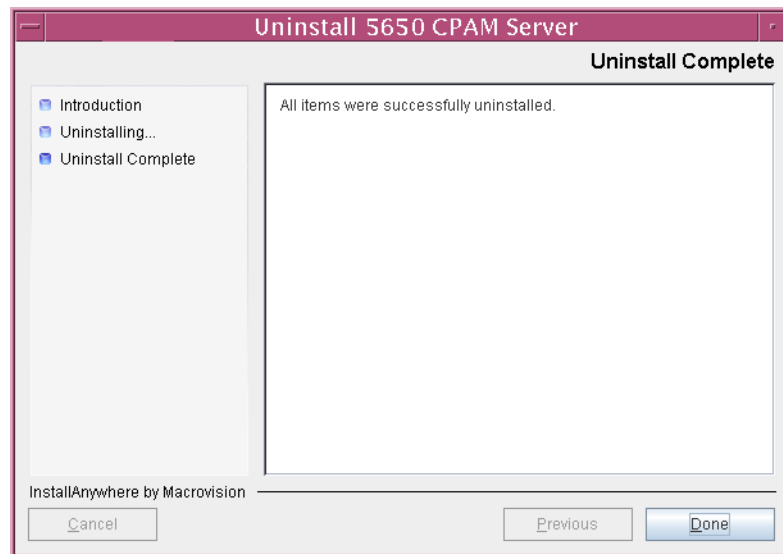
The uninstaller begins to remove 5650 CPAM components, as shown in Figure 8-90.

Figure 8-90 Uninstall 5650 CPAM Server



- 7 When the server uninstallation is complete, as shown in Figure 8-91, click on the Done button to close the server uninstaller.

Figure 8-91 Uninstall Complete



- 8 Close the console window.
- 9 Restart each currently open 5620 SAM GUI client that connects to the 5650 CPAM server.



**Note** — The 5650 CPAM functions remain in a 5620 SAM client GUI until the client is restarted.

---

# *Appendices*

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- A. 5620 SAM installation and upgrade parameters for Windows    *A-1*
- B. 5620 SAM installation parameters for Solaris    *B-1*
- C. 5620 SAM upgrade parameters for Solaris    *C-1*
- D. 5620 SAM conversion to redundancy parameters    *D-1*
- E. 5650 CPAM installation and upgrade parameters    *E-1*



## ***A. 5620 SAM installation and upgrade parameters for Windows***

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A.1 5620 SAM installation parameters for Windows A-2

A.2 5620 SAM upgrade parameters for Windows A-8

## A.1 5620 SAM installation parameters for Windows

The following tables list and describe the parameters that are configurable during a 5620 SAM system installation on Windows. The parameters are grouped by installer panel in the order that the panels are displayed.

Table A-1 Database installation parameters for Windows

| Panel and parameters                                          | Description                                                                                                                                                                                                                                                                                                                                         |
|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Software License Agreement</b>                             |                                                                                                                                                                                                                                                                                                                                                     |
| I accept the terms of the License Agreement                   | You accept the license terms and conditions. You must select this parameter before you can proceed to the next panel.                                                                                                                                                                                                                               |
| I do NOT accept the terms of the License Agreement (default)  | You do not accept the license terms and conditions. You cannot proceed to the next panel when this parameter is selected.                                                                                                                                                                                                                           |
| <b>Choose Installation Type</b>                               |                                                                                                                                                                                                                                                                                                                                                     |
| Install & Configure a Standalone Database (default)           | Standalone database installation                                                                                                                                                                                                                                                                                                                    |
| Restore a Database                                            | Database restore using a database backup file set                                                                                                                                                                                                                                                                                                   |
| Upgrade a Database                                            | Standalone database upgrade                                                                                                                                                                                                                                                                                                                         |
| <b>Install Oracle Software</b>                                |                                                                                                                                                                                                                                                                                                                                                     |
| Install Oracle Software (default)                             | Installs the Oracle software                                                                                                                                                                                                                                                                                                                        |
| Do not install Oracle Software                                | Does not install the Oracle software                                                                                                                                                                                                                                                                                                                |
| <b>Specify the Base Directory for 5620 SAM Database Files</b> |                                                                                                                                                                                                                                                                                                                                                     |
| Unlabeled field                                               | The directory in which the database files are to be installed<br>Default: C:\5620sam\samdb\install                                                                                                                                                                                                                                                  |
| <b>Specify the Base Directory for Oracle Software</b>         |                                                                                                                                                                                                                                                                                                                                                     |
| Unlabeled field                                               | The directory in which the Oracle files are to be installed<br>Default: C:\5620sam\oracle10r2                                                                                                                                                                                                                                                       |
| <b>General Database Configuration Info</b>                    |                                                                                                                                                                                                                                                                                                                                                     |
| Database Server IP Address                                    | The IP address of the network interface on this station that the database is to use for communication with the main server; if NAT is used, this is the private IP address of the database<br>Default: IP address of primary network interface                                                                                                      |
| Database Name                                                 | The name of the database<br>The name must: <ul style="list-style-type: none"><li>• contain 8 or fewer characters</li><li>• contain only ASCII characters</li><li>• have a letter as the first character</li><li>• not be an Oracle restricted database name; see the appropriate Oracle documentation for more information</li></ul> Default: samdb |

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| Panel and parameters                        | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Instance Name                               | The name that the Oracle software associates with the database processes<br>The name must: <ul style="list-style-type: none"><li>contain 8 or fewer characters</li><li>contain only ASCII characters</li><li>have a letter as the first character</li></ul> Default: samdb                                                                                                                                                                                                                                                                                                                                    |
| User Name                                   | The database username<br>Default: samuser                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| User Password                               | The database password, which can be set only during installation<br>Alcatel-Lucent recommends that you accept the default password, but if you create a new password, it must: <ul style="list-style-type: none"><li>contain 32 or fewer characters</li><li>contain only ASCII characters</li><li>contain three of the four following character types<ul style="list-style-type: none"><li>upper case</li><li>lower case</li><li>numeric</li><li>special (for example, %)</li></ul></li></ul> Ensure that you record the password for future use.<br>Default: available from Alcatel-Lucent technical support |
| Confirm User Password                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| General Database Configuration Info (cont.) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Database Listener Port                      | The TCP port on the database station that the Oracle database listener uses to communicate with the main server<br>Default: 1523                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Database Proxy Port                         | The TCP port on this station that the main server is to use for non-JDBC operations<br>Default: 9002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Oracle SYS Password                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| SYS Password                                | The password that Oracle requires to start the database<br>Alcatel-Lucent recommends that you accept the default password.<br>Default: available from Alcatel-Lucent technical support                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Confirm SYS Password                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Main Server IP Validation                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Enable 5620 SAM Server IP Validation        | If selected, allows only the main server specified by the Server IP Address parameter to connect to the database<br>Default: unselected                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Server IP Address                           | The IP address of the only main server that can connect to the database<br>The parameter is configurable when the Enable 5620 SAM Server IP Validation parameter is selected.<br>Default: —                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Archive Log Destination                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Unlabeled field                             | The directory in which the database is to store the archive logs<br>Database transactions are stored in the archive log directory until a database backup is performed. Alcatel-Lucent recommends that you regularly back up the database to avoid filling the partition that contains the archive log directory.<br>Default: C:\5620sam\samdb\archive\log                                                                                                                                                                                                                                                    |
| Staging Destination                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

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| Panel and parameters                                                 | Description                                                                                                                       |
|----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Unlabeled field                                                      | The directory that the database is to use for the continuous statistics tablespace backup<br>Default: C:\5620sam\dbbackup\staging |
| <b>Choose the Redo Log Directory</b>                                 |                                                                                                                                   |
| Unlabeled field                                                      | The directory in which the database is to store the redo logs<br>Default: C:\5620sam\samdb\redolog                                |
| <b>Accounting Statistics Database Retention Period</b>               |                                                                                                                                   |
| Accounting Statistics Data Retention Period                          | The length of time, in days, that the database is to retain statistics records<br>Default: 1                                      |
| <b>Data Layout Option</b>                                            |                                                                                                                                   |
| Multiple Tablespace mapping of Stats and Alarm tablespaces (default) | Separate tablespaces for the statistics and alarm data, and one tablespace for other data                                         |
| Multiple Tablespace mapping of all tablespaces                       | Separate tablespaces for the statistics and alarm data, and multiple tablespaces for other data                                   |
| <b>Accounting Statistics Data File Directory</b>                     |                                                                                                                                   |
| Unlabeled field                                                      | The directory that is to contain the accounting statistics tablespace files<br>Default: C:\5620sam\samdb\tablespace\statstbs01    |

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Table A-2 Main server installation parameters for Windows

| Panel and parameters                                             | Description                                                                                                                                                                                                                                                                         |
|------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Software License Agreement</b>                                |                                                                                                                                                                                                                                                                                     |
| I accept the terms of the License Agreement                      | You accept the license terms and conditions. You must select this parameter before you can proceed to the next panel.                                                                                                                                                               |
| I do NOT accept the terms of the License Agreement (default)     | You do not accept the license terms and conditions. You cannot proceed to the next panel when this parameter is selected.                                                                                                                                                           |
| <b>Choose Installation Type</b>                                  |                                                                                                                                                                                                                                                                                     |
| Main Server Installation (default)                               | Main server installation<br>You must choose this option.                                                                                                                                                                                                                            |
| Main Server Configuration                                        | Main server configuration                                                                                                                                                                                                                                                           |
| <b>Specify the Base Directory for 5620 SAM Main Server Files</b> |                                                                                                                                                                                                                                                                                     |
| Unlabeled field                                                  | The directory in which the main server files are to be installed<br>Default: C:\5620sam\server                                                                                                                                                                                      |
| <b>License Information for 5620 SAM Main Server</b>              |                                                                                                                                                                                                                                                                                     |
| Customer Name                                                    | The customer name that is associated with the 5620 SAM license key<br>The customer name is a case-sensitive value that is used to generate the license key. You must enter the value exactly as received from Alcatel-Lucent or you cannot proceed to the next panel.<br>Default: — |

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| Panel and parameters                   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| License Key                            | The 5620 SAM license key value, which is in the following format:<br>XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX<br>You must include the dashes in the license key value that you enter.<br>Default: —                                                                                                                                                                                                                                        |
| <b>Additional Server Configuration</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Client Delegate Server Supported       | If selected, specifies that the 5620 SAM deployment includes one or more client delegate servers<br>Default: unselected                                                                                                                                                                                                                                                                                                                           |
| <b>Database Configuration</b>          |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Database Server IP Address             | The IP address that the main server must use to reach the database station<br>The value must match the Database Server IP Address value specified on the General Database Configuration Info panel during the database installation.<br>Default: —                                                                                                                                                                                                |
| Database Server Port                   | The TCP port on the database station that the main server must use to reach the database<br>The value must match the Database Listener Port value specified on the General Database Configuration Info (cont.) panel during the database installation.<br>Default: 1523                                                                                                                                                                           |
| Database Instance Name                 | The name that the Oracle software associates with the database processes<br>The value must match the Instance Name value specified on the General Database Configuration Info panel during the database installation.<br>Default: samdb                                                                                                                                                                                                           |
| Database User Name                     | The database username<br>The value must match the User Name value specified on the General Database Configuration Info panel during the database installation.<br>Default: samuser                                                                                                                                                                                                                                                                |
| Database User Password                 | The database password<br>The value must match the User Password value specified on the General Database Configuration Info panel during the database installation.<br>Default: available from Alcatel-Lucent technical support                                                                                                                                                                                                                    |
| Database Proxy Port                    | The TCP port on the database station that the main server uses for non-JDBC operations<br>The value must match the Database Proxy Port value specified on the General Database Configuration Info (cont.) panel during the database installation.<br>Default: 9002                                                                                                                                                                                |
| <b>Online Database Backup</b>          |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Online Backup Interval (Hours)         | How often, in hours, the 5620 SAM is to back up the database<br>Default: 24                                                                                                                                                                                                                                                                                                                                                                       |
| Online Backup Destination              | The backup directory on the database station<br>Alcatel-Lucent recommends that you do the following: <ul style="list-style-type: none"> <li>Specify an Online Backup Destination that can hold at least five times the expected database size.</li> <li>Ensure that the available space in the Online Backup Destination is sufficient to accommodate the database growth associated with network growth.</li> </ul> Default: C:\5620sam\dbbackup |

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| Panel and parameters                                 | Description                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Number Of Backup Sets                                | The number of database backup sets that the 5620 SAM is to retain<br>The 5620 SAM creates a separate directory for each backup set. For example, if the Online Backup Destination is C:\5620sam\dbbackup and the Number Of Backup Sets is 3, the C:\5620sam\dbbackup directory contains the backupset_1, backupset_2, and backupset_3 subdirectories.<br>Default: 3             |
| <b>Main Server Configuration for Clients</b>         |                                                                                                                                                                                                                                                                                                                                                                                 |
| Server Domain Name                                   | The unique identifier of the 5620 SAM system<br>Default: 5620sam                                                                                                                                                                                                                                                                                                                |
| NAT (network address translation) Used               | If selected, specifies that NAT is used between the main server and the GUI and OSS clients<br>Default: unselected                                                                                                                                                                                                                                                              |
| Private IP (accessible only by this server)          | The IP address that the NAT router uses to reach the main server<br>The parameter is configurable when the NAT (network address translation) Used parameter is selected.<br>Default: —                                                                                                                                                                                          |
| Public IP (accessible to clients)                    | The IP address that the GUI and OSS clients must use to reach the main server<br>Default: —                                                                                                                                                                                                                                                                                     |
| EJB JNDI Server port                                 | The TCP port on the main server station that the GUI clients are to use for EJB JMS messaging<br>Alcatel-Lucent recommends that you accept the default value unless one of the following is true: <ul style="list-style-type: none"> <li>• Another application uses the port.</li> <li>• There is a firewall between the clients and the main server.</li> </ul> Default: 1099  |
| EJB JMS Server port                                  | The TCP port on the main server station that the GUI clients are to use for EJB JNDI messaging<br>Alcatel-Lucent recommends that you accept the default value unless one of the following is true: <ul style="list-style-type: none"> <li>• Another application uses the port.</li> <li>• There is a firewall between the clients and the main server.</li> </ul> Default: 8093 |
| Enable 5670 RAM                                      | If selected, specifies that a 5670 RAM is to be integrated with the 5620 SAM system<br>Default: unselected                                                                                                                                                                                                                                                                      |
| <b>Main Server Configuration for Clients (cont.)</b> |                                                                                                                                                                                                                                                                                                                                                                                 |
| RMI Port                                             | The TCP port on the main server station that the GUI clients are to use for JBOSS name service communication, such as requesting objects or functions from the main server<br>Default: 1098                                                                                                                                                                                     |
| RMI Object Port                                      | The TCP port on the main server station that the GUI clients are to use for JBOSS messaging, for example, during GUI user operations<br>Default: 4444                                                                                                                                                                                                                           |
| <b>License Information for 5650 CPAM Server</b>      |                                                                                                                                                                                                                                                                                                                                                                                 |
| Include 5650 CPAM Server License Information         | If selected, specifies that a 5650 CPAM is to be integrated with the 5620 SAM system<br>Default: —                                                                                                                                                                                                                                                                              |

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| Panel and parameters                                           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Unlabeled field                                                | <p>The 5650 CPAM license key value, which is in the following format:<br/>XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX</p> <p>You must include the dashes in the license key value that you enter.</p> <p>The parameter is configurable when the Include 5650 CPAM Server License Information parameter is selected.</p> <p>Default: —</p>                                                                                                       |
| <b>User Documentation</b>                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Install User Documentation at Central Location Below (default) | If selected, specifies that the user documentation is to be installed in the central location that you enter in the unlabeled field on the panel                                                                                                                                                                                                                                                                                                    |
| Install User Documentation to Client File System               | If selected, specifies that the user documentation is to be installed on the local file system of each GUI client                                                                                                                                                                                                                                                                                                                                   |
| Unlabeled field                                                | <p>If Install User Documentation at Central Location Below is selected:<br/>An absolute file path or URL that is accessible to the GUI clients; if the location is a URL and NAT is used, the URL must contain a public IP address</p> <p>If Install User Documentation to Client File System is selected:<br/>A path on the client file system that is relative to the nms directory under the client installation directory</p> <p>Default: —</p> |
| <b>SNMP Configuration</b>                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| NAT (network address translation) Used                         | If selected, specifies that NAT is used between the main server and the managed NEs                                                                                                                                                                                                                                                                                                                                                                 |
| SNMP Trap Receiving IPv4 Address                               | <p>The IPv4 address that the devices in the managed network must use to reach the main server</p> <p>Default: —</p>                                                                                                                                                                                                                                                                                                                                 |
| SNMP Trap Receiving Port                                       | <p>The TCP port on this station that the devices in the managed network must use to reach the main server</p> <p>Default: 162</p>                                                                                                                                                                                                                                                                                                                   |
| Trap Log Id                                                    | <p>The SNMP trap log ID that is associated with the main server</p> <p>Default: 98</p>                                                                                                                                                                                                                                                                                                                                                              |
| <b>Navigation from External Systems</b>                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Enable Navigation from External Systems                        | <p>If selected, enables the forwarding of 5620 SAM client GUI activity to a 5620 NM</p> <p>Default: unselected</p>                                                                                                                                                                                                                                                                                                                                  |
| TCP port for accepting GUI navigation requests                 | <p>The TCP port on this station that is to accept 5620 NM navigation requests</p> <p>The parameter is configurable when the Enable Navigation from External Systems parameter is selected.</p> <p>Default: —</p>                                                                                                                                                                                                                                    |
| <b>XML Output Directory</b>                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Unlabeled field                                                | <p>The directory that is to contain the output of OSSI file export operations</p> <p>Default: C:\5620sam\server\xml_output</p>                                                                                                                                                                                                                                                                                                                      |
| <b>Installation Complete</b>                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Start the 5620 SAM Main Server                                 | <p>If selected, specifies that the main server is to start automatically after the installation</p> <p>Default: unselected</p>                                                                                                                                                                                                                                                                                                                      |

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Table A-3 Single-user client installation parameters for Windows

| Panel and parameters                                         | Description                                                                                                                                                           |
|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Software License Agreement</b>                            |                                                                                                                                                                       |
| I accept the terms of the License Agreement                  | You accept the license terms and conditions. You must select this parameter before you can proceed to the next panel.                                                 |
| I do NOT accept the terms of the License Agreement (default) | You do not accept the license terms and conditions. You cannot proceed to the next panel when this parameter is selected.                                             |
| <b>Choose Installation Type</b>                              |                                                                                                                                                                       |
| Client Installation and Configuration (default)              | Client installation                                                                                                                                                   |
| Client Configuration                                         | Client configuration                                                                                                                                                  |
| <b>Specify the Base Directory for 5620 SAM Client Files</b>  |                                                                                                                                                                       |
| Unlabeled field                                              | The directory in which the client files are to be installed<br>Default: C:\5620sam\client                                                                             |
| <b>Main Server Configuration</b>                             |                                                                                                                                                                       |
| Server IP Address                                            | The IP address of the standalone main server, or the primary main server in a redundant deployment, to which the client is to connect<br>Default: —                   |
| Redundancy Support                                           | If selected, specifies that the 5620 SAM system is a redundant deployment<br>Default: unselected                                                                      |
| Server Two IP Address                                        | The IP address of the standby main server in a redundant deployment<br>The parameter is configurable when the Redundancy Support parameter is selected.<br>Default: — |
| <b>Installation Complete</b>                                 |                                                                                                                                                                       |
| Start the 5620 SAM Client                                    | If selected, specifies that the client is to start automatically after the installation<br>Default: selected                                                          |

## A.2 5620 SAM upgrade parameters for Windows

The following tables list and describe the parameters that are configurable during a 5620 SAM system upgrade on Windows. The parameters are grouped by installer panel in the order that the panels are displayed.



**Note** — Unless stated, the default value for a parameter is the value specified during the previous upgrade or installation.

Table A-4 Database upgrade parameters for Windows

| Panel and parameters              | Description |
|-----------------------------------|-------------|
| <b>Software License Agreement</b> |             |

(1 of 3)

| Panel and parameters                                                    | Description                                                                                                                                                                                                                                    |
|-------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I accept the terms of the License Agreement                             | You accept the license terms and conditions. You must select this parameter before you can proceed to the next panel.                                                                                                                          |
| I do NOT accept the terms of the License Agreement (default)            | You do not accept the license terms and conditions. You cannot proceed to the next panel when this parameter is selected.                                                                                                                      |
| <b>Choose Installation Type</b>                                         |                                                                                                                                                                                                                                                |
| Install & Configure a Standalone Database (default)                     | Standalone database installation                                                                                                                                                                                                               |
| Restore a Database                                                      | Database restore using a database backup file set                                                                                                                                                                                              |
| Upgrade a Database                                                      | Standalone database upgrade<br>You must choose this option.                                                                                                                                                                                    |
| <b>Specify the Installation Root Directory of the 5620 SAM Database</b> |                                                                                                                                                                                                                                                |
| Unlabeled field                                                         | The directory in which the database files are installed                                                                                                                                                                                        |
| <b>Specify the Base Directory for Oracle Software</b>                   |                                                                                                                                                                                                                                                |
| Unlabeled field                                                         | The directory in which the Oracle files are installed                                                                                                                                                                                          |
| <b>Locate Old Oracle Software Directory</b>                             |                                                                                                                                                                                                                                                |
| Keep Old Oracle Directory Contents after Upgrade                        | The directory in which the existing Oracle files are installed<br>The panel and parameter are displayed only during an upgrade from 5620 SAM Release 6.0 or 6.1.                                                                               |
| <b>Get Upgrade Database Info</b>                                        |                                                                                                                                                                                                                                                |
| Database Server IP Address                                              | The IP address of the network interface on this station that the database is to use for communication with the main server; if NAT is used, this is the private IP address of the database<br>Default: IP address of primary network interface |
| Database Name                                                           | The name of the database                                                                                                                                                                                                                       |
| Instance Name                                                           | The name that the Oracle software associates with the database processes                                                                                                                                                                       |
| User Name                                                               | The database username                                                                                                                                                                                                                          |
| User Password                                                           | The database password                                                                                                                                                                                                                          |
| <b>Get Upgrade Database Info (cont.)</b>                                |                                                                                                                                                                                                                                                |
| Database Listener Port                                                  | The TCP port on the database station that the Oracle database listener uses to communicate with the main server                                                                                                                                |
| Database Proxy Port                                                     | The TCP port on the database station that the main server uses for non-JDBC operations                                                                                                                                                         |
| <b>Main Server IP Validation</b>                                        |                                                                                                                                                                                                                                                |
| Enable 5620 SAM Server IP Validation                                    | If selected, allows only the main server specified by the Server IP Address parameter to connect to the database                                                                                                                               |
| Server IP Address                                                       | The IP address of the only main server that can connect to the database<br>The parameter is configurable when the Enable 5620 SAM Server IP Validation parameter is selected.                                                                  |
| <b>Staging Destination</b>                                              |                                                                                                                                                                                                                                                |
| Unlabeled field                                                         | The directory that the database uses for the continuous statistics tablespace backup                                                                                                                                                           |
| <b>Accounting Statistics Database Retention Period</b>                  |                                                                                                                                                                                                                                                |
| Accounting Statistics Data Retention Period                             | The length of time, in days, that the database is to retain statistics records                                                                                                                                                                 |

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| Panel and parameters            | Description                                                                                                                                |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purge Statistics</b>         |                                                                                                                                            |
| Purge All Accounting Statistics | If selected, specifies that the 5620 SAM installer removes the accounting statistics data from the database to reduce the upgrade duration |
| Purge All MIB Statistics        | If selected, specifies that the 5620 SAM installer removes the MIB-based statistics data from the database to reduce the upgrade duration  |

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**Table A-5 Main server upgrade parameters for Windows**

| Panel and parameters | Description                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| —                    | <p>The panels and parameters in a main server upgrade on Windows are identical to the panels and parameters in a main server installation; however, the default parameter values in an upgrade are the values specified during the previous main server installation or upgrade.</p> <p>See Table A-2 for information about the parameters in a 5620 SAM main server upgrade for Windows.</p> |



## ***B. 5620 SAM installation parameters for Solaris***

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- B.1 Standalone database and main server installation parameters for Solaris *B-2*
- B.2 Redundant database and main server installation parameters *B-9*
- B.3 Auxiliary server installation parameters *B-28*
- B.4 Single-user client and client delegate server installation parameters for Solaris *B-31*

## B.1 Standalone database and main server installation parameters for Solaris

Tables B-1 and B-2 list and describe the configurable parameters for a standalone 5620 SAM database and main server installation on Solaris. The tables are presented in an order that follows the standalone installation workflow in chapter 3. The parameters in each table are grouped by installer panel in the order that the panels are displayed.

Table B-1 Standalone database installation parameters

| Panel and parameters                                          | Description                                                                                                                                                            |
|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Software License Agreement</b>                             |                                                                                                                                                                        |
| I accept the terms of the License Agreement                   | You accept the license terms and conditions. You must select this parameter before you can proceed to the next panel.                                                  |
| I do NOT accept the terms of the License Agreement (default)  | You do not accept the license terms and conditions. You cannot proceed to the next panel when this parameter is selected.                                              |
| <b>Choose Installation Type</b>                               |                                                                                                                                                                        |
| Install & Configure a Standalone Database (default)           | Installs a standalone database<br>You must choose this option.                                                                                                         |
| Restore a Database                                            | Restores a database using a backup file set                                                                                                                            |
| Upgrade a Database                                            | Upgrades a database                                                                                                                                                    |
| Install & Configure Primary/Standby Database                  | Installs a primary or standby database for a redundant 5620 SAM deployment                                                                                             |
| <b>Install Oracle Software</b>                                |                                                                                                                                                                        |
| Install Oracle Software (default)                             | Installs the Oracle software                                                                                                                                           |
| Do not install Oracle Software                                | Does not install the Oracle software                                                                                                                                   |
| <b>Specify the Base Directory for 5620 SAM Database Files</b> |                                                                                                                                                                        |
| Unlabeled field                                               | The directory in which the database files are to be installed<br>Default: /opt/5620sam/samdb/install                                                                   |
| <b>Specify the Base Directory for Oracle Software</b>         |                                                                                                                                                                        |
| Unlabeled field                                               | The directory in which the Oracle files are to be installed<br>Default: /opt/5620sam/oracle10r2                                                                        |
| <b>General Database Configuration Info</b>                    |                                                                                                                                                                        |
| NAT (network address translation) Used                        | If selected, specifies that NAT is used between this database and the main server                                                                                      |
| Public IP (accessible to servers)                             | The IP address that the main server must use to reach this database<br>Default: IP address of primary network interface                                                |
| Private IP                                                    | The IP address that the NAT router uses to reach this database<br>The parameter is configurable when the NAT (network address translation) Used parameter is selected. |

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| Panel and parameters                        | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Database Name                               | The name of the database<br>The name must: <ul style="list-style-type: none"><li>• contain 8 or fewer characters</li><li>• consist of ASCII characters only</li><li>• have a letter as the first character</li><li>• not be an Oracle restricted database name; see the appropriate Oracle documentation for more information</li></ul> Default: samdb                                                                                                                                                                                                                                                                          |
| Instance Name                               | The name that the Oracle software associates with the database processes<br>The name must: <ul style="list-style-type: none"><li>• contain 8 or fewer characters</li><li>• consist of ASCII characters only</li><li>• have a letter as the first character</li></ul> Default: samdb                                                                                                                                                                                                                                                                                                                                             |
| User Name                                   | The database username<br>Default: samuser                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| User Password                               | The database password, which can be set only during installation<br>Alcatel-Lucent recommends that you accept the default password, but if you create a new password, it must: <ul style="list-style-type: none"><li>• contain 32 or fewer characters</li><li>• consist of ASCII characters only</li><li>• use at least three of the following character types:<ul style="list-style-type: none"><li>• upper case</li><li>• lower case</li><li>• numeric</li><li>• special (for example, %)</li></ul></li></ul> Ensure that you record the password for future use.<br>Default: available from Alcatel-Lucent technical support |
| Confirm User Password                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| General Database Configuration Info (cont.) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Database Listener Port                      | The TCP port on the database station that the Oracle database listener is to use to communicate with the main server<br>Default: 1523                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Database Proxy Port                         | The TCP port on this station that the main server is to use for non-JDBC operations<br>Default: 9002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Oracle SYS Password                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| SYS Password                                | The password that Oracle requires to start the database<br>Alcatel-Lucent recommends that you accept the default password.<br>Default: available from Alcatel-Lucent technical support                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Confirm SYS Password                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Determine Memory Requirements               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Database co-exists with a 5620 SAM server   | If selected, specifies that the database and main server are to be collocated on this station<br>Default: unselected                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Main Server IP Validation                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Enable SAM Server IP Validation             | If selected, allows only the main server specified by the SAM Server IP Address parameter to connect to the database<br>Default: unselected                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

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| Panel and parameters                                                 | Description                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SAM Server IP Address                                                | The IP address of the only main server that can connect to the database<br>The parameter is configurable when the Enable SAM Server IP Validation parameter is selected.<br>Default: —                                                                                                                                                                      |
| <b>Auxiliary Servers</b>                                             |                                                                                                                                                                                                                                                                                                                                                             |
| IP Address                                                           | The IP address or hostname of the auxiliary server<br>Default: —                                                                                                                                                                                                                                                                                            |
| <b>Archive Log Destination</b>                                       |                                                                                                                                                                                                                                                                                                                                                             |
| Unlabeled field                                                      | The directory in which the database is to store the archive logs<br>Database transactions are stored in the archive log directory until a database backup is performed. Alcatel-Lucent recommends that you regularly back up the database to avoid filling the partition that contains the archive log directory.<br>Default: /opt/5620sam/samdb/archivelog |
| <b>Staging Destination</b>                                           |                                                                                                                                                                                                                                                                                                                                                             |
| Unlabeled field                                                      | The directory that the database is to use for the continuous statistics tablespace backup<br>Default: /opt/5620sam/dbbackup/staging                                                                                                                                                                                                                         |
| <b>Choose the Redo Log Directory</b>                                 |                                                                                                                                                                                                                                                                                                                                                             |
| Unlabeled field                                                      | The directory in which the database is to store the redo logs<br>Default: /opt/5620sam/samdb/redolog                                                                                                                                                                                                                                                        |
| <b>Accounting Statistics Database Retention Period</b>               |                                                                                                                                                                                                                                                                                                                                                             |
| Accounting Statistics Data Retention Period                          | The length of time, in days, that the database is to retain statistics records<br>Default: 1                                                                                                                                                                                                                                                                |
| <b>Data Layout Option</b>                                            |                                                                                                                                                                                                                                                                                                                                                             |
| Multiple Tablespace mapping of Stats and Alarm tablespaces (default) | Separate tablespaces for the statistics and alarm data, and one tablespace for other data                                                                                                                                                                                                                                                                   |
| Multiple Tablespace mapping of all tablespaces                       | Separate tablespaces for the statistics and alarm data, and multiple tablespaces for other data                                                                                                                                                                                                                                                             |
| <b>Accounting Statistics Data File Directory</b>                     |                                                                                                                                                                                                                                                                                                                                                             |
| Unlabeled field                                                      | The directory that is to contain the accounting statistics tablespace files<br>Default: /opt/5620sam/samdb/tablespace/statstbs01                                                                                                                                                                                                                            |

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Table B-2 Standalone main server installation parameters

| Panel and parameters                                         | Description                                                                                                               |
|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <b>Software License Agreement</b>                            |                                                                                                                           |
| I accept the terms of the License Agreement                  | You accept the license terms and conditions. You must select this parameter before you can proceed to the next panel.     |
| I do NOT accept the terms of the License Agreement (default) | You do not accept the license terms and conditions. You cannot proceed to the next panel when this parameter is selected. |
| <b>Choose Installation Type</b>                              |                                                                                                                           |

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| Panel and parameters                                             | Description                                                                                                                                                                                                                                                             |
|------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Main Server Installation (default)                               | Installs the main server software<br>You must choose this option.                                                                                                                                                                                                       |
| Main Server Configuration                                        | Configures the main server software                                                                                                                                                                                                                                     |
| Auxiliary Server Installation                                    | Installs the auxiliary server software                                                                                                                                                                                                                                  |
| Auxiliary Server Configuration                                   | Configures the auxiliary server software                                                                                                                                                                                                                                |
| CPAM Server Installation                                         | Installs the 5650 CPAM server software                                                                                                                                                                                                                                  |
| CPAM Server Configuration                                        | Configures the 5650 CPAM server software                                                                                                                                                                                                                                |
| <b>Specify the Base Directory for 5620 SAM Main Server Files</b> |                                                                                                                                                                                                                                                                         |
| Unlabeled field                                                  | The directory in which the main server files are to be installed<br>Default: /opt/5620sam/server                                                                                                                                                                        |
| <b>License Information for 5620 SAM Main Server</b>              |                                                                                                                                                                                                                                                                         |
| License Key                                                      | The 5620 SAM license key value, which is in the following format:<br>XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX<br>You must include the dashes in the license key value that you enter.<br>Default: —                                                              |
| <b>Additional Server Configuration</b>                           |                                                                                                                                                                                                                                                                         |
| Redundancy Supported                                             | If selected, specifies that the 5620 SAM system is deployed in a redundant configuration<br>You must leave this parameter unselected.<br>Default: unselected                                                                                                            |
| Auxiliary Server Supported                                       | If selected, specifies that the 5620 SAM deployment includes one or more auxiliary servers<br>Default: unselected                                                                                                                                                       |
| Client Delegate Server Supported                                 | If selected, specifies that the 5620 SAM deployment includes one or more client delegate servers<br>Default: unselected                                                                                                                                                 |
| <b>Database Configuration</b>                                    |                                                                                                                                                                                                                                                                         |
| Database Server IP Address                                       | The IP address that the main server must use to reach the database station<br>Default: —                                                                                                                                                                                |
| Database Server Port                                             | The TCP port on the database station that the main server must use to reach the database<br>The value must match the Database Listener Port value specified on the General Database Configuration Info (cont.) panel during the database installation.<br>Default: 1523 |
| Database Instance Name                                           | The name that the Oracle software associates with the database processes<br>The value must match the Instance Name value specified on the General Database Configuration Info panel during the database installation.<br>Default: samdb                                 |
| Database User Name                                               | The database username<br>The value must match the User Name value specified on the General Database Configuration Info panel during the database installation.<br>Default: samuser                                                                                      |

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| Panel and parameters                                   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Database User Password                                 | The database password<br>The value must match the User Password value specified on the General Database Configuration Info panel during the database installation.<br>Default: available from Alcatel-Lucent technical support                                                                                                                                                                                                                      |
| Database Proxy Port                                    | The TCP port on the database station that the main server is to use for non-JDBC operations<br>The value must match the Database Proxy Port value specified on the General Database Configuration Info (cont.) panel during the database installation.<br>Default: 9002                                                                                                                                                                             |
| <b>Online Database Backup</b>                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Online Backup Interval (Hours)                         | How often, in hours, the 5620 SAM is to back up the database<br>Default: 24                                                                                                                                                                                                                                                                                                                                                                         |
| Online Backup Destination                              | The backup directory on the database station<br>Alcatel-Lucent recommends that you do the following: <ul style="list-style-type: none"> <li>Specify an Online Backup Destination that can hold at least five times the expected database size.</li> <li>Ensure that the available space in the Online Backup Destination is sufficient to accommodate the database growth associated with network growth.</li> </ul> Default: /opt/5620sam/dbbackup |
| Number Of Backup Sets                                  | The number of database backup sets that the 5620 SAM is to retain<br>The 5620 SAM creates a separate directory for each backup set. For example, if the Online Backup Destination is /opt/5620sam/dbbackup and the Number Of Backup Sets is 3, the /opt/5620sam/dbbackup directory contains the backupset_1, backupset_2, and backupset_3 subdirectories.<br>Default: 3                                                                             |
| <b>Main Server Configuration for Auxiliary Servers</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| NAT (network address translation) Used                 | If selected, specifies that NAT is used between the main server and the auxiliary servers<br>Default: unselected                                                                                                                                                                                                                                                                                                                                    |
| Private IP (accessible only by this server)            | The IP address that the NAT router uses to reach the main server<br>The parameter is configurable when the NAT (network address translation) Used parameter is selected.<br>Default: IP address of primary network interface                                                                                                                                                                                                                        |
| Public IP (accessible to auxiliary)                    | The IP address that the auxiliary servers must use to reach the main server<br>Default: —                                                                                                                                                                                                                                                                                                                                                           |
| Server port                                            | The TCP port on this station that the auxiliary servers must use to reach the main server<br>Default: 12800                                                                                                                                                                                                                                                                                                                                         |
| Enable Stats Collection on Auxiliary Servers           | If selected, specifies that at least one auxiliary server is to be used for statistics collection<br>Default: unselected                                                                                                                                                                                                                                                                                                                            |
| Enable Call Trace Collection on Auxiliary Servers      | If selected, specifies that at least two auxiliary servers are to be used for call-trace data collection<br>Default: unselected                                                                                                                                                                                                                                                                                                                     |
| <b>Auxiliary Server Configuration</b>                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| IP Address                                             | The IP address that the main server must use to reach the auxiliary server<br>Default: —                                                                                                                                                                                                                                                                                                                                                            |

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| Panel and parameters                         | Description                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Port                                         | The TCP port on the auxiliary server that the main server must use to reach the auxiliary server<br>Default: 12800                                                                                                                                                                                                                                                              |
| Type                                         | Preferred—specifies that the main server uses this auxiliary server under normal conditions<br>Reserved—specifies that the main server uses this auxiliary server when the Preferred auxiliary server is unavailable<br>Default: Preferred                                                                                                                                      |
| <b>Main Server Configuration For Clients</b> |                                                                                                                                                                                                                                                                                                                                                                                 |
| Server Domain Name                           | The unique identifier of the 5620 SAM server cluster<br>Default: 5620sam                                                                                                                                                                                                                                                                                                        |
| Use Hostname for Communication               | If selected, specifies that the GUI clients, OSS clients, and auxiliary servers use a hostname, rather than an IP address, to reach the main server<br>Default: unselected                                                                                                                                                                                                      |
| NAT (network address translation) Used       | If selected, specifies that NAT is used between the main server and the GUI clients, OSS clients, and auxiliary servers<br>Default: unselected                                                                                                                                                                                                                                  |
| Private IP (accessible only by this server)  | The IP address that the NAT router uses to reach the main server<br>The parameter is displayed and configurable when the NAT (network address translation) Used parameter is selected.<br>Default: IP address of primary network interface                                                                                                                                      |
| Public Hostname (accessible to clients)      | The hostname that the GUI clients, OSS clients, and auxiliary servers must use to reach the main server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter is selected.<br>Default: —                                                                                                                                             |
| Public IP (accessible to clients)            | The IP address that the GUI clients, OSS clients, and auxiliary servers must use to reach the main server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter is unselected.<br>Default: —                                                                                                                                         |
| EJB JNDI Server port                         | The TCP port on the main server station that the GUI clients are to use for EJB JNDI messaging<br>Alcatel-Lucent recommends that you accept the default value unless one of the following is true: <ul style="list-style-type: none"> <li>• Another application uses the port.</li> <li>• There is a firewall between the clients and the main server.</li> </ul> Default: 1099 |
| EJB JMS Server port                          | The TCP port on the main server station that the GUI clients are to use for EJB JMS messaging<br>Alcatel-Lucent recommends that you accept the default value unless one of the following is true: <ul style="list-style-type: none"> <li>• Another application uses the port.</li> <li>• There is a firewall between the clients and the main server.</li> </ul> Default: 8093  |
| Enable 5670 RAM                              | If selected, specifies that a 5670 RAM is to be integrated with the 5620 SAM system<br>Default: unselected                                                                                                                                                                                                                                                                      |

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| Panel and parameters                                           | Description                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enable 3GPP OSS Interface                                      | If selected, specifies that the 5620 SAM 3GPP OSS interface is to be enabled<br>Default: unselected                                                                                                                                                                                                                                                                                                                                |
| <b>Main Server Configuration for Clients (cont.)</b>           |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| RMI Port                                                       | The TCP port on the main server station that the GUI clients are to use for JBOSS name service communication, such as requesting objects or functions from the main server<br>Default: 1098                                                                                                                                                                                                                                        |
| RMI Object Port                                                | The TCP port on the main server station that the GUI clients are to use for JBOSS messaging, for example, during GUI user operations<br>Default: 4444                                                                                                                                                                                                                                                                              |
| <b>User Documentation</b>                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Install User Documentation at Central Location Below (default) | If selected, specifies that the user documentation is to be installed in the central location that you enter in the unlabeled field on the panel                                                                                                                                                                                                                                                                                   |
| Install User Documentation to Client File System               | If selected, specifies that the user documentation is to be installed on the local file system of each GUI client                                                                                                                                                                                                                                                                                                                  |
| Unlabeled field                                                | If Install User Documentation at Central Location Below is selected:<br>An absolute file path or URL that is accessible to the GUI clients; if the location is a URL and NAT is used, the URL must contain a public IP address<br>If Install User Documentation to Client File System is selected:<br>A path on the client file system that is relative to the nms directory under the client installation directory<br>Default: — |
| <b>License Information for 5650 CPAM Server</b>                |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Include 5650 CPAM Server License Information                   | If selected, specifies that a 5650 CPAM is to be integrated with the 5620 SAM system<br>Default: unselected                                                                                                                                                                                                                                                                                                                        |
| Unlabeled field                                                | The 5650 CPAM license key value, which is in the following format:<br>XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX<br>You must include the dashes in the license key value that you enter.<br>The parameter is configurable when the Include 5650 CPAM Server License Information parameter is selected.<br>Default: —                                                                                                          |
| <b>SNMP Configuration</b>                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| NAT (network address translation) Used                         | If selected, specifies that NAT is used between the main server and the managed NEs                                                                                                                                                                                                                                                                                                                                                |
| SNMP Trap Receiving IPv4 Address                               | The IPv4 address that the devices in the managed network must use to reach the main server<br>This parameter is mandatory.<br>Default: —                                                                                                                                                                                                                                                                                           |
| SNMP Trap Receiving IPv6 Address                               | The IPv6 address that the devices in the managed network use to reach the main server<br>This parameter is optional.<br>Default: —                                                                                                                                                                                                                                                                                                 |
| SNMP Trap Receiving Port                                       | The TCP port on this station that the devices in the managed network must use to reach the main server<br>Default: 162                                                                                                                                                                                                                                                                                                             |
| Trap Log Id                                                    | The SNMP trap log ID that is associated with the main server<br>Default: 98                                                                                                                                                                                                                                                                                                                                                        |

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| Panel and parameters                           | Description                                                                                                                                                                                       |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Navigation from External Systems</b>        |                                                                                                                                                                                                   |
| Enable Navigation from External Systems        | If selected, enables the forwarding of 5620 SAM client GUI activity to a 5620 NM<br>Default: unselected                                                                                           |
| TCP port for accepting GUI navigation requests | The TCP port on this station that is to accept 5620 NM navigation requests<br>The parameter is configurable when the Enable Navigation from External Systems parameter is selected.<br>Default: — |
| <b>XML Output Directory</b>                    |                                                                                                                                                                                                   |
| Unlabeled field                                | The directory that is to contain the output of OSSI file export operations<br>Default: /opt/5620sam/server/xml_output                                                                             |
| <b>Installation Complete</b>                   |                                                                                                                                                                                                   |
| Start the 5620 SAM Main Server                 | If selected, specifies that the main server is to start automatically after the installation<br>Default: unselected                                                                               |

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## B.2 Redundant database and main server installation parameters

Tables B-3 to B-6 list and describe the configurable parameters for a redundant 5620 SAM database and main server installation on Solaris. The tables are presented in an order that follows the redundant installation workflow in chapter 3. The parameters in each table are grouped by installer panel in the order that the panels are displayed.

Table B-3 Primary database installation parameters

| Panel and parameters                                         | Description                                                                                                               |
|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <b>Software License Agreement</b>                            |                                                                                                                           |
| I accept the terms of the License Agreement                  | You accept the license terms and conditions. You must select this parameter before you can proceed to the next panel.     |
| I do NOT accept the terms of the License Agreement (default) | You do not accept the license terms and conditions. You cannot proceed to the next panel when this parameter is selected. |
| <b>Choose Installation Type</b>                              |                                                                                                                           |
| Install & Configure a Standalone Database (default)          | Installs a standalone database                                                                                            |
| Restore a Database                                           | Restores a database using a backup file set                                                                               |
| Upgrade a Database                                           | Upgrades a database                                                                                                       |
| Install & Configure Primary/Standby Database                 | Installs a primary or standby database for a redundant 5620 SAM deployment<br>You must choose this option.                |
| <b>Install &amp; Configure Primary/Standby Database</b>      |                                                                                                                           |

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| Panel and parameters                                          | Description                                                                                                                                                                                                                                                                                                                                         |
|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Primary Database Install (default)                            | Installs the primary database in a redundant deployment<br>You must choose this option.                                                                                                                                                                                                                                                             |
| Convert Standalone Database to Primary                        | Converts a standalone database to the primary database in a redundant deployment                                                                                                                                                                                                                                                                    |
| Standby Database Install                                      | Installs the standby database in a redundant deployment                                                                                                                                                                                                                                                                                             |
| <b>Install Oracle Software</b>                                |                                                                                                                                                                                                                                                                                                                                                     |
| Install Oracle Software (default)                             | Installs the Oracle software<br>You must choose this option.                                                                                                                                                                                                                                                                                        |
| Do not install Oracle Software                                | Does not install the Oracle software                                                                                                                                                                                                                                                                                                                |
| <b>Specify the Base Directory for 5620 SAM Database Files</b> |                                                                                                                                                                                                                                                                                                                                                     |
| Unlabeled field                                               | The directory in which the database files are to be installed<br>Default: /opt/5620sam/samdb/install                                                                                                                                                                                                                                                |
| <b>Specify the Base Directory for Oracle Software</b>         |                                                                                                                                                                                                                                                                                                                                                     |
| Unlabeled field                                               | The directory in which the Oracle files are to be installed<br>Default: /opt/5620sam/oracle10r2                                                                                                                                                                                                                                                     |
| <b>Primary Database Configuration Info</b>                    |                                                                                                                                                                                                                                                                                                                                                     |
| NAT (network address translation) Used                        | If selected, specifies that NAT is used between this database and the main server                                                                                                                                                                                                                                                                   |
| Public IP (accessible to servers)                             | The IP address that the main server must use to reach this database<br>Default: IP address of primary network interface                                                                                                                                                                                                                             |
| Private IP                                                    | The IP address that the NAT router uses to reach this database<br>The parameter is configurable when the NAT (network address translation) Used parameter is selected.                                                                                                                                                                              |
| Database Name                                                 | The name of the database<br>The name must: <ul style="list-style-type: none"> <li>contain 8 or fewer characters</li> <li>consist of ASCII characters only</li> <li>have a letter as the first character</li> <li>not be an Oracle restricted database name; see the appropriate Oracle documentation for more information</li> </ul> Default: samdb |
| Instance Name                                                 | The name that the Oracle software associates with the database processes on this station<br>The name must: <ul style="list-style-type: none"> <li>contain 8 or fewer characters</li> <li>consist of ASCII characters only</li> <li>have a letter as the first character</li> </ul> Default: samdb1                                                  |
| User Name                                                     | The database username<br>Default: samuser                                                                                                                                                                                                                                                                                                           |

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| Panel and parameters                        | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| User Password                               | The database password, which can be set only during installation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Confirm User Password                       | Alcatel-Lucent recommends that you accept the default password, but if you create a new password, it must: <ul style="list-style-type: none"><li>• contain 32 or fewer characters</li><li>• consist of ASCII characters only</li><li>• use at least three of the following character types:<ul style="list-style-type: none"><li>• upper case</li><li>• lower case</li><li>• numeric</li><li>• special (for example, %)</li></ul></li></ul> Ensure that you record the password for future use.<br>Default: available from Alcatel-Lucent technical support |
| Primary Database Configuration Info (cont.) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Database Listener Port                      | The TCP port on this station that the Oracle database listener is to use to communicate with the main servers<br>Default: 1523                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Database Proxy Port                         | The TCP port on this station that each main server is to use for non-JDBC operations<br>Default: 9002                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Database File Server Port                   | The TCP port on this station that the database is to use for file transfers to and from the peer database station<br>Default: 9003                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Oracle SYS Password                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| SYS Password                                | The password that Oracle requires to start the database                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Confirm SYS Password                        | Alcatel-Lucent recommends that you accept the default password.<br>Default: available from Alcatel-Lucent technical support                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Determine Memory Requirements               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Database co-exists with a 5620 SAM server   | If selected, specifies that the database and a main server are to be collocated on this station<br>Default: unselected                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Main Server IP Validation                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Enable SAM Server IP Validation             | If selected, allows only the main servers specified by the Primary SAM Server IP Address and Peer SAM Server IP Address parameters to connect to the database<br>Default: unselected                                                                                                                                                                                                                                                                                                                                                                        |
| Server One IP Address                       | The IP address of the primary main server that is to connect to this database<br>The parameter is configurable when the Enable SAM Server IP Validation parameter is selected.<br>Default: —                                                                                                                                                                                                                                                                                                                                                                |
| Server Two IP Address                       | The IP address of the standby main server that is to connect to this database<br>The parameter is configurable when the Enable SAM Server IP Validation parameter is selected.<br>Default: —                                                                                                                                                                                                                                                                                                                                                                |
| Auxiliary Servers                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| IP Address                                  | The IP address or hostname of the auxiliary server<br>Default: —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Archive Log Destination                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

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| Panel and parameters                                                 | Description                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Unlabeled field                                                      | The directory on this station in which the database is to store the archive logs<br>Database transactions are stored in the archive log directory until a database backup is performed. Alcatel-Lucent recommends that you regularly back up the database to avoid filling the partition that contains the archive log directory.<br>Default: /opt/5620sam/samdb/archivelog                                             |
| <b>Staging Destination</b>                                           |                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Unlabeled field                                                      | The directory that the database is to use for the continuous statistics tablespace backup<br>Default: /opt/5620sam/dbbackup/staging                                                                                                                                                                                                                                                                                     |
| <b>Choose the Redo Log Directory</b>                                 |                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Unlabeled field                                                      | The directory in which the database is to store the redo logs<br>Default: /opt/5620sam/samdb/redolog                                                                                                                                                                                                                                                                                                                    |
| <b>Accounting Statistics Database Retention Period</b>               |                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Accounting Statistics Data Retention Period                          | The length of time, in days, that the database is to retain statistics records<br>Default: 1                                                                                                                                                                                                                                                                                                                            |
| <b>Data Layout Option</b>                                            |                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Multiple Tablespace mapping of Stats and Alarm tablespaces (default) | Separate tablespaces for the statistics and alarm data, and one tablespace for other data                                                                                                                                                                                                                                                                                                                               |
| Multiple Tablespace mapping of all tablespaces                       | Separate tablespaces for the statistics and alarm data, and multiple tablespaces for other data                                                                                                                                                                                                                                                                                                                         |
| <b>Accounting Statistics Data File Directory</b>                     |                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Unlabeled field                                                      | The directory that is to contain the accounting statistics tablespace files<br>Default: /opt/5620sam/samdb/tablespace/statstbs01                                                                                                                                                                                                                                                                                        |
| <b>Standby Database Info</b>                                         |                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Standby IP Address                                                   | The IP address that each main server and the peer database must use to reach this database<br>Default: —                                                                                                                                                                                                                                                                                                                |
| Standby Instance Name                                                | The name that the Oracle software associates with the peer database processes<br>The name must: <ul style="list-style-type: none"> <li>• contain 8 or fewer characters</li> <li>• consist of ASCII characters only</li> <li>• have a letter as the first character</li> </ul> Default: samdb2                                                                                                                           |
| Standby Oracle Home                                                  | The directory on the peer database station in which the Oracle files are to be installed<br>Default: the directory specified in the Specify the Base Directory for Oracle Software panel                                                                                                                                                                                                                                |
| Standby Archive Log Destination                                      | The directory on the peer database station in which the database is to store the archive logs<br>Database transactions are stored in the archive log directory until a database backup is performed. Alcatel-Lucent recommends that you regularly back up the database to avoid filling the partition that contains the archive log directory.<br>Default: the directory specified in the Archive Log Destination panel |

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Table B-4 Standby database installation parameters

| Panel and parameters                                          | Description                                                                                                                                                            |
|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Software License Agreement</b>                             |                                                                                                                                                                        |
| I accept the terms of the License Agreement                   | You accept the license terms and conditions. You must select this parameter before you can proceed to the next panel.                                                  |
| I do NOT accept the terms of the License Agreement (default)  | You do not accept the license terms and conditions. You cannot proceed to the next panel when this parameter is selected.                                              |
| <b>Choose Installation Type</b>                               |                                                                                                                                                                        |
| Install & Configure a Standalone Database (default)           | Installs a standalone database                                                                                                                                         |
| Restore a Database                                            | Restores a database using a backup file set                                                                                                                            |
| Upgrade a Database                                            | Upgrades a database                                                                                                                                                    |
| Install & Configure Primary/Standby Database                  | Installs a primary or standby database for a redundant 5620 SAM deployment<br>You must choose this option.                                                             |
| <b>Install &amp; Configure Primary/Standby Database</b>       |                                                                                                                                                                        |
| Primary Database Install (default)                            | Installs the primary database in a redundant deployment                                                                                                                |
| Convert Standalone Database to Primary                        | Converts a standalone database to the primary database in a redundant deployment                                                                                       |
| Standby Database Install                                      | Installs the standby database in a redundant deployment<br>You must choose this option.                                                                                |
| <b>Install Oracle Software</b>                                |                                                                                                                                                                        |
| Install Oracle Software (default)                             | Installs the Oracle software<br>You must choose this option.                                                                                                           |
| Do not install Oracle Software                                | Does not install the Oracle software                                                                                                                                   |
| <b>Specify the Base Directory for 5620 SAM Database Files</b> |                                                                                                                                                                        |
| Unlabeled field                                               | The directory in which the database files are to be installed<br>Default: /opt/5620sam/samdb/install                                                                   |
| <b>Specify the Base Directory for Oracle Software</b>         |                                                                                                                                                                        |
| Unlabeled field                                               | The directory in which the Oracle files are to be installed<br>Default: /opt/5620sam/oracle10r2                                                                        |
| <b>Standby Database Configuration Info</b>                    |                                                                                                                                                                        |
| NAT (network address translation) Used                        | If selected, specifies that NAT is used between this database and the main server                                                                                      |
| Public IP (accessible to servers)                             | The IP address that the main server must use to reach this database<br>Default: IP address of primary network interface                                                |
| Private IP                                                    | The IP address that the NAT router uses to reach this database<br>The parameter is configurable when the NAT (network address translation) Used parameter is selected. |
| Database Proxy Port                                           | The TCP port on this station that each main server is to use for non-JDBC operations<br>Default: 9002                                                                  |
| <b>Determine Memory Requirements</b>                          |                                                                                                                                                                        |

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| Panel and parameters                      | Description                                                                                                                                                                                                                                                                             |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Database co-exists with a 5620 SAM server | If selected, specifies that the database and a main server are to be collocated on this station<br>Default: unselected                                                                                                                                                                  |
| <b>Main Server IP Validation</b>          |                                                                                                                                                                                                                                                                                         |
| Enable SAM Server IP Validation           | If selected, allows only the main servers specified by the Primary SAM Server IP Address and Peer SAM Server IP Address parameters to connect to the database<br>Default: unselected                                                                                                    |
| Server One IP Address                     | The IP address of the primary main server that is allowed to connect to this database instance<br>The parameter is configurable when the Enable SAM Server IP Validation parameter is selected.<br>Default: —                                                                           |
| Server Two IP Address                     | The IP address of the standby main server that is allowed to connect to this database instance<br>The parameter is configurable when the Enable SAM Server IP Validation parameter is selected.<br>Default: —                                                                           |
| <b>Auxiliary Servers</b>                  |                                                                                                                                                                                                                                                                                         |
| IP Address                                | The IP address or hostname of the auxiliary server<br>Default: —                                                                                                                                                                                                                        |
| <b>Primary Database Info</b>              |                                                                                                                                                                                                                                                                                         |
| Primary IP Address                        | The IP address of the peer database<br>Default: —                                                                                                                                                                                                                                       |
| Primary Instance Name                     | The name that the Oracle software associates with the peer database processes<br>The name must: <ul style="list-style-type: none"> <li>contain 8 or fewer characters</li> <li>consist of ASCII characters only</li> <li>have a letter as the first character</li> </ul> Default: samdb1 |
| Primary SYS Password                      | The password that Oracle requires to start the peer database instance                                                                                                                                                                                                                   |
| Primary Database Listener Port            | The TCP port on the peer database station that the Oracle database listener is to use to communicate with the main server<br>Default: 1523                                                                                                                                              |
| Primary Database Proxy Port               | The TCP port on the peer database station that each main server is to use for non-JDBC operations<br>Default: 9002                                                                                                                                                                      |

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Table B-5 Primary main server installation parameters

| Panel and parameters                        | Description                                                                                                           |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <b>Software License Agreement</b>           |                                                                                                                       |
| I accept the terms of the License Agreement | You accept the license terms and conditions. You must select this parameter before you can proceed to the next panel. |

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| Panel and parameters                                             | Description                                                                                                                                                                                                                      |
|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I do NOT accept the terms of the License Agreement (default)     | You do not accept the license terms and conditions. You cannot proceed to the next panel when this parameter is selected.                                                                                                        |
| <b>Choose Installation Type</b>                                  |                                                                                                                                                                                                                                  |
| Main Server Installation (default)                               | Installs the main server software<br>You must choose this option.                                                                                                                                                                |
| Main Server Configuration                                        | Configures the main server software                                                                                                                                                                                              |
| Auxiliary Server Installation                                    | Installs the auxiliary server software                                                                                                                                                                                           |
| Auxiliary Server Configuration                                   | Configures the auxiliary server software                                                                                                                                                                                         |
| CPAM Server Installation                                         | Installs the 5650 CPAM server software                                                                                                                                                                                           |
| CPAM Server Configuration                                        | Configures the 5650 CPAM server software                                                                                                                                                                                         |
| <b>Specify the Base Directory for 5620 SAM Main Server Files</b> |                                                                                                                                                                                                                                  |
| Unlabeled field                                                  | The directory in which the main server files are to be installed<br>Default: /opt/5620sam/server                                                                                                                                 |
| <b>License Information for 5620 SAM Main Server</b>              |                                                                                                                                                                                                                                  |
| License Key                                                      | The 5620 SAM license key value, which is in the following format:<br>XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX<br>You must include the dashes in the license key value that you enter.<br>Default: —                       |
| <b>Additional Server Configuration</b>                           |                                                                                                                                                                                                                                  |
| Redundancy Supported                                             | If selected, specifies that the 5620 SAM system is deployed in a redundant configuration<br>You must select this parameter.<br>Default: unselected                                                                               |
| Auxiliary Server Supported                                       | If selected, specifies that the 5620 SAM deployment includes one or more auxiliary servers<br>Default: unselected                                                                                                                |
| Client Delegate Server Supported                                 | If selected, specifies that the 5620 SAM deployment includes one or more client delegate servers<br>Default: unselected                                                                                                          |
| Enable LTE Backup File Synchronization                           | If selected, specifies that the 5620 SAM main servers synchronize the LTE backup files with each other<br>The parameter is configurable when the Redundancy Supported parameter is selected.<br>Default: selected                |
| Enable LTE Stats File Synchronization                            | If selected, specifies that the 5620 SAM main servers synchronize the LTE statistics files with each other<br>The parameter is configurable when the Redundancy Supported parameter is selected.<br>Default: selected            |
| Enable SR Backup File Synchronization                            | If selected, specifies that the 5620 SAM main servers synchronize the NE configuration backup files with each other<br>The parameter is configurable when the Redundancy Supported parameter is selected.<br>Default: unselected |
| <b>Primary Database Configuration</b>                            |                                                                                                                                                                                                                                  |
| Primary Database Server IP Address                               | The IP address that this main server must use to reach the primary database station<br>Default: —                                                                                                                                |

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| Panel and parameters                  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Primary Database Server Port          | The TCP port on the primary database station that this main server must use to reach the database<br>The value must match the Database Listener Port value specified on the Primary Database Configuration Info (cont.) panel during the primary database installation.<br>Default: 1523                                                                                                                                                            |
| Primary Database Instance Name        | The name that the Oracle software associates with the database processes on this station<br>The value must match the Instance Name value specified on the Primary Database Configuration Info panel during the primary database installation.<br>Default: samdb1                                                                                                                                                                                    |
| Database User Name                    | The database username<br>The value must match the User Name value specified on the Primary Database Configuration Info panel during the primary database installation.<br>Default: samuser                                                                                                                                                                                                                                                          |
| Database User Password                | The database password<br>The value must match the User Password value specified on the Primary Database Configuration Info panel during the primary database installation.<br>Default: available from Alcatel-Lucent technical support                                                                                                                                                                                                              |
| Primary Database Proxy Port           | The TCP port on the primary database station that this main server is to use for non-JDBC operations<br>The value must match the Database Proxy Port value specified on the Primary Database Configuration Info (cont.) panel during the primary database installation.<br>Default: 9002                                                                                                                                                            |
| <b>Online Database Backup</b>         |                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Online Backup Interval (Hours)        | How often, in hours, the 5620 SAM is to back up the database<br>Default: 24                                                                                                                                                                                                                                                                                                                                                                         |
| Online Backup Destination             | The backup directory on the database station<br>Alcatel-Lucent recommends that you do the following: <ul style="list-style-type: none"> <li>Specify an Online Backup Destination that can hold at least five times the expected database size.</li> <li>Ensure that the available space in the Online Backup Destination is sufficient to accommodate the database growth associated with network growth.</li> </ul> Default: /opt/5620sam/dbbackup |
| Number Of Backup Sets                 | The number of database backup sets that the 5620 SAM is to retain<br>The 5620 SAM creates a separate directory for each backup set. For example, if the Online Backup Destination is /opt/5620sam/dbbackup and the Number Of Backup Sets is 3, the /opt/5620sam/dbbackup directory contains the backupset_1, backupset_2, and backupset_3 subdirectories.<br>Default: 3                                                                             |
| <b>Standby Database Configuration</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Database Server IP Address            | The IP address that this main server must use to reach the standby database station<br>Default: —                                                                                                                                                                                                                                                                                                                                                   |
| Database Instance Name                | The name that the Oracle software associates with the standby database processes<br>Default: samdb2                                                                                                                                                                                                                                                                                                                                                 |
| Database Proxy Port                   | The TCP port on the standby database station that this main server is to use for non-JDBC operations<br>Default: 9002                                                                                                                                                                                                                                                                                                                               |

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| Panel and parameters                                            | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enable Database Backup File Synchronization                     | If selected, specifies that each 5620 SAM database backup file set is copied to the peer database after the backup completes<br>You must configure this parameter the same on each main server.<br>You must ensure that there is sufficient network bandwidth between the database stations before you enable this parameter. See the <i>5620 SAM Planning Guide</i> for information about the bandwidth required for database backup file synchronization. |
| <b>Main Server Configuration for Auxiliary Servers</b>          |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| NAT (network address translation) Used                          | If selected, specifies that NAT is used between this main server and the auxiliary servers<br>Default: unselected                                                                                                                                                                                                                                                                                                                                           |
| Private IP (accessible only by this server)                     | The IP address that the NAT router uses to reach this main server<br>The parameter is configurable when the NAT (network address translation) Used parameter is selected.<br>Default: IP address of primary network interface                                                                                                                                                                                                                               |
| Public IP (accessible to auxiliary)                             | The IP address that the auxiliary servers must use to reach this main server<br>Default: —                                                                                                                                                                                                                                                                                                                                                                  |
| Server port                                                     | The TCP port on this station that the auxiliary servers must use to reach this main server<br>Default: 12800                                                                                                                                                                                                                                                                                                                                                |
| Enable Stats Collection on Auxiliary Servers                    | If selected, specifies that at least one auxiliary server is to be used for statistics collection<br>Default: unselected                                                                                                                                                                                                                                                                                                                                    |
| Enable Call Trace Collection on Auxiliary Servers               | If selected, specifies that at least two auxiliary servers are to be used for call-trace data collection<br>Default: unselected                                                                                                                                                                                                                                                                                                                             |
| <b>Auxiliary Server Configuration</b>                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| IP Address                                                      | The IP address that this main server must use to reach the auxiliary server<br>Default: —                                                                                                                                                                                                                                                                                                                                                                   |
| Port                                                            | The TCP port on the auxiliary server that this main server must use to reach the auxiliary server<br>Default: 12800                                                                                                                                                                                                                                                                                                                                         |
| Type                                                            | Preferred—specifies that the main server uses this auxiliary server under normal conditions<br>Reserved—specifies that the main server uses this auxiliary server when the Preferred auxiliary server is unavailable<br>Default: Preferred                                                                                                                                                                                                                  |
| <b>Database Alignment</b>                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Enable Database Alignment                                       | If selected, enables automatic database alignment<br>Default: unselected                                                                                                                                                                                                                                                                                                                                                                                    |
| <i>IP_address_1:instance_name</i> (Primary Preferred) (default) | If selected, specifies that the database that is the designated primary database is the preferred database of the primary main server<br>The parameter is configurable when the Enable Database Alignment parameter is selected.                                                                                                                                                                                                                            |
| <i>IP_address_2:instance_name</i> (Standby Preferred)           | If selected, specifies that the database that is the designated standby database is the preferred database of the primary main server<br>The parameter is configurable when the Enable Database Alignment parameter is selected.                                                                                                                                                                                                                            |
| <b>Main Server Configuration For Clients</b>                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

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| Panel and parameters                                 | Description                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Server Domain Name                                   | The unique identifier of the 5620 SAM server cluster<br>Default: 5620sam                                                                                                                                                                                                                                                                                             |
| Use Hostname for Communication                       | If selected, specifies that the GUI clients, OSS clients, and auxiliary servers use a hostname, rather than an IP address, to reach this main server<br>Default: unselected                                                                                                                                                                                          |
| NAT (network address translation) Used               | If selected, specifies that NAT is used between this main server and the GUI clients, OSS clients, and auxiliary servers<br>Default: unselected                                                                                                                                                                                                                      |
| Private IP (accessible only by this server)          | The IP address that the NAT router uses to reach this main server<br>The parameter is displayed and configurable when the NAT (network address translation) Used parameter is selected.<br>Default: IP address of primary network interface                                                                                                                          |
| Public Hostname (accessible to clients)              | The hostname that the GUI clients, OSS clients, and auxiliary servers must use to reach this main server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter is selected.<br>Default: —                                                                                                                                 |
| Public IP (accessible to clients)                    | The IP address that the GUI clients, OSS clients, and auxiliary servers must use to reach this main server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter is unselected.<br>Default: —                                                                                                                             |
| EJB JNDI Server port                                 | The TCP port on this station that the GUI clients are to use for EJB JNDI messaging<br>Alcatel-Lucent recommends that you accept the default value unless one of the following is true: <ul style="list-style-type: none"> <li>• Another application uses the port.</li> <li>• There is a firewall between the clients and the main server.</li> </ul> Default: 1099 |
| EJB JMS Server port                                  | The TCP port on this station that the GUI clients are to use for EJB JMS messaging<br>Alcatel-Lucent recommends that you accept the default value unless one of the following is true: <ul style="list-style-type: none"> <li>• Another application uses the port.</li> <li>• There is a firewall between the clients and the main server.</li> </ul> Default: 8093  |
| Enable 5670 RAM                                      | If selected, specifies that a 5670 RAM is to be integrated with the 5620 SAM system<br>Default: unselected                                                                                                                                                                                                                                                           |
| Enable 3GPP OSS Interface                            | If selected, specifies that the 5620 SAM 3GPP OSS interface is to be enabled<br>Default: unselected                                                                                                                                                                                                                                                                  |
| <b>Main Server Configuration for Clients (cont.)</b> |                                                                                                                                                                                                                                                                                                                                                                      |
| RMI Port                                             | The TCP port on the main server station that the GUI clients are to use for JBOSS name service communication, such as requesting objects or functions from the main server<br>In a redundant 5620 SAM deployment, the main servers use this port to share information about the objects and functions that are available to clients.<br>Default: 1098                |
| RMI Object Port                                      | The TCP port on the main server station that the GUI clients are to use for JBOSS messaging, for example, during GUI user operations<br>Default: 4444                                                                                                                                                                                                                |

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| Panel and parameters                                           | Description                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Main Server Configuration for Peer Server</b>               |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| NAT (network address translation) Used                         | If selected, specifies that NAT is used between this main server and the peer main server<br>Default: unselected                                                                                                                                                                                                                                                                                                                   |
| Private IP (accessible only by this server)                    | The IP address that the NAT router uses to reach this main server<br>The parameter is displayed and configurable when the NAT (network address translation) Used parameter is selected.<br>Default: IP address of primary network interface                                                                                                                                                                                        |
| Public IP (accessible to peer server)                          | The IP address that the peer main server must use to reach this main server<br>Default: —                                                                                                                                                                                                                                                                                                                                          |
| High Available JNDI Port                                       | The TCP port on this station that the peer main server is to use for EJB JNDI messaging<br>Alcatel-Lucent recommends that you accept the default value.<br>Default: 1100                                                                                                                                                                                                                                                           |
| TCP Port Cluster Number                                        | The TCP port on this station that is used to communicate with the other server cluster members<br>Alcatel-Lucent recommends that you accept the default value.<br>Default: 11800                                                                                                                                                                                                                                                   |
| <b>User Documentation</b>                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Install User Documentation at Central Location Below (default) | If selected, specifies that the user documentation is to be installed in the central location that you enter in the unlabeled field on the panel                                                                                                                                                                                                                                                                                   |
| Install User Documentation to Client File System               | If selected, specifies that the user documentation is to be installed on the local file system of each GUI client                                                                                                                                                                                                                                                                                                                  |
| Unlabeled field                                                | If Install User Documentation at Central Location Below is selected:<br>An absolute file path or URL that is accessible to the GUI clients; if the location is a URL and NAT is used, the URL must contain a public IP address<br>If Install User Documentation to Client File System is selected:<br>A path on the client file system that is relative to the nms directory under the client installation directory<br>Default: — |
| <b>License Information for 5650 CPAM Server</b>                |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Include 5650 CPAM Server License Information                   | If selected, specifies that a 5650 CPAM is to be integrated with the 5620 SAM system<br>Default: unselected                                                                                                                                                                                                                                                                                                                        |
| Unlabeled field                                                | The 5650 CPAM license key value, which is in the following format:<br>XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX<br>You must include the dashes in the license key value that you enter.<br>The parameter is configurable when the Include 5650 CPAM Server License Information parameter is selected.<br>Default: —                                                                                                          |
| <b>SNMP Configuration</b>                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| NAT (network address translation) Used                         | If selected, specifies that NAT is used between this main server and the managed NEs                                                                                                                                                                                                                                                                                                                                               |
| SNMP Trap Receiving IPv4 Address                               | The IPv4 address that the devices in the managed network must use to reach this main server<br>This parameter is mandatory.<br>Default: —                                                                                                                                                                                                                                                                                          |

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| Panel and parameters                           | Description                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SNMP Trap Receiving IPv6 Address               | The IPv6 address that the devices in the managed network use to reach this main server<br>This parameter is optional.<br>Default: —                                                                                                                                                                                                                                                  |
| SNMP Trap Receiving Port                       | The TCP port on this station that the devices in the managed network must use to reach this main server<br>Default: 162                                                                                                                                                                                                                                                              |
| Trap Log Id                                    | The SNMP trap log ID that is associated with this main server<br>Default: 98                                                                                                                                                                                                                                                                                                         |
| <b>Peer Main Server Configurations</b>         |                                                                                                                                                                                                                                                                                                                                                                                      |
| Peer Server IP Address                         | The IP address that this main server must use to reach the peer main server<br>Default: —                                                                                                                                                                                                                                                                                            |
| Peer Server Trap Log Id                        | The SNMP trap log ID that is associated with the peer main server<br>Default: 98                                                                                                                                                                                                                                                                                                     |
| Peer Server SNMP Trap Receiving IPv4 Address   | The IPv4 address that the devices in the managed network must use to reach the peer main server<br>This parameter is mandatory.<br>Default: —                                                                                                                                                                                                                                        |
| Peer Server SNMP Trap Receiving IPv6 Address   | The IPv6 address that the devices in the managed network use to reach the peer main server<br>This parameter is optional.<br>Default: —                                                                                                                                                                                                                                              |
| Peer Server SNMP Trap Receiving Port           | The TCP port on the peer main server station that the devices in the managed network must use to reach the peer main server<br>Default: 162                                                                                                                                                                                                                                          |
| Peer Server TCP Port Cluster Number            | The TCP port on the peer main server station that the server cluster members must use to reach the peer main server<br>Default: 11800                                                                                                                                                                                                                                                |
| <b>Peer Main Server Configurations (cont.)</b> |                                                                                                                                                                                                                                                                                                                                                                                      |
| 5620 SAM Peer Server Hostname                  | The hostname that the GUI clients, OSS clients, and auxiliary servers must use to reach the peer main server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter in the Main Server Configuration For Clients panel is selected.<br>Default: —                                                                                          |
| 5620 SAM Peer Server IP Address                | The IP address that the GUI clients, OSS clients, and auxiliary servers must use to reach the peer main server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter in the Main Server Configuration For Clients panel is selected.<br>Default: —                                                                                        |
| 5620 SAM JNDI High Available Peer Server Port  | The TCP port on the peer main server station that this main server is to use for EJB JNDI messaging<br>Alcatel-Lucent recommends that you accept the default value unless one of the following is true: <ul style="list-style-type: none"> <li>• Another application uses the port.</li> <li>• There is a firewall between the clients and the main server.</li> </ul> Default: 1100 |

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| Panel and parameters                           | Description                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5620 SAM JNDI Peer Server Port                 | The TCP port on the peer main server station that the GUI clients are to use for EJB JNDI messaging<br>Alcatel-Lucent recommends that you accept the default value unless one of the following is true: <ul style="list-style-type: none"> <li>• Another application uses the port.</li> <li>• There is a firewall between the clients and the main server.</li> </ul> Default: 1099 |
| <b>Navigation from External Systems</b>        |                                                                                                                                                                                                                                                                                                                                                                                      |
| Enable Navigation from External Systems        | If selected, enables the forwarding of 5620 SAM client GUI activity to a 5620 NM<br>Default: unselected                                                                                                                                                                                                                                                                              |
| TCP port for accepting GUI navigation requests | The TCP port on this station that is to accept 5620 NM navigation requests<br>The parameter is configurable when the Enable Navigation from External Systems parameter is selected.<br>Default: —                                                                                                                                                                                    |
| <b>XML Output Directory</b>                    |                                                                                                                                                                                                                                                                                                                                                                                      |
| Unlabeled field                                | The directory that is to contain the output of OSSI file export operations<br>Default: /opt/5620sam/server/xml_output                                                                                                                                                                                                                                                                |
| <b>Installation Complete</b>                   |                                                                                                                                                                                                                                                                                                                                                                                      |
| Start the 5620 SAM Main Server                 | If selected, specifies that the main server is to start automatically after the installation<br>Default: unselected                                                                                                                                                                                                                                                                  |

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Table B-6 Standby main server installation parameters

| Panel and parameters                                             | Description                                                                                                               |
|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <b>Software License Agreement</b>                                |                                                                                                                           |
| I accept the terms of the License Agreement                      | You accept the license terms and conditions. You must select this parameter before you can proceed to the next panel.     |
| I do NOT accept the terms of the License Agreement (default)     | You do not accept the license terms and conditions. You cannot proceed to the next panel when this parameter is selected. |
| <b>Choose Installation Type</b>                                  |                                                                                                                           |
| Main Server Installation (default)                               | Installs the main server software<br>You must choose this option.                                                         |
| Main Server Configuration                                        | Configures the main server software                                                                                       |
| Auxiliary Server Installation                                    | Installs the auxiliary server software                                                                                    |
| Auxiliary Server Configuration                                   | Configures the auxiliary server software                                                                                  |
| CPAM Server Installation                                         | Installs the 5650 CPAM server software                                                                                    |
| CPAM Server Configuration                                        | Configures the 5650 CPAM server software                                                                                  |
| <b>Specify the Base Directory for 5620 SAM Main Server Files</b> |                                                                                                                           |
| Unlabeled field                                                  | The directory in which the main server files are to be installed<br>Default: /opt/5620sam/server                          |

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| Panel and parameters                                | Description                                                                                                                                                                                                                                                                              |
|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>License Information for 5620 SAM Main Server</b> |                                                                                                                                                                                                                                                                                          |
| License Key                                         | The 5620 SAM license key value, which is in the following format:<br>XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX<br>You must include the dashes in the license key value that you enter.<br>Default: —                                                                               |
| <b>Additional Server Configuration</b>              |                                                                                                                                                                                                                                                                                          |
| Redundancy Supported                                | If selected, specifies that the 5620 SAM system is deployed in a redundant configuration<br>You must select this parameter.<br>Default: unselected                                                                                                                                       |
| Auxiliary Server Supported                          | If selected, specifies that the 5620 SAM deployment includes one or more auxiliary servers<br>Default: unselected                                                                                                                                                                        |
| Client Delegate Server Supported                    | If selected, specifies that the 5620 SAM deployment includes one or more client delegate servers<br>Default: unselected                                                                                                                                                                  |
| Enable LTE Backup File Synchronization              | If selected, specifies that the 5620 SAM main servers synchronize the LTE backup files with each other<br>The parameter is configurable when the Redundancy Supported parameter is selected.<br>Default: selected                                                                        |
| Enable LTE Stats File Synchronization               | If selected, specifies that the 5620 SAM main servers synchronize the LTE statistics files with each other<br>The parameter is configurable when the Redundancy Supported parameter is selected.<br>Default: selected                                                                    |
| Enable SR Backup File Synchronization               | If selected, specifies that the 5620 SAM main servers synchronize the NE configuration backup files with each other<br>The parameter is configurable when the Redundancy Supported parameter is selected.<br>Default: unselected                                                         |
| <b>Primary Database Configuration</b>               |                                                                                                                                                                                                                                                                                          |
| Primary Database Server IP Address                  | The IP address that this main server must use to reach the primary database station<br>Default: —                                                                                                                                                                                        |
| Primary Database Server Port                        | The TCP port on the primary database station that this main server must use to reach the database<br>The value must match the Database Listener Port value specified on the Primary Database Configuration Info (cont.) panel during the primary database installation.<br>Default: 1523 |
| Primary Database Instance Name                      | The name that the Oracle software associates with the primary database processes<br>The value must match the Instance Name value specified on the Primary Database Configuration Info panel during the primary database installation.<br>Default: samdb1                                 |
| Database User Name                                  | The database username<br>The value must match the User Name value specified on the Primary Database Configuration Info panel during the primary database installation.<br>Default: samuser                                                                                               |
| Database User Password                              | The database password<br>The value must match the User Password value specified on the Primary Database Configuration Info panel during the database installation.<br>Default: available from Alcatel-Lucent technical support                                                           |

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| Panel and parameters                                   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Primary Database Proxy Port                            | The TCP port on the primary database station that this main server is to use for non-JDBC operations<br>The value must match the Database Proxy Port value specified on the Primary Database Configuration Info (cont.) panel during the primary database installation.<br>Default: 9002                                                                                                                                                                    |
| <b>Online Database Backup</b>                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Online Backup Interval (Hours)                         | How often, in hours, the 5620 SAM is to back up the database<br>Default: 24                                                                                                                                                                                                                                                                                                                                                                                 |
| Online Backup Destination                              | The backup directory on the database station<br>Alcatel-Lucent recommends that you do the following: <ul style="list-style-type: none"> <li>Specify an Online Backup Destination that can hold at least five times the expected database size.</li> <li>Ensure that the available space in the Online Backup Destination is sufficient to accommodate the database growth associated with network growth.</li> </ul> Default: /opt/5620sam/dbbackup         |
| Number Of Backup Sets                                  | The number of database backup sets that the 5620 SAM is to retain<br>The 5620 SAM creates a separate directory for each backup set. For example, if the Online Backup Destination is /opt/5620sam/dbbackup and the Number Of Backup Sets is 3, the /opt/5620sam/dbbackup directory contains the backupset_1, backupset_2, and backupset_3 subdirectories.<br>Default: 3                                                                                     |
| <b>Standby Database Configuration</b>                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Database Server IP Address                             | The IP address that this main server must use to reach the standby database station<br>Default: —                                                                                                                                                                                                                                                                                                                                                           |
| Database Instance Name                                 | The name that the Oracle software associates with the standby database processes<br>Default: samdb2                                                                                                                                                                                                                                                                                                                                                         |
| Database Proxy Port                                    | The TCP port on the standby database station that this main server is to use for non-JDBC operations<br>Default: 9002                                                                                                                                                                                                                                                                                                                                       |
| Enable Database Backup File Synchronization            | If selected, specifies that each 5620 SAM database backup file set is copied to the peer database after the backup completes<br>You must configure this parameter the same on each main server.<br>You must ensure that there is sufficient network bandwidth between the database stations before you enable this parameter. See the <i>5620 SAM Planning Guide</i> for information about the bandwidth required for database backup file synchronization. |
| <b>Main Server Configuration for Auxiliary Servers</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| NAT (network address translation) Used                 | If selected, specifies that NAT is used between this main server and the auxiliary servers<br>Default: unselected                                                                                                                                                                                                                                                                                                                                           |
| Private IP (accessible only by this server)            | The IP address that the NAT router uses to reach this main server<br>The parameter is configurable when the NAT (network address translation) Used parameter is selected.<br>Default: IP address of primary network interface                                                                                                                                                                                                                               |
| Public IP (accessible to auxiliary)                    | The IP address that the auxiliary servers must use to reach this main server<br>Default: —                                                                                                                                                                                                                                                                                                                                                                  |
| Server port                                            | The TCP port on this station that the auxiliary servers must use to reach this main server<br>Default: 12800                                                                                                                                                                                                                                                                                                                                                |

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| Panel and parameters                                               | Description                                                                                                                                                                                                                                 |
|--------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enable Stats Collection on Auxiliary Servers                       | If selected, specifies that at least one auxiliary server is to be used for statistics collection<br>Default: unselected                                                                                                                    |
| Enable Call Trace Collection on Auxiliary Servers                  | If selected, specifies that at least two auxiliary servers are to be used for call-trace data collection<br>Default: unselected                                                                                                             |
| <b>Auxiliary Server Configuration</b>                              |                                                                                                                                                                                                                                             |
| IP Address                                                         | The IP address that this main server must use to reach the auxiliary server<br>Default: —                                                                                                                                                   |
| Port                                                               | The TCP port on the auxiliary server that this main server must use to reach the auxiliary server<br>Default: 12800                                                                                                                         |
| Type                                                               | Preferred—specifies that the main server uses this auxiliary server under normal conditions<br>Reserved—specifies that the main server uses this auxiliary server when the Preferred auxiliary server is unavailable<br>Default: Preferred  |
| <b>Database Alignment</b>                                          |                                                                                                                                                                                                                                             |
| Enable Database Alignment                                          | If selected, enables automatic database alignment<br>Default: unselected                                                                                                                                                                    |
| <i>IP_address_1:instance_name</i><br>(Primary Preferred)           | If selected, specifies that the database that is the designated primary database is the preferred database of the primary main server<br>The parameter is configurable when the Enable Database Alignment parameter is selected.            |
| <i>IP_address_2:instance_name</i><br>(Standby Preferred) (default) | If selected, specifies that the database that is the designated standby database is the preferred database of the primary main server<br>The parameter is configurable when the Enable Database Alignment parameter is selected.            |
| <b>Main Server Configuration For Clients</b>                       |                                                                                                                                                                                                                                             |
| Server Domain Name                                                 | The unique identifier of the 5620 SAM server cluster<br>Default: 5620sam                                                                                                                                                                    |
| Use Hostname for Communication                                     | If selected, specifies that the GUI clients, OSS clients, and auxiliary servers use a hostname, rather than an IP address, to reach the main server<br>Default: unselected                                                                  |
| NAT (network address translation) Used                             | If selected, specifies that NAT is used between this main server and the GUI clients, OSS clients, and auxiliary servers<br>Default: unselected                                                                                             |
| Private IP (accessible only by this server)                        | The IP address that the NAT router uses to reach this main server<br>The parameter is displayed and configurable when the NAT (network address translation) Used parameter is selected.<br>Default: IP address of primary network interface |
| Public Hostname (accessible to clients)                            | The hostname that the GUI clients, OSS clients, and auxiliary servers must use to reach the main server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter is selected.<br>Default: —         |

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| Panel and parameters                                 | Description                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Public IP (accessible to clients)                    | The IP address that the GUI clients, OSS clients, and auxiliary servers must use to reach this main server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter is unselected.<br>Default: —                                                                                                                                       |
| EJB JNDI Server port                                 | The TCP port on this station that the GUI clients are to use for EJB JNDI messaging<br>Alcatel-Lucent recommends that you accept the default value unless one of the following is true: <ul style="list-style-type: none"> <li>Another application uses the port.</li> <li>There is a firewall between the clients and the main server.</li> </ul> Default: 1099               |
| EJB JMS Server port                                  | The TCP port on this station that the GUI clients are to use for EJB JMS messaging<br>Alcatel-Lucent recommends that you accept the default value unless one of the following is true: <ul style="list-style-type: none"> <li>Another application uses the port.</li> <li>There is a firewall between the clients and the main server.</li> </ul> Default: 8093                |
| Enable 5670 RAM                                      | If selected, specifies that a 5670 RAM is to be integrated with the 5620 SAM system<br>Default: unselected                                                                                                                                                                                                                                                                     |
| Enable 3GPP OSS Interface                            | If selected, specifies that the 5620 SAM 3GPP OSS interface is to be enabled<br>Default: unselected                                                                                                                                                                                                                                                                            |
| <b>Main Server Configuration for Clients (cont.)</b> |                                                                                                                                                                                                                                                                                                                                                                                |
| RMI Port                                             | The TCP port on the main server station that the GUI clients are to use for JBOSS name service communication, such as requesting objects or functions from the main server<br>In a redundant 5620 SAM deployment, the main servers use this port to share information about the objects and functions that are available to clients.<br>Default: 1098                          |
| RMI Object Port                                      | The TCP port on the main server station that the GUI clients are to use for JBOSS messaging, for example, during GUI user operations<br>Default: 4444                                                                                                                                                                                                                          |
| <b>Main Server Configuration for Peer Server</b>     |                                                                                                                                                                                                                                                                                                                                                                                |
| NAT (network address translation) Used               | If selected, specifies that NAT is used between this main server and the peer main server<br>Default: unselected                                                                                                                                                                                                                                                               |
| Private IP (accessible only by this server)          | The IP address that the NAT router uses to reach this main server<br>The parameter is displayed and configurable when the NAT (network address translation) Used parameter is selected.<br>Default: IP address of primary network interface                                                                                                                                    |
| Public IP (accessible to peer server)                | The IP address that the peer main server must use to reach this main server<br>Default: —                                                                                                                                                                                                                                                                                      |
| High Available JNDI Port                             | The TCP port on this station that the peer main server is to use for EJB JNDI messaging<br>Alcatel-Lucent recommends that you accept the default value unless one of the following is true: <ul style="list-style-type: none"> <li>Another application uses the port.</li> <li>There is a firewall between the peer main server and this main server.</li> </ul> Default: 1100 |

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| Panel and parameters                                           | Description                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TCP Port Cluster Number                                        | The TCP port on this station that is used to communicate with the other server cluster members<br>Default: 11800                                                                                                                                                                                                                                                                                                                   |
| <b>User Documentation</b>                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Install User Documentation at Central Location Below (default) | If selected, specifies that the user documentation is to be installed in the central location that you enter in the unlabeled field on the panel                                                                                                                                                                                                                                                                                   |
| Install User Documentation to Client File System               | If selected, specifies that the user documentation is to be installed on the local file system of each GUI client                                                                                                                                                                                                                                                                                                                  |
| Unlabeled field                                                | If Install User Documentation at Central Location Below is selected:<br>An absolute file path or URL that is accessible to the GUI clients; if the location is a URL and NAT is used, the URL must contain a public IP address<br>If Install User Documentation to Client File System is selected:<br>A path on the client file system that is relative to the nms directory under the client installation directory<br>Default: — |
| <b>License Information for 5650 CPAM Server</b>                |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Include 5650 CPAM Server License Information                   | If selected, specifies that a 5650 CPAM is to be integrated with the 5620 SAM system<br>Default: unselected                                                                                                                                                                                                                                                                                                                        |
| Unlabeled field                                                | The 5650 CPAM license key value, which is in the following format:<br>XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX<br>You must include the dashes in the license key value that you enter.<br>The parameter is configurable when the Include 5650 CPAM Server License Information parameter is selected.<br>Default: —                                                                                                          |
| <b>SNMP Configuration</b>                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| NAT (network address translation) Used                         | If selected, specifies that NAT is used between this main server and the managed NEs                                                                                                                                                                                                                                                                                                                                               |
| SNMP Trap Receiving IPv4 Address                               | The IP address that the devices in the managed network must use to reach this main server<br>This parameter is mandatory.<br>Default: —                                                                                                                                                                                                                                                                                            |
| SNMP Trap Receiving IPv6 Address                               | The IPv6 address that the devices in the managed network use to reach this main server<br>This parameter is optional.<br>Default: —                                                                                                                                                                                                                                                                                                |
| SNMP Trap Receiving Port                                       | The TCP port on this station that the devices in the managed network must use to reach this main server<br>Default: 162                                                                                                                                                                                                                                                                                                            |
| Trap Log Id                                                    | The SNMP trap log ID that is associated with this main server<br>Default: 98                                                                                                                                                                                                                                                                                                                                                       |
| <b>Peer Main Server Configurations</b>                         |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Peer Server IP Address                                         | The IP address that this main server must use to reach the peer main server<br>Default: —                                                                                                                                                                                                                                                                                                                                          |
| Peer Server Trap Log Id                                        | The SNMP trap log ID that is associated with the peer main server<br>Default: 98                                                                                                                                                                                                                                                                                                                                                   |

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| Panel and parameters                           | Description                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Peer Server SNMP Trap Receiving IPv4 Address   | The IPv4 address that the devices in the managed network must use to reach the peer main server<br>This parameter is mandatory.<br>Default: —                                                                                                                                                                                                                                        |
| Peer Server SNMP Trap Receiving IPv6 Address   | The IPv6 address that the devices in the managed network use to reach the peer main server<br>This parameter is optional.<br>Default: —                                                                                                                                                                                                                                              |
| Peer Server SNMP Trap Receiving Port           | The TCP port on the peer main server station that the devices in the managed network must use to reach the peer main server<br>Default: 162                                                                                                                                                                                                                                          |
| Peer Server TCP Port Cluster Number            | The TCP port on the peer main server station that the server cluster members must use to reach the peer main server<br>Default: 11800                                                                                                                                                                                                                                                |
| <b>Peer Main Server Configurations (cont.)</b> |                                                                                                                                                                                                                                                                                                                                                                                      |
| 5620 SAM Peer Server Hostname                  | The hostname that the GUI clients, OSS clients, and auxiliary servers must use to reach the peer main server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter in the Main Server Configuration For Clients panel is selected.<br>Default: —                                                                                          |
| 5620 SAM Peer Server IP Address                | The IP address that the GUI clients, OSS clients, and auxiliary servers must use to reach the peer main server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter is selected in the Main Server Configuration For Clients panel.<br>Default: —                                                                                        |
| 5620 SAM JNDI High Available Peer Server Port  | The TCP port on the peer main server station that this main server is to use for EJB JNDI messaging<br>Alcatel-Lucent recommends that you accept the default value unless one of the following is true: <ul style="list-style-type: none"> <li>• Another application uses the port.</li> <li>• There is a firewall between the clients and the main server.</li> </ul> Default: 1100 |
| 5620 SAM JNDI Peer Server Port                 | The TCP port on the peer main server station that the GUI clients are to use for EJB JNDI messaging<br>Alcatel-Lucent recommends that you accept the default value unless one of the following is true: <ul style="list-style-type: none"> <li>• Another application uses the port.</li> <li>• There is a firewall between the clients and the main server.</li> </ul> Default: 1099 |
| <b>Navigation from External Systems</b>        |                                                                                                                                                                                                                                                                                                                                                                                      |
| Enable Navigation from External Systems        | If selected, enables the forwarding of 5620 SAM client GUI activity to a 5620 NM<br>Default: unselected                                                                                                                                                                                                                                                                              |
| TCP port for accepting GUI navigation requests | The TCP port on this station that is to accept 5620 NM navigation requests<br>The parameter is configurable when the Enable Navigation from External Systems parameter is selected.<br>Default: —                                                                                                                                                                                    |

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| Panel and parameters           | Description                                                                                                           |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <b>XML Output Directory</b>    |                                                                                                                       |
| Unlabeled field                | The directory that is to contain the output of OSSl file export operations<br>Default: /opt/5620sam/server/xml_output |
| <b>Installation Complete</b>   |                                                                                                                       |
| Start the 5620 SAM Main Server | If selected, specifies that the main server is to start automatically after the installation<br>Default: unselected   |

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### B.3 Auxiliary server installation parameters

Table B-7 lists and describes the parameters that are configurable during a 5620 SAM auxiliary server installation. The parameters are grouped by installer panel in the order that the panels are displayed.

Table B-7 Auxiliary server installation parameters

| Panel and parameters                                                  | Description                                                                                                               |
|-----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <b>Software License Agreement</b>                                     |                                                                                                                           |
| I accept the terms of the License Agreement                           | You accept the license terms and conditions. You must select this parameter before you can proceed to the next panel.     |
| I do NOT accept the terms of the License Agreement (default)          | You do not accept the license terms and conditions. You cannot proceed to the next panel when this parameter is selected. |
| <b>Choose Installation Type</b>                                       |                                                                                                                           |
| Main Server Installation (default)                                    | Installs the main server software                                                                                         |
| Main Server Configuration                                             | Configures the main server software                                                                                       |
| Auxiliary Server Installation                                         | Installs the auxiliary server software<br>You must choose this option.                                                    |
| Auxiliary Server Configuration                                        | Configures the auxiliary server software                                                                                  |
| CPAM Server Installation                                              | Installs the 5650 CPAM server software                                                                                    |
| CPAM Server Configuration                                             | Configures the 5650 CPAM server software                                                                                  |
| <b>Specify the Base Directory for 5620 SAM Auxiliary Server Files</b> |                                                                                                                           |
| Unlabeled field                                                       | The directory in which the auxiliary server files are to be installed<br>Default: /opt/5620sam/auxserver                  |
| <b>Auxiliary Server Address Configuration</b>                         |                                                                                                                           |
| Server Domain Name                                                    | The unique identifier of the 5620 SAM server cluster<br>Default: 5620sam                                                  |
| NAT (network address translation) Used                                | If selected, specifies that NAT is used between this auxiliary server and the main servers<br>Default: unselected         |

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| Panel and parameters                             | Description                                                                                                                                                                                                                                      |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Private IP (accessible only by this server)      | The IP address that the NAT router uses to reach this auxiliary server<br>The parameter is displayed and configurable when the NAT (network address translation) Used parameter is selected.<br>Default: IP address of primary network interface |
| Public IP (accessible to servers)                | The IP address that each main server must use to reach this auxiliary server<br>Default: —                                                                                                                                                       |
| Server Port                                      | The TCP port on this station that this auxiliary server is to use to communicate with the main server<br>Default: 12800                                                                                                                          |
| Redundancy Supported On the 5620 SAM Main Server | If selected, specifies that the 5620 SAM system is deployed in a redundant configuration<br>Default: unselected                                                                                                                                  |
| Enable Stats Service                             | If selected, specifies that the 5620 SAM auxiliary server is to be used for statistics data collection<br>Default: selected                                                                                                                      |
| Enable Call Trace Service                        | If selected, specifies that the 5620 SAM auxiliary server is to be used for call trace data collection<br>Default: unselected                                                                                                                    |
| <b>Auxiliary Server Call Trace Configuration</b> |                                                                                                                                                                                                                                                  |
| IPv6 Address Used                                | If selected, specifies that an IPv6 address on the auxiliary server in addition to an IPv4 address is used for call trace data collection<br>Default: unselected                                                                                 |
| Call Trace Receiving IPv4 Address                | The IPv4 address that the NAT router uses to reach this auxiliary server; if NAT is used, this is a public address<br>Default: IP address of primary network interface                                                                           |
| Call Trace Receiving IPv6 Address                | The IPv6 address that the NAT router uses to reach this auxiliary server; if NAT is used, this is a public address<br>The parameter is displayed and configurable when the IPv6 Address Used parameter is selected.<br>Default: —                |
| Call Trace Receiving Directory                   | The local directory in which call trace data is stored<br>Default: /opt/5620sam/calltrace                                                                                                                                                        |
| Debug Trace Receiving Directory                  | The local directory in which debug trace data is stored<br>Default: /opt/5620sam/debugtrace                                                                                                                                                      |
| <b>Synchronization of Call Trace Data</b>        |                                                                                                                                                                                                                                                  |
| Enable Synchronization of Call Trace Data        | If selected, specifies that an IPv6 address on the auxiliary server in addition to an IPv4 address is used for call trace data collection<br>Default: selected                                                                                   |
| Local IP Address                                 | The IPv4 address that the other auxiliary server in the call-trace auxiliary server pair uses to reach this auxiliary server; if NAT is used, this is a public address<br>Default: IP address of primary network interface                       |
| Remote IP Address                                | The IPv4 address that this auxiliary server uses to reach the other auxiliary server in the call-trace auxiliary server pair; if NAT is used, this is a public address<br>Default: —                                                             |
| <b>Main Server Configuration</b>                 |                                                                                                                                                                                                                                                  |

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| Panel and parameters                | Description                                                                                                                                                                                                                                                                                                                             |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Server IP Address                   | The IP address that this auxiliary server must use to reach the main server in a standalone deployment<br>The parameter is displayed and configurable when the Redundancy Supported On the 5620 SAM Main Server parameter in the Auxiliary Server Address Configuration panel is unselected.<br>Default: —                              |
| Server Port                         | The TCP port on the main server station in a standalone deployment that this auxiliary server must use to reach the main server<br>The parameter is displayed and configurable when the Redundancy Supported On the 5620 SAM Main Server parameter in the Auxiliary Server Address Configuration panel is unselected.<br>Default: 12800 |
| Server One IP Address               | The IP address that this auxiliary server must use to reach the primary main server in a redundant deployment<br>The parameter is displayed and configurable when the Redundancy Supported On the 5620 SAM Main Server parameter in the Auxiliary Server Address Configuration panel is selected.<br>Default: —                         |
| Server One Port                     | The TCP port on the primary main server in a redundant deployment that this auxiliary server must use to reach the main server<br>The parameter is displayed and configurable when the Redundancy Supported On the 5620 SAM Main Server parameter in the Auxiliary Server Address Configuration panel is selected.<br>Default: 12800    |
| Server Two IP Address               | The IP address that this auxiliary server must use to reach the standby main server in a redundant deployment<br>The parameter is displayed and configurable when the Redundancy Supported On the 5620 SAM Main Server parameter in the Auxiliary Server Address Configuration panel is selected.<br>Default: —                         |
| Server Two Port                     | The TCP port on the standby main server in a redundant deployment that this auxiliary server must use to reach the main server<br>The parameter is displayed and configurable when the Redundancy Supported On the 5620 SAM Main Server parameter in the Auxiliary Server Address Configuration panel is selected.<br>Default: 12800    |
| <b>XML Output Directory</b>         |                                                                                                                                                                                                                                                                                                                                         |
| Unlabeled field                     | The directory that is to contain the output of OSSl file export operations<br>Default: /opt/5620sam/auxserver/xml_output                                                                                                                                                                                                                |
| <b>Installation Complete</b>        |                                                                                                                                                                                                                                                                                                                                         |
| Start the 5620 SAM Auxiliary Server | If selected, specifies that the auxiliary server is to start automatically after the installation<br>Default: unselected                                                                                                                                                                                                                |

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## B.4 Single-user client and client delegate server installation parameters for Solaris

Table B-8 lists and describes the parameters that are configurable during a 5620 SAM single-user client or client delegate server installation. The parameters are grouped by installer panel in the order that the panels are displayed.

Table B-8 Single-user client and client delegate server installation parameters for Solaris

| Panel and parameters                                         | Description                                                                                                                                                                                                   |
|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Software License Agreement</b>                            |                                                                                                                                                                                                               |
| I accept the terms of the License Agreement                  | You accept the license terms and conditions. You must select this parameter before you can proceed to the next panel.                                                                                         |
| I do NOT accept the terms of the License Agreement (default) | You do not accept the license terms and conditions. You cannot proceed to the next panel when this parameter is selected.                                                                                     |
| <b>Choose Installation Type</b>                              |                                                                                                                                                                                                               |
| Client Installation and Configuration (default)              | Installs the single-user client software                                                                                                                                                                      |
| Client Delegate Installation and Configuration               | Installs the client delegate server software                                                                                                                                                                  |
| Client Configuration                                         | Configures the single-user client or client delegate server software                                                                                                                                          |
| <b>Specify the Base Directory for 5620 SAM Client Files</b>  |                                                                                                                                                                                                               |
| Unlabeled field                                              | The directory in which the client files are to be installed<br>Default: /opt/5620sam/client                                                                                                                   |
| <b>Main Server Configuration</b>                             |                                                                                                                                                                                                               |
| Server IP Address                                            | The IP address that the client software must use to reach the main server in a standalone deployment or the primary main server in a redundant deployment<br>Default: —                                       |
| Redundancy Support                                           | If selected, specifies that the 5620 SAM system is a redundant deployment<br>Default: unselected                                                                                                              |
| Server Two IP Address                                        | The IP address that the client software must use to reach the standby main server in a redundant deployment<br>The parameter is configurable when the Redundancy Support parameter is selected.<br>Default: — |
| <b>Installation Complete</b>                                 |                                                                                                                                                                                                               |
| Start the 5620 SAM Client                                    | If selected, specifies that the client software is to start automatically after the installation<br>Default: selected                                                                                         |





## *C. 5620 SAM upgrade parameters for Solaris*

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- C.1 Standalone database and main server upgrade parameters for Solaris C-2
- C.2 Redundant database and main server upgrade parameters C-7
- C.3 Auxiliary server upgrade parameters C-20

## C.1 Standalone database and main server upgrade parameters for Solaris

Tables C-1 and C-2 list and describe the configurable parameters for a standalone 5620 SAM database and main server upgrade on Solaris. The tables are presented in an order that follows the standalone upgrade workflow in chapter 4. The parameters in each table are grouped by installer panel in the order that the panels are displayed.



**Note** — Unless stated, the default value for a parameter is the value specified during the previous upgrade or installation.

Table C-1 Standalone database upgrade parameters

| Panel and parameters                                                    | Description                                                                                                                                                            |
|-------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Software License Agreement</b>                                       |                                                                                                                                                                        |
| I accept the terms of the License Agreement                             | You accept the license terms and conditions. You must select this parameter before you can proceed to the next panel.                                                  |
| I do NOT accept the terms of the License Agreement (default)            | You do not accept the license terms and conditions. You cannot proceed to the next panel when this parameter is selected.                                              |
| <b>Choose Installation Type</b>                                         |                                                                                                                                                                        |
| Install & Configure a Standalone Database (default)                     | Installs a standalone database                                                                                                                                         |
| Restore a Database                                                      | Restores a database using a backup file set                                                                                                                            |
| Upgrade a Database                                                      | Upgrades a database<br>You must choose this option.                                                                                                                    |
| Install & Configure Primary/Standby Database                            | Installs a primary or standby database for a redundant 5620 SAM deployment                                                                                             |
| <b>Specify the Installation Root Directory of the 5620 SAM Database</b> |                                                                                                                                                                        |
| Unlabeled field                                                         | The directory in which the database files are installed                                                                                                                |
| <b>Get Upgrade Database Info</b>                                        |                                                                                                                                                                        |
| NAT (network address translation) Used                                  | If selected, specifies that NAT is used between this database and the main server                                                                                      |
| Public IP (accessible to servers)                                       | The IP address that the main server must use to reach this database                                                                                                    |
| Private IP                                                              | The IP address that the NAT router uses to reach this database<br>The parameter is configurable when the NAT (network address translation) Used parameter is selected. |
| Database Name                                                           | The name of the database                                                                                                                                               |
| Instance Name                                                           | The name that the Oracle software associates with the database processes                                                                                               |
| User Name                                                               | The database username                                                                                                                                                  |
| User Password                                                           | The database password, which can be set only during installation                                                                                                       |
| <b>Get Upgrade Database Info (cont.)</b>                                |                                                                                                                                                                        |

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| Panel and parameters                                   | Description                                                                                                                                                              |
|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Database Listener Port                                 | The TCP port on this station that the Oracle database listener uses to communicate with the main server                                                                  |
| Database Proxy Port                                    | The TCP port on this station that the main server is to use for non-JDBC operations                                                                                      |
| <b>Determine Memory Requirements</b>                   |                                                                                                                                                                          |
| Database co-exists with a 5620 SAM server              | If selected, specifies that the database and main server are collocated on this station                                                                                  |
| <b>Main Server IP Validation</b>                       |                                                                                                                                                                          |
| Enable SAM Server IP Validation                        | If selected, allows only the main server specified by the SAM Server IP Address parameter to connect to the database                                                     |
| SAM Server IP Address                                  | The IP address of the only main server that can connect to the database<br>The parameter is configurable when the Enable SAM Server IP Validation parameter is selected. |
| <b>Auxiliary Servers</b>                               |                                                                                                                                                                          |
| IP Address                                             | The IP address or hostname of the auxiliary server                                                                                                                       |
| <b>Staging Destination</b>                             |                                                                                                                                                                          |
| Unlabeled field                                        | The directory that the database is to use for the continuous statistics tablespace backup                                                                                |
| <b>Accounting Statistics Database Retention Period</b> |                                                                                                                                                                          |
| Accounting Statistics Data Retention Period            | The length of time, in days, that the database is to retain statistics records                                                                                           |
| <b>Purge Statistics</b>                                |                                                                                                                                                                          |
| Purge All Accounting Statistics                        | Permanently delete the accounting statistics data from the database to reduce the time required for the database upgrade<br>Default: unselected                          |
| Purge All MIB Statistics                               | Permanently delete the MIB statistics data from the database to reduce the time required for the database upgrade<br>Default: unselected                                 |

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Table C-2 Standalone main server upgrade parameters

| Panel and parameters                                         | Description                                                                                                               |
|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <b>Software License Agreement</b>                            |                                                                                                                           |
| I accept the terms of the License Agreement                  | You accept the license terms and conditions. You must select this parameter before you can proceed to the next panel.     |
| I do NOT accept the terms of the License Agreement (default) | You do not accept the license terms and conditions. You cannot proceed to the next panel when this parameter is selected. |
| <b>Choose Installation Type</b>                              |                                                                                                                           |
| Main Server Installation (default)                           | Installs the main server software<br>You must choose this option.                                                         |
| Main Server Configuration                                    | Configures the main server software                                                                                       |
| Auxiliary Server Installation                                | Installs the auxiliary server software                                                                                    |

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| Panel and parameters                                             | Description                                                                                                                                                                                                                                            |
|------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Auxiliary Server Configuration                                   | Configures the auxiliary server software                                                                                                                                                                                                               |
| CPAM Server Installation                                         | Installs the 5650 CPAM server software                                                                                                                                                                                                                 |
| CPAM Server Configuration                                        | Configures the 5650 CPAM server software                                                                                                                                                                                                               |
| <b>Specify the Base Directory for 5620 SAM Main Server Files</b> |                                                                                                                                                                                                                                                        |
| Unlabeled field                                                  | The directory in which the main server files are installed<br>Default: /opt/5620sam/server                                                                                                                                                             |
| <b>License Information for 5620 SAM Main Server</b>              |                                                                                                                                                                                                                                                        |
| License Key                                                      | The 5620 SAM license key value, which is in the following format:<br>XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX<br>You must include the dashes in the license key value that you enter.                                                           |
| <b>Additional Server Configuration</b>                           |                                                                                                                                                                                                                                                        |
| Redundancy Supported                                             | If selected, specifies that the 5620 SAM system is deployed in a redundant configuration<br>You must leave this parameter unselected.                                                                                                                  |
| Auxiliary Server Supported                                       | If selected, specifies that the 5620 SAM deployment includes one or more auxiliary servers.                                                                                                                                                            |
| Client Delegate Server Supported                                 | If selected, specifies that the 5620 SAM deployment includes one or more client delegate servers.                                                                                                                                                      |
| <b>Database Configuration</b>                                    |                                                                                                                                                                                                                                                        |
| Database Server IP Address                                       | The IP address that the main server must use to reach the database station<br>The value must match the Database Server IP Address value specified on the General Database Configuration Info panel during the database installation.                   |
| Database Server Port                                             | The TCP port on the database station that the main server uses to reach the database<br>The value must match the Database Listener Port value specified on the General Database Configuration Info (cont.) panel during the database installation.     |
| Database Instance Name                                           | The name that the Oracle software associates with the database processes<br>The value must match the Instance Name value specified on the General Database Configuration Info panel during the database installation.                                  |
| Database User Name                                               | The database username<br>The value must match the User Name value specified on the General Database Configuration Info panel during the database installation.                                                                                         |
| Database User Password                                           | The database password<br>The value must match the User Password value specified on the General Database Configuration Info panel during the database installation.                                                                                     |
| Database Proxy Port                                              | The TCP port on the database station that the main server is to use for non-JDBC operations<br>The value must match the Database Proxy Port value specified on the General Database Configuration Info (cont.) panel during the database installation. |
| <b>Online Database Backup</b>                                    |                                                                                                                                                                                                                                                        |
| Online Backup Interval (Hours)                                   | How often, in hours, the 5620 SAM is to back up the database                                                                                                                                                                                           |
| Online Backup Destination                                        | The backup directory on the database station                                                                                                                                                                                                           |
| Number Of Backup Sets                                            | The number of database backup sets that the 5620 SAM is to retain                                                                                                                                                                                      |
| <b>Main Server Configuration for Auxiliary Servers</b>           |                                                                                                                                                                                                                                                        |
| NAT (network address translation) Used                           | If selected, specifies that NAT is used between the main server and the auxiliary servers                                                                                                                                                              |

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| Panel and parameters                                 | Description                                                                                                                                                                                                           |
|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Private IP (accessible only by this server)          | The IP address that the NAT router uses to reach the main server<br>The parameter is configurable when the NAT (network address translation) Used parameter is selected.                                              |
| Public IP (accessible to auxiliary)                  | The IP address that the auxiliary servers must use to reach the main server                                                                                                                                           |
| Server port                                          | The TCP port on this station that the auxiliary servers use to reach the main server                                                                                                                                  |
| Enable Stats Collection on Auxiliary Servers         | If selected, specifies that at least one auxiliary server is to be used for statistics collection                                                                                                                     |
| Enable Call Trace Collection on Auxiliary Servers    | If selected, specifies that at least two auxiliary servers are to be used for call-trace data collection                                                                                                              |
| <b>Auxiliary Server Configuration</b>                |                                                                                                                                                                                                                       |
| IP Address                                           | The IP address that the main server must use to reach the auxiliary server                                                                                                                                            |
| Port                                                 | The TCP port on the auxiliary server that the main server must use to reach the auxiliary server                                                                                                                      |
| Type                                                 | Preferred—specifies that the main server uses this auxiliary server under normal conditions<br>Reserved—specifies that the main server uses this auxiliary server when the Preferred auxiliary server is unavailable  |
| <b>Main Server Configuration For Clients</b>         |                                                                                                                                                                                                                       |
| Server Domain Name                                   | The unique identifier of the 5620 SAM server cluster                                                                                                                                                                  |
| Use Hostname for Communication                       | If selected, specifies that the GUI clients, OSS clients, and auxiliary servers use a hostname, rather than an IP address, to reach the main server                                                                   |
| NAT (network address translation) Used               | If selected, specifies that NAT is used between the main server and the GUI clients, OSS clients, and auxiliary servers                                                                                               |
| Private IP (accessible only by this server)          | The IP address that the NAT router uses to reach the main server<br>The parameter is displayed and configurable when the NAT (network address translation) Used parameter is selected.                                |
| Public Hostname (accessible to clients)              | The hostname that the GUI clients, OSS clients, and auxiliary servers uses to reach the main server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter is selected.     |
| Public IP (accessible to clients)                    | The IP address that the GUI clients, OSS clients, and auxiliary servers uses to reach the main server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter is unselected. |
| EJB JNDI Server port                                 | The TCP port on this station that the GUI clients use for EJB JNDI messaging                                                                                                                                          |
| EJB JMS Server port                                  | The TCP port on this station that the GUI clients use for EJB JMS messaging                                                                                                                                           |
| Enable 5670 RAM                                      | If selected, specifies that a 5670 RAM is integrated with the 5620 SAM system                                                                                                                                         |
| Enable 3GPP OSS Interface                            | If selected, specifies that the 5620 SAM 3GPP OSS interface is to be enabled                                                                                                                                          |
| <b>Main Server Configuration for Clients (cont.)</b> |                                                                                                                                                                                                                       |
| RMI Port                                             | The TCP port on the main server station that the GUI clients are to use for JBOSS name service communication, such as requesting objects or functions from the main server                                            |
| RMI Object Port                                      | The TCP port on the main server station that the GUI clients are to use for JBOSS messaging, for example, during GUI user operations                                                                                  |
| <b>User Documentation</b>                            |                                                                                                                                                                                                                       |

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| Panel and parameters                                           | Description                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Install User Documentation at Central Location Below (default) | If selected, specifies that the user documentation is to be installed in the central location that you enter in the unlabeled field on the panel                                                                                                                                                                                                                                                                                  |
| Install User Documentation to Client File System               | If selected, specifies that the user documentation is to be installed on the local file system of each GUI client                                                                                                                                                                                                                                                                                                                 |
| Unlabeled field                                                | <p>If Install User Documentation at Central Location Below is selected:<br/>An absolute file path or URL that is accessible to the GUI clients; if the location is a URL and NAT is used, the URL must contain a public IP address</p> <p>If Install User Documentation to Client File System is selected:<br/>A path on the client file system that is relative to the nms directory under the client installation directory</p> |
| <b>License Information for 5650 CPAM Server</b>                |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Include 5650 CPAM Server License Information                   | If selected, specifies that a 5650 CPAM is to be integrated with the 5620 SAM system                                                                                                                                                                                                                                                                                                                                              |
| Unlabeled field                                                | <p>The 5650 CPAM license key value, which is in the following format:<br/>XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX</p> <p>You must include the dashes in the license key value that you enter.</p> <p>The parameter is configurable when the Include 5650 CPAM Server License Information parameter is selected.</p>                                                                                                       |
| <b>SNMP Configuration</b>                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| NAT (network address translation) Used                         | If selected, specifies that NAT is used between the main server and the managed NEs                                                                                                                                                                                                                                                                                                                                               |
| SNMP Trap Receiving IPv4 Address                               | <p>The IPv4 address that the devices in the managed network must use to reach the main server</p> <p>This parameter is mandatory.</p>                                                                                                                                                                                                                                                                                             |
| SNMP Trap Receiving IPv6 Address                               | <p>The IPv6 address that the devices in the managed network use to reach the main server</p> <p>This parameter is optional.</p>                                                                                                                                                                                                                                                                                                   |
| SNMP Trap Receiving Port                                       | The TCP port that the devices in the managed network use to reach the main server                                                                                                                                                                                                                                                                                                                                                 |
| Trap Log Id                                                    | The SNMP trap log ID that is associated with the main server                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Navigation from External Systems</b>                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Enable Navigation from External Systems                        | If selected, enables the forwarding of 5620 SAM client GUI activity to a 5620 NM                                                                                                                                                                                                                                                                                                                                                  |
| TCP port for accepting GUI navigation requests                 | <p>The TCP port on this station that is to accept 5620 NM navigation requests</p> <p>The parameter is configurable when the Enable Navigation from External Systems parameter is selected.</p>                                                                                                                                                                                                                                    |
| <b>XML Output Directory</b>                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Unlabeled field                                                | The directory that is to contain the output of OSSl file export operations                                                                                                                                                                                                                                                                                                                                                        |
| <b>Installation Complete</b>                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Start the 5620 SAM Main Server                                 | If selected, specifies that the main server is to start automatically after the upgrade<br>Default: unselected                                                                                                                                                                                                                                                                                                                    |

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## C.2 Redundant database and main server upgrade parameters

Tables C-3 to C-6 list and describe the configurable parameters for a redundant 5620 SAM database and main server upgrade on Solaris. The tables are presented in an order that follows the redundant upgrade workflow in chapter 4. The parameters in each table are grouped by installer panel in the order that the panels are displayed.



**Note —** Unless stated, the default value for a parameter is the value specified during the previous upgrade or installation.

Table C-3 Standby database upgrade parameters

| Panel and parameters                                                    | Description                                                                                                                                                            |
|-------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Software License Agreement</b>                                       |                                                                                                                                                                        |
| I accept the terms of the License Agreement                             | You accept the license terms and conditions. You must select this parameter before you can proceed to the next panel.                                                  |
| I do NOT accept the terms of the License Agreement (default)            | You do not accept the license terms and conditions. You cannot proceed to the next panel when this parameter is selected.                                              |
| <b>Choose Installation Type</b>                                         |                                                                                                                                                                        |
| Install & Configure a Standalone Database (default)                     | Installs a standalone database                                                                                                                                         |
| Restore a Database                                                      | Restores a database using a backup file set                                                                                                                            |
| Upgrade a Database                                                      | Upgrades a database<br>You must choose this option.                                                                                                                    |
| Install & Configure Primary/Standby Database                            | Installs a primary or standby database for a redundant 5620 SAM deployment                                                                                             |
| <b>Specify the Installation Root Directory of the 5620 SAM Database</b> |                                                                                                                                                                        |
| Unlabeled field                                                         | The directory in which the database files are installed                                                                                                                |
| <b>Specify the Base Directory for Oracle Software</b>                   |                                                                                                                                                                        |
| Unlabeled field                                                         | The directory in which the Oracle files are installed                                                                                                                  |
| <b>Get Upgrade Database Info</b>                                        |                                                                                                                                                                        |
| NAT (network address translation) Used                                  | If selected, specifies that NAT is used between this database and the main servers                                                                                     |
| Public IP (accessible to servers)                                       | The IP address that the main servers must use to reach this database                                                                                                   |
| Private IP                                                              | The IP address that the NAT router uses to reach this database<br>The parameter is configurable when the NAT (network address translation) Used parameter is selected. |
| Database Name                                                           | The name of the database                                                                                                                                               |
| Instance Name                                                           | The name that the Oracle software associates with the database processes on this station                                                                               |
| User Name                                                               | The database username                                                                                                                                                  |

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| Panel and parameters                                   | Description                                                                                                                                                                                     |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| User Password                                          | The database password, which can be set only during installation                                                                                                                                |
| <b>Get Upgrade Database Info (cont.)</b>               |                                                                                                                                                                                                 |
| Database Listener Port                                 | The TCP port on this station that the Oracle database listener uses to communicate with the main server                                                                                         |
| Database Proxy Port                                    | The TCP port on this station that the main servers are to use for non-JDBC operations                                                                                                           |
| Database File Server Port                              | The TCP port on this station that the database is to use for file transfers to and from the peer database station                                                                               |
| <b>Primary Database Info</b>                           |                                                                                                                                                                                                 |
| Primary IP Address                                     | The IP address that the main servers use to reach the peer database instance                                                                                                                    |
| Primary Instance Name                                  | The name that the Oracle software associates with the database processes on this station                                                                                                        |
| <b>Determine Memory Requirements</b>                   |                                                                                                                                                                                                 |
| Database co-exists with a 5620 SAM server              | If selected, specifies that the database and a main server are collocated on this station                                                                                                       |
| <b>Main Server IP Validation</b>                       |                                                                                                                                                                                                 |
| Enable SAM Server IP Validation                        | If selected, allows only the main servers specified by the Primary SAM Server IP Address and Peer SAM Server IP Address parameters to connect to this database instance                         |
| Server One IP Address                                  | The IP address of the primary main server that is allowed to connect to this database instance<br>The parameter is configurable when the Enable SAM Server IP Validation parameter is selected. |
| Server Two IP Address                                  | The IP address of the standby main server that is allowed to connect to this database instance<br>The parameter is configurable when the Enable SAM Server IP Validation parameter is selected. |
| <b>Auxiliary Servers</b>                               |                                                                                                                                                                                                 |
| IP Address                                             | The IP address or hostname of the auxiliary server                                                                                                                                              |
| <b>Staging Destination</b>                             |                                                                                                                                                                                                 |
| Unlabeled field                                        | The directory that the database is to use for the continuous statistics tablespace backup                                                                                                       |
| <b>Accounting Statistics Database Retention Period</b> |                                                                                                                                                                                                 |
| Accounting Statistics Data Retention Period            | The length of time, in days, that the database is to retain statistics records                                                                                                                  |
| <b>Purge Statistics</b>                                |                                                                                                                                                                                                 |
| Purge All Accounting Statistics                        | Permanently delete the accounting statistics data from the database to reduce the time required for the database upgrade                                                                        |
| Purge All MIB Statistics                               | Permanently delete the MIB statistics data from the database to reduce the time required for the database upgrade                                                                               |

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Table C-4 Standby main server upgrade parameters

| Panel and parameters       | Description |
|----------------------------|-------------|
| Software License Agreement |             |

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| Panel and parameters                                             | Description                                                                                                                                                                                                                                                         |
|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I accept the terms of the License Agreement                      | You accept the license terms and conditions. You must select this parameter before you can proceed to the next panel.                                                                                                                                               |
| I do NOT accept the terms of the License Agreement (default)     | You do not accept the license terms and conditions. You cannot proceed to the next panel when this parameter is selected.                                                                                                                                           |
| <b>Choose Installation Type</b>                                  |                                                                                                                                                                                                                                                                     |
| Main Server Installation (default)                               | Installs the main server software<br>You must choose this option.                                                                                                                                                                                                   |
| Main Server Configuration                                        | Configures the main server software                                                                                                                                                                                                                                 |
| Auxiliary Server Installation                                    | Installs the auxiliary server software                                                                                                                                                                                                                              |
| Auxiliary Server Configuration                                   | Configures the auxiliary server software                                                                                                                                                                                                                            |
| CPAM Server Installation                                         | Installs the 5650 CPAM server software                                                                                                                                                                                                                              |
| CPAM Server Configuration                                        | Configures the 5650 CPAM server software                                                                                                                                                                                                                            |
| <b>Specify the Base Directory for 5620 SAM Main Server Files</b> |                                                                                                                                                                                                                                                                     |
| Unlabeled field                                                  | The directory in which the main server files are installed                                                                                                                                                                                                          |
| <b>License Information for 5620 SAM Main Server</b>              |                                                                                                                                                                                                                                                                     |
| License Key                                                      | The 5620 SAM license key value, which is in the following format:<br>XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX<br>You must include the dashes in the license key value that you enter.                                                                        |
| <b>Additional Server Configuration</b>                           |                                                                                                                                                                                                                                                                     |
| Redundancy Supported                                             | If selected, specifies that the 5620 SAM system is deployed in a redundant configuration<br>You must select this parameter.                                                                                                                                         |
| Auxiliary Server Supported                                       | If selected, specifies that the 5620 SAM deployment includes one or more auxiliary servers.                                                                                                                                                                         |
| Client Delegate Server Supported                                 | If selected, specifies that the 5620 SAM deployment includes one or more client delegate servers.                                                                                                                                                                   |
| Enable LTE Backup File Synchronization                           | If selected, specifies that the 5620 SAM main servers synchronize the LTE backup files with each other<br>The parameter is configurable when the Redundancy Supported parameter is selected.<br>Default: selected                                                   |
| Enable LTE Stats File Synchronization                            | If selected, specifies that the 5620 SAM main servers synchronize the LTE statistics files with each other<br>The parameter is configurable when the Redundancy Supported parameter is selected.                                                                    |
| Enable SR Backup File Synchronization                            | If selected, specifies that the 5620 SAM main servers synchronize the NE configuration backup files with each other<br>The parameter is configurable when the Redundancy Supported parameter is selected.                                                           |
| <b>Primary Database Configuration</b>                            |                                                                                                                                                                                                                                                                     |
| Primary Database Server IP Address                               | The IP address that this main server must use to reach the primary database station<br>The value must match the Database Server IP Address value specified on the Primary Database Configuration Info panel during the primary database installation.               |
| Primary Database Server Port                                     | The TCP port on the primary database station that this main server uses to reach the database<br>The value must match the Database Listener Port value specified on the Primary Database Configuration Info (cont.) panel during the primary database installation. |

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| Panel and parameters                                   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Primary Database Instance Name                         | The name that the Oracle software associates with the primary database processes<br>The value must match the Instance Name value specified on the Primary Database Configuration Info panel during the primary database upgrade.                                                                                                                                                                                                                            |
| Database User Name                                     | The database username<br>The value must match the User Name value specified on the Primary Database Configuration Info panel during the primary database upgrade.                                                                                                                                                                                                                                                                                           |
| Database User Password                                 | The database password<br>The value must match the User Password value specified on the Primary Database Configuration Info panel during the primary database upgrade.                                                                                                                                                                                                                                                                                       |
| Primary Database Proxy Port                            | The TCP port on the primary database station that this main server is to use for non-JDBC operations<br>The value must match the Database Proxy Port value specified on the Primary Database Configuration Info (cont.) panel during the primary database upgrade.                                                                                                                                                                                          |
| <b>Online Database Backup</b>                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Online Backup Interval (Hours)                         | How often, in hours, the 5620 SAM is to back up the database                                                                                                                                                                                                                                                                                                                                                                                                |
| Online Backup Destination                              | The backup directory on the database station                                                                                                                                                                                                                                                                                                                                                                                                                |
| Number Of Backup Sets                                  | The number of database backup sets that the 5620 SAM is to retain                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Standby Database Configuration</b>                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Database Server IP Address                             | The IP address that this main server must use to reach the standby database station                                                                                                                                                                                                                                                                                                                                                                         |
| Database Instance Name                                 | The name that the Oracle software associates with the standby database processes                                                                                                                                                                                                                                                                                                                                                                            |
| Database Proxy Port                                    | The TCP port on the standby database station that this main server is to use for non-JDBC operations                                                                                                                                                                                                                                                                                                                                                        |
| Enable Database Backup File Synchronization            | If selected, specifies that each 5620 SAM database backup file set is copied to the peer database after the backup completes<br>You must configure this parameter the same on each main server.<br>You must ensure that there is sufficient network bandwidth between the database stations before you enable this parameter. See the <i>5620 SAM Planning Guide</i> for information about the bandwidth required for database backup file synchronization. |
| <b>Main Server Configuration for Auxiliary Servers</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| NAT (network address translation) Used                 | If selected, specifies that NAT is used between this main server and the auxiliary servers                                                                                                                                                                                                                                                                                                                                                                  |
| Private IP (accessible only by this server)            | The IP address that the NAT router uses to reach this main server<br>The parameter is configurable when the NAT (network address translation) Used parameter is selected.                                                                                                                                                                                                                                                                                   |
| Public IP (accessible to auxiliary)                    | The IP address that the auxiliary servers must use to reach this main server                                                                                                                                                                                                                                                                                                                                                                                |
| Server port                                            | The TCP port on this station that the auxiliary servers use to reach this main server                                                                                                                                                                                                                                                                                                                                                                       |
| Enable Stats Collection on Auxiliary Servers           | If selected, specifies that at least one auxiliary server is to be used for statistics collection                                                                                                                                                                                                                                                                                                                                                           |
| Enable Call Trace Collection on Auxiliary Servers      | If selected, specifies that at least two auxiliary servers are to be used for call-trace data collection                                                                                                                                                                                                                                                                                                                                                    |
| <b>Auxiliary Server Configuration</b>                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| IP Address                                             | The IP address that this main server must use to reach the auxiliary server                                                                                                                                                                                                                                                                                                                                                                                 |
| Port                                                   | The TCP port on the auxiliary server that this main server must use to reach the auxiliary server                                                                                                                                                                                                                                                                                                                                                           |

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| Panel and parameters                                     | Description                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type                                                     | Preferred—specifies that the main server uses this auxiliary server under normal conditions<br>Reserved—specifies that the main server uses this auxiliary server when the Preferred auxiliary server is unavailable                                                                                                                 |
| <b>Database Alignment</b>                                |                                                                                                                                                                                                                                                                                                                                      |
| Enable Database Alignment                                | If selected, enables automatic database alignment<br>Default: unselected                                                                                                                                                                                                                                                             |
| <i>IP_address_1:instance_name</i><br>(Primary Preferred) | If selected, specifies that the database that is the designated primary database is the preferred database of the primary main server<br>The parameter is configurable when the Enable Database Alignment parameter is selected.                                                                                                     |
| <i>IP_address_2:instance_name</i><br>(Standby Preferred) | If selected, specifies that the database that is the designated standby database is the preferred database of the primary main server<br>The parameter is configurable when the Enable Database Alignment parameter is selected.                                                                                                     |
| <b>Main Server Configuration For Clients</b>             |                                                                                                                                                                                                                                                                                                                                      |
| Server Domain Name                                       | The unique identifier of the 5620 SAM server cluster                                                                                                                                                                                                                                                                                 |
| Use Hostname for Communication                           | If selected, specifies that the GUI clients, OSS clients, and auxiliary servers use a hostname, rather than an IP address, to reach the main server                                                                                                                                                                                  |
| NAT (network address translation) Used                   | If selected, specifies that NAT is used between this main server and the GUI clients, OSS clients, and auxiliary servers                                                                                                                                                                                                             |
| Private IP (accessible only by this server)              | The IP address that the NAT router uses to reach this main server<br>The parameter is displayed and configurable when the NAT (network address translation) Used parameter is selected.                                                                                                                                              |
| Public Hostname (accessible to clients)                  | The hostname that the GUI clients, OSS clients, and auxiliary servers must use to reach this main server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter is selected.                                                                                                               |
| Public IP (accessible to clients)                        | The IP address that the GUI clients, OSS clients, and auxiliary servers must use to reach this main server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter is unselected.                                                                                                           |
| EJB JNDI Server port                                     | The TCP port on this station that the GUI clients use for EJB JNDI messaging                                                                                                                                                                                                                                                         |
| EJB JMS Server port                                      | The TCP port on this station that the GUI clients use for EJB JMS messaging                                                                                                                                                                                                                                                          |
| Enable 5670 RAM                                          | If selected, specifies that a 5670 RAM is to be integrated with the 5620 SAM system                                                                                                                                                                                                                                                  |
| Enable 3GPP OSS Interface                                | If selected, specifies that the 5620 SAM 3GPP OSS interface is to be enabled                                                                                                                                                                                                                                                         |
| <b>Main Server Configuration for Clients (cont.)</b>     |                                                                                                                                                                                                                                                                                                                                      |
| RMI Port                                                 | The TCP port on the main server station that the GUI clients are to use for JBOSS name service communication, such as requesting objects or functions from the main server<br>In a redundant 5620 SAM deployment, the main servers use this port to share information about the objects and functions that are available to clients. |
| RMI Object Port                                          | The TCP port on the main server station that the GUI clients are to use for JBOSS messaging, for example, during GUI user operations                                                                                                                                                                                                 |
| <b>Main Server Configuration for Peer Server</b>         |                                                                                                                                                                                                                                                                                                                                      |
| NAT (network address translation) Used                   | If selected, specifies that NAT is used between this main server and the peer main server                                                                                                                                                                                                                                            |

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| Panel and parameters                                 | Description                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Private IP (accessible only by this server)          | The IP address that the NAT router uses to reach this main server<br>The parameter is displayed and configurable when the NAT (network address translation) Used parameter is selected.                                                                                                                                                                                                                              |
| Public IP (accessible to peer server)                | The IP address that the peer main server must use to reach this main server                                                                                                                                                                                                                                                                                                                                          |
| High Available JNDI Port                             | The TCP port on this station that the peer main server is to use for EJB JNDI messaging                                                                                                                                                                                                                                                                                                                              |
| TCP Port Cluster Number                              | The TCP port on this station that is used to communicate with the other server cluster members                                                                                                                                                                                                                                                                                                                       |
| <b>User Documentation</b>                            |                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Install User Documentation at Central Location Below | If selected, specifies that the user documentation is to be installed in the central location that you enter in the unlabeled field on the panel                                                                                                                                                                                                                                                                     |
| Install User Documentation to Client File System     | If selected, specifies that the user documentation is to be installed on the local file system of each GUI client                                                                                                                                                                                                                                                                                                    |
| Unlabeled field                                      | If Install User Documentation at Central Location Below is selected:<br>An absolute file path or URL that is accessible to the GUI clients; if the location is a URL and NAT is used, the URL must contain a public IP address<br>If Install User Documentation to Client File System is selected:<br>A path on the client file system that is relative to the nms directory under the client installation directory |
| <b>License Information for 5650 CPAM Server</b>      |                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Include 5650 CPAM Server License Information         | If selected, specifies that a 5650 CPAM is to be integrated with the 5620 SAM system                                                                                                                                                                                                                                                                                                                                 |
| Unlabeled field                                      | The 5650 CPAM license key value, which is in the following format:<br>XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX<br>You must include the dashes in the license key value that you enter.<br>The parameter is configurable when the Include 5650 CPAM Server License Information parameter is selected.                                                                                                          |
| <b>SNMP Configuration</b>                            |                                                                                                                                                                                                                                                                                                                                                                                                                      |
| NAT (network address translation) Used               | If selected, specifies that NAT is used between this main server and the managed NEs                                                                                                                                                                                                                                                                                                                                 |
| SNMP Trap Receiving IPv4 Address                     | The IPv4 address that the devices in the managed network must use to reach this main server<br>This parameter is mandatory.                                                                                                                                                                                                                                                                                          |
| SNMP Trap Receiving IPv6 Address                     | The IPv6 address that the devices in the managed network use to reach this main server<br>This parameter is optional.                                                                                                                                                                                                                                                                                                |
| SNMP Trap Receiving Port                             | The TCP port on this station that the devices in the managed network must use to reach this main server                                                                                                                                                                                                                                                                                                              |
| Trap Log Id                                          | The SNMP trap log ID that is associated with this main server                                                                                                                                                                                                                                                                                                                                                        |
| <b>Peer Main Server Configurations</b>               |                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Peer Server IP Address                               | The IP address that this main server uses to reach the peer main server                                                                                                                                                                                                                                                                                                                                              |
| Peer Server Trap Log Id                              | The SNMP trap log ID that is associated with the peer main server                                                                                                                                                                                                                                                                                                                                                    |
| Peer Server SNMP Trap Receiving IPv4 Address         | The IPv4 address that the devices in the managed network must use to reach the peer main server<br>This parameter is mandatory.                                                                                                                                                                                                                                                                                      |

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| Panel and parameters                           | Description                                                                                                                                                                                                                                                                     |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Peer Server SNMP Trap Receiving IPv6 Address   | The IPv6 address that the devices in the managed network use to reach the peer main server<br>This parameter is optional.                                                                                                                                                       |
| Peer Server SNMP Trap Receiving Port           | The TCP port on the peer main server station that the devices in the managed network must use to reach the peer main server                                                                                                                                                     |
| Peer Server TCP Port Cluster Number            | The TCP port on the peer main server station that the server cluster members use to reach the peer main server                                                                                                                                                                  |
| <b>Peer Main Server Configurations (cont.)</b> |                                                                                                                                                                                                                                                                                 |
| 5620 SAM Peer Server Hostname                  | The hostname that the GUI clients, OSS clients, and auxiliary servers use to reach the peer main server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter in the Main Server Configuration For Clients panel is selected.        |
| 5620 SAM Peer Server IP Address                | The IP address that the GUI clients, OSS clients, and auxiliary servers use to reach the primary main server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter in the Main Server Configuration For Clients panel is unselected. |
| 5620 SAM JNDI High Available Peer Server Port  | The TCP port on the peer main server station that this main server uses for EJB JNDI messaging                                                                                                                                                                                  |
| 5620 SAM JNDI Peer Server Port                 | The TCP port on the primary main server that the GUI clients use for EJB JNDI messaging                                                                                                                                                                                         |
| <b>Navigation from External Systems</b>        |                                                                                                                                                                                                                                                                                 |
| Enable Navigation from External Systems        | If selected, enables the forwarding of 5620 SAM client GUI activity to a 5620 NM                                                                                                                                                                                                |
| TCP port for accepting GUI navigation requests | The TCP port on this station that is to accept 5620 NM navigation requests<br>The parameter is configurable when the Enable Navigation from External Systems parameter is selected.                                                                                             |
| <b>XML Output Directory</b>                    |                                                                                                                                                                                                                                                                                 |
| Unlabeled field                                | The directory that is to contain the output of OSS file export operations                                                                                                                                                                                                       |
| <b>Installation Complete</b>                   |                                                                                                                                                                                                                                                                                 |
| Start the 5620 SAM Main Server                 | If selected, specifies that the main server is to start automatically after the upgrade<br>Default: unselected                                                                                                                                                                  |

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Table C-5 New standby database installation parameters

| Panel and parameters                                         | Description                                                                                                               |
|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <b>Software License Agreement</b>                            |                                                                                                                           |
| I accept the terms of the License Agreement                  | You accept the license terms and conditions. You must select this parameter before you can proceed to the next panel.     |
| I do NOT accept the terms of the License Agreement (default) | You do not accept the license terms and conditions. You cannot proceed to the next panel when this parameter is selected. |
| <b>Choose Installation Type</b>                              |                                                                                                                           |

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| Panel and parameters                                          | Description                                                                                                                                                                                                                                  |
|---------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Install & Configure a Standalone Database (default)           | Installs a standalone database                                                                                                                                                                                                               |
| Restore a Database                                            | Restores a database using a backup file set                                                                                                                                                                                                  |
| Upgrade a Database                                            | Upgrades a database                                                                                                                                                                                                                          |
| Install & Configure Primary/Standby Database                  | Installs a primary or standby database for a redundant 5620 SAM deployment<br>You must choose this option.                                                                                                                                   |
| <b>Install &amp; Configure Primary/Standby Database</b>       |                                                                                                                                                                                                                                              |
| Primary Database Install (default)                            | Installs the primary database in a redundant deployment                                                                                                                                                                                      |
| Convert Standalone Database to Primary                        | Converts a standalone database to the primary database in a redundant deployment                                                                                                                                                             |
| Standby Database Install                                      | Installs the standby database in a redundant deployment<br>You must choose this option.                                                                                                                                                      |
| <b>Install Oracle Software</b>                                |                                                                                                                                                                                                                                              |
| Install Oracle Software (default)                             | Installs the Oracle software                                                                                                                                                                                                                 |
| Do not install Oracle Software                                | Does not install the Oracle software                                                                                                                                                                                                         |
| <b>Specify the Base Directory for 5620 SAM Database Files</b> |                                                                                                                                                                                                                                              |
| Unlabeled field                                               | The directory in which the database files are to be installed<br>Default: /opt/5620sam/samdb/install                                                                                                                                         |
| <b>Specify the Base Directory for Oracle Software</b>         |                                                                                                                                                                                                                                              |
| Unlabeled field                                               | The directory in which the Oracle files are to be installed<br>Default: /opt/5620sam/oracle10r2                                                                                                                                              |
| <b>Standby Database Configuration Info</b>                    |                                                                                                                                                                                                                                              |
| NAT (network address translation) Used                        | If selected, specifies that NAT is used between this database and the main servers                                                                                                                                                           |
| Public IP (accessible to servers)                             | The IP address that the main servers must use to reach this database                                                                                                                                                                         |
| Private IP                                                    | The IP address that the NAT router uses to reach this database<br>The parameter is configurable when the NAT (network address translation) Used parameter is selected.<br>Default: IP address of primary network interface                   |
| Database Server IP Address                                    | The IP address of the network interface on this station that the database is to use to communicate with the main servers; if NAT is used, this is the private IP address of the database<br>Default: IP address of primary network interface |
| Database Proxy Port                                           | The TCP port on this station that the main servers are to use for non-JDBC operations<br>Default: 9002                                                                                                                                       |
| Database File Server Port                                     | The TCP port on this station that the database is to use for file transfers to and from the peer database station<br>Default: 9003                                                                                                           |
| <b>Determine Memory Requirements</b>                          |                                                                                                                                                                                                                                              |
| Database co-exists with a 5620 SAM server                     | If selected, specifies that the database and a main server are collocated on this station<br>Default: unselected                                                                                                                             |

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| Panel and parameters             | Description                                                                                                                                                                                     |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Main Server IP Validation</b> |                                                                                                                                                                                                 |
| Enable SAM Server IP Validation  | If selected, allows only the main servers specified by the Primary SAM Server IP Address and Peer SAM Server IP Address parameters to connect to the database<br>Default: unselected            |
| Server One IP Address            | The IP address of the primary main server that is allowed to connect to this database instance<br>The parameter is configurable when the Enable SAM Server IP Validation parameter is selected. |
| Server Two IP Address            | The IP address of the standby main server that is allowed to connect to this database instance<br>The parameter is configurable when the Enable SAM Server IP Validation parameter is selected. |
| <b>Auxiliary Servers</b>         |                                                                                                                                                                                                 |
| IP Address                       | The IP address or hostname of the auxiliary server<br>Default: —                                                                                                                                |
| <b>Primary Database Info</b>     |                                                                                                                                                                                                 |
| Primary IP Address               | The IP address of the peer database<br>Default: —                                                                                                                                               |
| Primary Instance Name            | The name that the Oracle software associates with the peer database processes<br>Default: samdb2                                                                                                |
| Primary SYS Password             | The password that Oracle requires to start the peer database instance                                                                                                                           |
| Primary Database Listener Port   | The TCP port on the peer database station that the Oracle database listener is to use to communicate with the main server<br>Default: 1523                                                      |
| Primary Database Proxy Port      | The TCP port on the peer database station that the main servers are to use for non-JDBC operations<br>Default: 9002                                                                             |

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Table C-6 Original primary main server upgrade parameters

| Panel and parameters                                         | Description                                                                                                               |
|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <b>Software License Agreement</b>                            |                                                                                                                           |
| I accept the terms of the License Agreement                  | You accept the license terms and conditions. You must select this parameter before you can proceed to the next panel.     |
| I do NOT accept the terms of the License Agreement (default) | You do not accept the license terms and conditions. You cannot proceed to the next panel when this parameter is selected. |
| <b>Choose Installation Type</b>                              |                                                                                                                           |
| Main Server Installation (default)                           | Installs the main server software<br>You must choose this option.                                                         |
| Main Server Configuration                                    | Configures the main server software                                                                                       |
| Auxiliary Server Installation                                | Installs the auxiliary server software                                                                                    |
| Auxiliary Server Configuration                               | Configures the auxiliary server software                                                                                  |

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| Panel and parameters                                             | Description                                                                                                                                                                                                                                                        |
|------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CPAM Server Installation                                         | Installs the 5650 CPAM server software                                                                                                                                                                                                                             |
| CPAM Server Configuration                                        | Configures the 5650 CPAM server software                                                                                                                                                                                                                           |
| <b>Specify the Base Directory for 5620 SAM Main Server Files</b> |                                                                                                                                                                                                                                                                    |
| Unlabeled field                                                  | The directory in which the main server files are installed                                                                                                                                                                                                         |
| <b>License Information for 5620 SAM Main Server</b>              |                                                                                                                                                                                                                                                                    |
| License Key                                                      | The 5620 SAM license key value, which is in the following format:<br>XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX<br>You must include the dashes in the license key value that you enter.                                                                       |
| <b>Additional Server Configuration</b>                           |                                                                                                                                                                                                                                                                    |
| Redundancy Supported                                             | If selected, specifies that the 5620 SAM system is deployed in a redundant configuration<br>You must select this parameter.                                                                                                                                        |
| Auxiliary Server Supported                                       | If selected, specifies that the 5620 SAM deployment includes one or more auxiliary servers.                                                                                                                                                                        |
| Client Delegate Server Supported                                 | If selected, specifies that the 5620 SAM deployment includes one or more client delegate servers.                                                                                                                                                                  |
| Enable LTE Backup File Synchronization                           | If selected, specifies that the 5620 SAM main servers synchronize the LTE backup files with each other<br>The parameter is configurable when the Redundancy Supported parameter is selected.<br>Default: selected                                                  |
| Enable LTE Stats File Synchronization                            | If selected, specifies that the 5620 SAM main servers synchronize the LTE statistics files with each other<br>The parameter is configurable when the Redundancy Supported parameter is selected.                                                                   |
| Enable SR Backup File Synchronization                            | If selected, specifies that the 5620 SAM main servers synchronize the NE configuration backup files with each other<br>The parameter is configurable when the Redundancy Supported parameter is selected.                                                          |
| <b>Primary Database Configuration</b>                            |                                                                                                                                                                                                                                                                    |
| Primary Database Server IP Address                               | The IP address that this main server must use to reach the new primary database station<br>The value must match the Database Server IP Address value specified on the Primary Database Configuration Info panel during the standby database upgrade.               |
| Primary Database Server Port                                     | The TCP port on the new primary database station that this main server uses to reach the database<br>The value must match the Database Listener Port value specified on the Primary Database Configuration Info (cont.) panel during the standby database upgrade. |
| Primary Database Instance Name                                   | The name that the Oracle software associates with the database processes on the new primary database station<br>The value must match the Instance Name value specified on the Primary Database Configuration Info panel during the standby database upgrade.       |
| Database User Name                                               | The database username<br>The value must match the User Name value specified on the Primary Database Configuration Info panel during the standby database upgrade.                                                                                                  |
| Database User Password                                           | The database password<br>The value must match the User Password value specified on the Primary Database Configuration Info panel during the standby database upgrade.                                                                                              |

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| Panel and parameters                                   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Primary Database Proxy Port                            | The TCP port on the new primary database station that the main servers are to use for non-JDBC operations<br>The value must match the Database Proxy Port value specified on the Primary Database Configuration Info (cont.) panel during the standby database upgrade.                                                                                                                                                                                     |
| <b>Online Database Backup</b>                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Online Backup Interval (Hours)                         | How often, in hours, the 5620 SAM is to back up the database                                                                                                                                                                                                                                                                                                                                                                                                |
| Online Backup Destination                              | The backup directory on the database station                                                                                                                                                                                                                                                                                                                                                                                                                |
| Number Of Backup Sets                                  | The number of database backup sets that the 5620 SAM is to retain                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Standby Database Configuration</b>                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Database Server IP Address                             | The IP address that this main server must use to reach the new standby database station                                                                                                                                                                                                                                                                                                                                                                     |
| Database Instance Name                                 | The name that the Oracle software associates with the database processes on the new standby database station                                                                                                                                                                                                                                                                                                                                                |
| Database Proxy Port                                    | The TCP port on the new standby database station that the main servers are to use for non-JDBC operations                                                                                                                                                                                                                                                                                                                                                   |
| Enable Database Backup File Synchronization            | If selected, specifies that each 5620 SAM database backup file set is copied to the peer database after the backup completes<br>You must configure this parameter the same on each main server.<br>You must ensure that there is sufficient network bandwidth between the database stations before you enable this parameter. See the <i>5620 SAM Planning Guide</i> for information about the bandwidth required for database backup file synchronization. |
| <b>Main Server Configuration for Auxiliary Servers</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| NAT (network address translation) Used                 | If selected, specifies that NAT is used between this main server and the auxiliary servers                                                                                                                                                                                                                                                                                                                                                                  |
| Private IP (accessible only by this server)            | The IP address that the NAT router uses to reach this main server<br>The parameter is configurable when the NAT (network address translation) Used parameter is selected.                                                                                                                                                                                                                                                                                   |
| Public IP (accessible to auxiliary)                    | The IP address that the auxiliary servers must use to reach this main server                                                                                                                                                                                                                                                                                                                                                                                |
| Server port                                            | The TCP port on this station that the auxiliary servers are to use to reach this main server                                                                                                                                                                                                                                                                                                                                                                |
| Enable Stats Collection on Auxiliary Servers           | If selected, specifies that at least one auxiliary server is to be used for statistics collection                                                                                                                                                                                                                                                                                                                                                           |
| Enable Call Trace Collection on Auxiliary Servers      | If selected, specifies that at least two auxiliary servers are to be used for call-trace data collection                                                                                                                                                                                                                                                                                                                                                    |
| <b>Auxiliary Server Configuration</b>                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| IP Address                                             | The IP address that this main server must use to reach the auxiliary server                                                                                                                                                                                                                                                                                                                                                                                 |
| Port                                                   | The TCP port on the auxiliary server that this main server must use to reach the auxiliary server                                                                                                                                                                                                                                                                                                                                                           |
| Type                                                   | Preferred—specifies that the main server uses this auxiliary server under normal conditions<br>Reserved—specifies that the main server uses this auxiliary server when the Preferred auxiliary server is unavailable                                                                                                                                                                                                                                        |
| <b>Database Alignment</b>                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Enable Database Alignment                              | If selected, enables automatic database alignment                                                                                                                                                                                                                                                                                                                                                                                                           |

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| Panel and parameters                                     | Description                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>IP_address_1:instance_name</i><br>(Primary Preferred) | If selected, specifies that the database that is the designated primary database is the preferred database of the primary main server<br>The parameter is configurable when the Enable Database Alignment parameter is selected.                                                                                                     |
| <i>IP_address_2:instance_name</i><br>(Standby Preferred) | If selected, specifies that the database that is the designated standby database is the preferred database of the primary main server<br>The parameter is configurable when the Enable Database Alignment parameter is selected.                                                                                                     |
| <b>Main Server Configuration For Clients</b>             |                                                                                                                                                                                                                                                                                                                                      |
| Server Domain Name                                       | The unique identifier of the 5620 SAM server cluster                                                                                                                                                                                                                                                                                 |
| Use Hostname for Communication                           | If selected, specifies that the GUI clients, OSS clients, and auxiliary servers use a hostname, rather than an IP address, to reach the main server                                                                                                                                                                                  |
| NAT (network address translation) Used                   | If selected, specifies that NAT is used between this main server and the GUI clients, OSS clients, and auxiliary servers                                                                                                                                                                                                             |
| Private IP (accessible only by this server)              | The IP address that the NAT router uses to reach this main server<br>The parameter is displayed and configurable when the NAT (network address translation) Used parameter is selected.                                                                                                                                              |
| Public Hostname (accessible to clients)                  | The hostname that the GUI clients, OSS clients, and auxiliary servers must use to reach this main server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter is selected.                                                                                                               |
| Public IP (accessible to clients)                        | The IP address that the GUI clients, OSS clients, and auxiliary servers use to reach this main server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter is unselected.                                                                                                                |
| EJB JNDI Server port                                     | The TCP port on this station that the GUI clients use for EJB JNDI messaging                                                                                                                                                                                                                                                         |
| EJB JMS Server port                                      | The TCP port on this station that the GUI clients use for EJB JMS messaging                                                                                                                                                                                                                                                          |
| Enable 5670 RAM                                          | If selected, specifies that a 5670 RAM is to be integrated with the 5620 SAM system                                                                                                                                                                                                                                                  |
| Enable 3GPP OSS Interface                                | If selected, specifies that the 5620 SAM 3GPP OSS interface is to be enabled                                                                                                                                                                                                                                                         |
| <b>Main Server Configuration for Clients (cont.)</b>     |                                                                                                                                                                                                                                                                                                                                      |
| RMI Port                                                 | The TCP port on the main server station that the GUI clients are to use for JBOSS name service communication, such as requesting objects or functions from the main server<br>In a redundant 5620 SAM deployment, the main servers use this port to share information about the objects and functions that are available to clients. |
| RMI Object Port                                          | The TCP port on the main server station that the GUI clients are to use for JBOSS messaging, for example, during GUI user operations                                                                                                                                                                                                 |
| <b>Main Server Configuration for Peer Server</b>         |                                                                                                                                                                                                                                                                                                                                      |
| NAT (network address translation) Used                   | If selected, specifies that NAT is used between this main server and the peer main server                                                                                                                                                                                                                                            |
| Private IP (accessible only by this server)              | The IP address that the NAT router uses to reach this main server<br>The parameter is displayed and configurable when the NAT (network address translation) Used parameter is selected.                                                                                                                                              |
| Public IP (accessible to peer server)                    | The IP address that the peer main server must use to reach this main server                                                                                                                                                                                                                                                          |
| High Available JNDI Port                                 | The TCP port on this station that the peer main server is to use for EJB JNDI messaging                                                                                                                                                                                                                                              |

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| Panel and parameters                                 | Description                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TCP Port Cluster Number                              | The TCP port on this station that is used to communicate with the other server cluster members                                                                                                                                                                                                                                                                                                                                    |
| <b>User Documentation</b>                            |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Install User Documentation at Central Location Below | If selected, specifies that the user documentation is to be installed in the central location that you enter in the unlabeled field on the panel                                                                                                                                                                                                                                                                                  |
| Install User Documentation to Client File System     | If selected, specifies that the user documentation is to be installed on the local file system of each GUI client                                                                                                                                                                                                                                                                                                                 |
| Unlabeled field                                      | <p>If Install User Documentation at Central Location Below is selected:<br/>An absolute file path or URL that is accessible to the GUI clients; if the location is a URL and NAT is used, the URL must contain a public IP address</p> <p>If Install User Documentation to Client File System is selected:<br/>A path on the client file system that is relative to the nms directory under the client installation directory</p> |
| <b>License Information for 5650 CPAM Server</b>      |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Include 5650 CPAM Server License Information         | If selected, specifies that a 5650 CPAM is to be integrated with the 5620 SAM system                                                                                                                                                                                                                                                                                                                                              |
| Unlabeled field                                      | <p>The 5650 CPAM license key value, which is in the following format:<br/>XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX</p> <p>You must include the dashes in the license key value that you enter.</p> <p>The parameter is configurable when the Include 5650 CPAM Server License Information parameter is selected.</p>                                                                                                       |
| <b>SNMP Configuration</b>                            |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| NAT (network address translation) Used               | If selected, specifies that NAT is used between this main server and the managed NEs                                                                                                                                                                                                                                                                                                                                              |
| SNMP Trap Receiving IPv4 Address                     | <p>The IPv4 address that the devices in the managed network must use to reach this main server</p> <p>This parameter is mandatory.</p>                                                                                                                                                                                                                                                                                            |
| SNMP Trap Receiving IPv6 Address                     | <p>The IPv6 address that the devices in the managed network use to reach this main server</p> <p>This parameter is optional.</p>                                                                                                                                                                                                                                                                                                  |
| SNMP Trap Receiving Port                             | The TCP port on this station that the devices in the managed network must use to reach this main server                                                                                                                                                                                                                                                                                                                           |
| Trap Log Id                                          | The SNMP trap log ID that is associated with this main server                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Peer Main Server Configurations</b>               |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Peer Server IP Address                               | The IP address that this main server must use to reach the peer main server                                                                                                                                                                                                                                                                                                                                                       |
| Peer Server Trap Log Id                              | The SNMP trap log ID that is associated with the peer main server                                                                                                                                                                                                                                                                                                                                                                 |
| Peer Server SNMP Trap Receiving IPv4 Address         | <p>The IPv4 address that the devices in the managed network must use to reach the peer main server</p> <p>This parameter is mandatory.</p>                                                                                                                                                                                                                                                                                        |
| Peer Server SNMP Trap Receiving IPv6 Address         | <p>The IPv6 address that the devices in the managed network use to reach the peer main server</p> <p>This parameter is optional.</p>                                                                                                                                                                                                                                                                                              |
| Peer Server SNMP Trap Receiving Port                 | The TCP port on the peer main server station that the devices in the managed network use to reach the peer main server                                                                                                                                                                                                                                                                                                            |
| Peer Server TCP Port Cluster Number                  | The TCP port on the peer main server station that the server cluster members use to reach the peer main server                                                                                                                                                                                                                                                                                                                    |

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| Panel and parameters                           | Description                                                                                                                                                                                                                                                                       |
|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Peer Main Server Configurations (cont.)</b> |                                                                                                                                                                                                                                                                                   |
| 5620 SAM Peer Server Hostname                  | The hostname that the GUI clients, OSS clients, and auxiliary servers must use to reach the peer main server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter in the Main Server Configuration For Clients panel is selected.     |
| 5620 SAM Peer Server IP Address                | The IP address that the GUI clients, OSS clients, and auxiliary servers must use to reach the peer main server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter in the Main Server Configuration For Clients panel is unselected. |
| 5620 SAM JNDI High Available Peer Server Port  | The TCP port on the peer main server station that this main server uses for EJB JNDI messaging                                                                                                                                                                                    |
| 5620 SAM JNDI Peer Server Port                 | The TCP port on the peer main server station that the GUI clients use for EJB JNDI messaging                                                                                                                                                                                      |
| <b>Navigation from External Systems</b>        |                                                                                                                                                                                                                                                                                   |
| Enable Navigation from External Systems        | If selected, enables the forwarding of 5620 SAM client GUI activity to a 5620 NM                                                                                                                                                                                                  |
| TCP port for accepting GUI navigation requests | The TCP port on this station that is to accept 5620 NM navigation requests<br>The parameter is configurable when the Enable Navigation from External Systems parameter is selected.                                                                                               |
| <b>XML Output Directory</b>                    |                                                                                                                                                                                                                                                                                   |
| Unlabeled field                                | The directory that is to contain the output of OSS file export operations                                                                                                                                                                                                         |
| <b>Installation Complete</b>                   |                                                                                                                                                                                                                                                                                   |
| Start the 5620 SAM Main Server                 | If selected, specifies that the main server is to start automatically after the upgrade<br>Default: unselected                                                                                                                                                                    |

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### C.3 Auxiliary server upgrade parameters

Table C-7 lists and describes the parameters that are configurable during a 5620 SAM auxiliary server upgrade. The parameters are grouped by installer panel in the order that the panels are displayed.



**Note** — Unless stated, the default value for a parameter is the value specified during the previous upgrade or installation.

Table C-7 Auxiliary server upgrade parameters

| Panel and parameters                        | Description                                                                                                           |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <b>Software License Agreement</b>           |                                                                                                                       |
| I accept the terms of the License Agreement | You accept the license terms and conditions. You must select this parameter before you can proceed to the next panel. |

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| Panel and parameters                                                  | Description                                                                                                                                                                                                         |
|-----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I do NOT accept the terms of the License Agreement (default)          | You do not accept the license terms and conditions. You cannot proceed to the next panel when this parameter is selected.                                                                                           |
| <b>Choose Installation Type</b>                                       |                                                                                                                                                                                                                     |
| Main Server Installation (default)                                    | Installs the main server software                                                                                                                                                                                   |
| Main Server Configuration                                             | Configures the main server software                                                                                                                                                                                 |
| Auxiliary Server Installation                                         | Installs the auxiliary server software<br>You must choose this option.                                                                                                                                              |
| Auxiliary Server Configuration                                        | Configures the auxiliary server software                                                                                                                                                                            |
| CPAM Server Installation                                              | Installs the 5650 CPAM server software                                                                                                                                                                              |
| CPAM Server Configuration                                             | Configures the 5650 CPAM server software                                                                                                                                                                            |
| <b>Specify the Base Directory for 5620 SAM Auxiliary Server Files</b> |                                                                                                                                                                                                                     |
| Unlabeled field                                                       | The directory in which the auxiliary server files are installed                                                                                                                                                     |
| <b>Auxiliary Server Address Configuration</b>                         |                                                                                                                                                                                                                     |
| Server Domain Name                                                    | The unique identifier of the 5620 SAM server cluster                                                                                                                                                                |
| NAT (network address translation) Used                                | If selected, specifies that NAT is used between this auxiliary server and the main servers                                                                                                                          |
| Private IP (accessible only by this server)                           | The IP address that the NAT router uses to reach this auxiliary server<br>The parameter is displayed and configurable when the NAT (network address translation) Used parameter is selected.                        |
| Public IP (accessible to servers)                                     | The IP address that each main server must use to reach this auxiliary server                                                                                                                                        |
| Server Port                                                           | The TCP port on this station that this auxiliary server uses to communicate with the main servers                                                                                                                   |
| Redundancy Supported On the 5620 SAM Main Server                      | If selected, specifies that the 5620 SAM system is deployed in a redundant configuration                                                                                                                            |
| Enable Stats Service                                                  | If selected, specifies that the 5620 SAM auxiliary server is used for statistics data collection                                                                                                                    |
| Enable Call Trace Service                                             | If selected, specifies that the 5620 SAM auxiliary server is used for call trace data collection                                                                                                                    |
| <b>Auxiliary Server Call Trace Configuration</b>                      |                                                                                                                                                                                                                     |
| IPv6 Address Used                                                     | If selected, specifies that an IPv6 address on the auxiliary server in addition to an IPv4 address is used for call trace data collection                                                                           |
| Call Trace Receiving IPv4 Address                                     | The IPv4 address that the NAT router uses to reach this auxiliary server; if NAT is used, this is a public address                                                                                                  |
| Call Trace Receiving IPv6 Address                                     | The IPv6 address that the NAT router uses to reach this auxiliary server; if NAT is used, this is a public address<br>The parameter is displayed and configurable when the IPv6 Address Used parameter is selected. |
| Call Trace Receiving Directory                                        | The local directory in which call trace data is stored                                                                                                                                                              |
| Debug Trace Receiving Directory                                       | The local directory in which debug trace data is stored                                                                                                                                                             |
| <b>Synchronization of Call Trace Data</b>                             |                                                                                                                                                                                                                     |

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| Panel and parameters                      | Description                                                                                                                                                                                                                                                                                                                    |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enable Synchronization of Call Trace Data | If selected, specifies that an IPv6 address on the auxiliary server in addition to an IPv4 address is used for call trace data collection                                                                                                                                                                                      |
| Local IP Address                          | The IPv4 address that the other auxiliary server in the call-trace auxiliary server pair uses to reach this auxiliary server; if NAT is used, this is a public address                                                                                                                                                         |
| Remote IP Address                         | The IPv4 address that this auxiliary server uses to reach the other auxiliary server in the call-trace auxiliary server pair; if NAT is used, this is a public address                                                                                                                                                         |
| <b>Main Server Configuration</b>          |                                                                                                                                                                                                                                                                                                                                |
| Server IP Address                         | The IP address that this auxiliary server must use to reach the main server in a standalone deployment<br>The parameter is displayed and configurable when the Redundancy Supported On the 5620 SAM Main Server parameter in the Auxiliary Server Address Configuration panel is unselected.                                   |
| Server Port                               | The TCP port on the main server station that the auxiliary server uses to reach the main server in a standalone deployment<br>The parameter is displayed and configurable when the Redundancy Supported On the 5620 SAM Main Server parameter in the Auxiliary Server Address Configuration panel is unselected.               |
| Server One IP Address                     | The IP address that this auxiliary server must use to reach the primary main server in a redundant deployment<br>The parameter is displayed and configurable when the Redundancy Supported On the 5620 SAM Main Server parameter in the Auxiliary Server Address Configuration panel is selected.                              |
| Server One Port                           | The TCP port on the primary main server station that the auxiliary server uses to reach the primary main server in a redundant deployment<br>The parameter is displayed and configurable when the Redundancy Supported On the 5620 SAM Main Server parameter in the Auxiliary Server Address Configuration panel is selected.  |
| Server Two IP Address                     | The IP address that this auxiliary server must use to reach the standby main server in a redundant deployment<br>The parameter is displayed and configurable when the Redundancy Supported On the 5620 SAM Main Server parameter in the Auxiliary Server Address Configuration panel is selected.                              |
| Server Two Port                           | The TCP port on the standby main server station that this auxiliary server uses to reach the standby main server in a redundant deployment<br>The parameter is displayed and configurable when the Redundancy Supported On the 5620 SAM Main Server parameter in the Auxiliary Server Address Configuration panel is selected. |
| <b>XML Output Directory</b>               |                                                                                                                                                                                                                                                                                                                                |
| Unlabeled field                           | The directory that is to contain the output of OSSI file export operations                                                                                                                                                                                                                                                     |
| <b>Installation Complete</b>              |                                                                                                                                                                                                                                                                                                                                |
| Start the 5620 SAM Auxiliary Server       | If selected, specifies that the auxiliary server is to start automatically after the upgrade<br>Default: unselected                                                                                                                                                                                                            |

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## *D. 5620 SAM conversion to redundancy parameters*

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### *D.1 5620 SAM conversion to redundancy parameters D-2*

## D.1 5620 SAM conversion to redundancy parameters

Tables D-1 to D-4 list and describe the configurable parameters for the conversion of a standalone 5620 SAM database and main server on Solaris to redundancy. The tables are presented in an order that follows the conversion workflow in chapter 5. The parameters in each table are grouped by installer panel in the order that the panels are displayed.



**Note** — Unless stated, the default value for a parameter is the value specified during the previous upgrade or installation.

Table D-1 Standalone database conversion parameters

| Panel and parameters                                          | Description                                                                                                               |
|---------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <b>Software License Agreement</b>                             |                                                                                                                           |
| I accept the terms of the License Agreement                   | You accept the license terms and conditions. You must select this parameter before you can proceed to the next panel.     |
| I do NOT accept the terms of the License Agreement (default)  | You do not accept the license terms and conditions. You cannot proceed to the next panel when this parameter is selected. |
| <b>Choose Installation Type</b>                               |                                                                                                                           |
| Install & Configure a Standalone Database (default)           | Installs a standalone database                                                                                            |
| Restore a Database                                            | Restores a database using a backup file set                                                                               |
| Upgrade a Database                                            | Upgrades a database                                                                                                       |
| Install & Configure Primary/Standby Database                  | Installs a primary or standby database for a redundant 5620 SAM deployment<br>You must choose this option.                |
| <b>Install &amp; Configure Primary/Standby Database</b>       |                                                                                                                           |
| Primary Database Install (default)                            | Installs the primary database in a redundant deployment                                                                   |
| Convert Standalone Database to Primary                        | Converts a standalone database to the primary database in a redundant deployment<br>You must choose this option.          |
| Standby Database Install                                      | Installs the standby database in a redundant deployment                                                                   |
| <b>Install Oracle Software</b>                                |                                                                                                                           |
| Install Oracle Software (default)                             | Installs the Oracle software                                                                                              |
| Do not install Oracle Software                                | Does not install the Oracle software<br>You must choose this option.                                                      |
| <b>Specify the Base Directory for 5620 SAM Database Files</b> |                                                                                                                           |
| Unlabeled field                                               | The directory in which the database files are installed                                                                   |
| <b>Specify the Base Directory for Oracle Software</b>         |                                                                                                                           |
| Unlabeled field                                               | The directory in which the Oracle files are installed                                                                     |
| <b>Standalone Database Info</b>                               |                                                                                                                           |

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| Panel and parameters                      | Description                                                                                                                                                                                                                                                                                                     |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NAT (network address translation) Used    | If selected, specifies that NAT is used between this database and the main servers                                                                                                                                                                                                                              |
| Public IP (accessible to servers)         | The IP address that the main servers must use to reach this database                                                                                                                                                                                                                                            |
| Private IP                                | The IP address that the NAT router uses to reach this database<br>The parameter is configurable when the NAT (network address translation) Used parameter is selected.                                                                                                                                          |
| Database Server IP Address                | The IP address of the network interface on this station that the database is to use for communication with the main servers; if NAT is used, this is the private IP address of the database<br>Default: IP address of primary network interface                                                                 |
| Database Name                             | The name of the database                                                                                                                                                                                                                                                                                        |
| Instance Name                             | The name that the Oracle software associates with the database processes on this station                                                                                                                                                                                                                        |
| User Name                                 | The database username                                                                                                                                                                                                                                                                                           |
| User Password                             | The database password, which can be set only during installation                                                                                                                                                                                                                                                |
| <b>Standalone Database Info (cont.)</b>   |                                                                                                                                                                                                                                                                                                                 |
| Database Listener Port                    | The TCP port on this station that the Oracle database listener is to use to communicate with each main server                                                                                                                                                                                                   |
| Database Proxy Port                       | The TCP port on this station that the main servers are to use for non-JDBC operations                                                                                                                                                                                                                           |
| Database File Server Port                 | The TCP port on this station that the database is to use for file transfers to and from the peer database station                                                                                                                                                                                               |
| <b>Determine Memory Requirements</b>      |                                                                                                                                                                                                                                                                                                                 |
| Database co-exists with a 5620 SAM server | If selected, specifies that the database and a main server are to be collocated on this station                                                                                                                                                                                                                 |
| <b>Main Server IP Validation</b>          |                                                                                                                                                                                                                                                                                                                 |
| Enable SAM Server IP Validation           | If selected, allows only the main servers specified by the Primary SAM Server IP Address and Peer SAM Server IP Address parameters to connect to the database                                                                                                                                                   |
| Server One IP Address                     | The IP address that this database instance must use to reach the primary main server<br>The parameter is configurable when the Enable SAM Server IP Validation parameter is selected.                                                                                                                           |
| Server Two IP Address                     | The IP address that this database instance must use to reach the standby main server<br>The parameter is configurable when the Enable SAM Server IP Validation parameter is selected.                                                                                                                           |
| <b>Standby Database Info</b>              |                                                                                                                                                                                                                                                                                                                 |
| Standby IP Address                        | The IP address that each main server and this database instance must use to reach the peer database instance<br>Default: —                                                                                                                                                                                      |
| Standby Instance Name                     | The name that the Oracle software associates with the database processes on the peer database station<br>The name must: <ul style="list-style-type: none"> <li>contain 8 or fewer characters</li> <li>consist of ASCII characters only</li> <li>have a letter as the first character</li> </ul> Default: samdb2 |

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| Panel and parameters            | Description                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standby Oracle Home             | The directory on the peer database station in which the Oracle files are to be installed<br>Default: /opt/5620sam/oracle10r2                                                                                                                                                                                                                                                             |
| Standby Archive Log Destination | The directory on the peer database station in which the database is to store the archive logs<br>Database transactions are stored in the archive log directory until a database backup is performed. Alcatel-Lucent recommends that you regularly back up the database to avoid filling the partition that contains the archive log directory.<br>Default: /opt/5620sam/samdb/archivelog |

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Table D-2 Standalone main server conversion parameters

| Panel and parameters                                             | Description                                                                                                                                                                                  |
|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Software License Agreement</b>                                |                                                                                                                                                                                              |
| I accept the terms of the License Agreement                      | You accept the license terms and conditions. You must select this parameter before you can proceed to the next panel.                                                                        |
| I do NOT accept the terms of the License Agreement (default)     | You do not accept the license terms and conditions. You cannot proceed to the next panel when this parameter is selected.                                                                    |
| <b>Choose Installation Type</b>                                  |                                                                                                                                                                                              |
| Main Server Installation (default)                               | Installs the main server software                                                                                                                                                            |
| Main Server Configuration                                        | Configures the main server software<br>You must choose this option.                                                                                                                          |
| Auxiliary Server Installation                                    | Installs the auxiliary server software                                                                                                                                                       |
| Auxiliary Server Configuration                                   | Configures the auxiliary server software                                                                                                                                                     |
| CPAM Server Installation                                         | Installs the 5650 CPAM server software                                                                                                                                                       |
| CPAM Server Configuration                                        | Configures the 5650 CPAM server software                                                                                                                                                     |
| <b>Specify the Base Directory for 5620 SAM Main Server Files</b> |                                                                                                                                                                                              |
| Unlabeled field                                                  | The directory in which the main server files are installed                                                                                                                                   |
| <b>License Information for 5620 SAM Main Server</b>              |                                                                                                                                                                                              |
| License Key                                                      | The 5620 SAM license key value, which is in the following format:<br>XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX<br>You must include the dashes in the license key value that you enter. |
| <b>Additional Server Configuration</b>                           |                                                                                                                                                                                              |
| Redundancy Supported                                             | If selected, specifies that the 5620 SAM system is deployed in a redundant configuration<br>You must select this parameter.<br>Default: unselected                                           |
| Auxiliary Server Supported                                       | If selected, specifies that the 5620 SAM deployment includes one or more auxiliary servers                                                                                                   |
| Client Delegate Server Supported                                 | If selected, specifies that the 5620 SAM deployment includes one or more client delegate servers                                                                                             |

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| Panel and parameters                   | Description                                                                                                                                                                                                                                                               |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enable LTE Backup File Synchronization | If selected, specifies that the 5620 SAM main servers synchronize the LTE backup files with each other<br>The parameter is configurable when the Redundancy Supported parameter is selected.<br>Default: selected                                                         |
| Enable LTE Stats File Synchronization  | If selected, specifies that the 5620 SAM main servers synchronize the LTE statistics files with each other<br>The parameter is configurable when the Redundancy Supported parameter is selected.<br>Default: selected                                                     |
| Enable SR Backup File Synchronization  | If selected, specifies that the 5620 SAM main servers synchronize the NE configuration backup files with each other<br>The parameter is configurable when the Redundancy Supported parameter is selected.<br>Default: unselected                                          |
| <b>Primary Database Configuration</b>  |                                                                                                                                                                                                                                                                           |
| Primary Database Server IP Address     | The IP address that this main server must use to reach the primary database station<br>The value must match the Database Server IP Address value specified on the Standalone Database Info panel during the standalone database conversion.                               |
| Primary Database Server Port           | The TCP port on the primary database station that this main server must use to reach the database<br>The value must match the Database Listener Port value specified on the Standalone Database Info (cont.) panel during the standalone database conversion.             |
| Primary Database Instance Name         | The name that the Oracle software associates with the database processes on the primary database station<br>The value must match the Instance Name value specified on the Primary Database Configuration Info panel during the original standalone database installation. |
| Database User Name                     | The database username                                                                                                                                                                                                                                                     |
| Database User Password                 | The database password                                                                                                                                                                                                                                                     |
| Primary Database Proxy Port            | The TCP port on the primary database station that the main servers are to use for non-JDBC operations<br>The value must match the Database Proxy Port value specified on the Standalone Database Info (cont.) panel during the standalone database conversion.            |
| <b>Online Database Backup</b>          |                                                                                                                                                                                                                                                                           |
| Online Backup Interval (Hours)         | How often, in hours, the 5620 SAM is to back up the database                                                                                                                                                                                                              |
| Online Backup Destination              | The backup directory on the database station                                                                                                                                                                                                                              |
| Number Of Backup Sets                  | The number of database backup sets that the 5620 SAM is to retain                                                                                                                                                                                                         |
| <b>Standby Database Configuration</b>  |                                                                                                                                                                                                                                                                           |
| Database Server IP Address             | The IP address that this main server must use to reach the standby database station<br>Default: —                                                                                                                                                                         |
| Database Instance Name                 | The name that the Oracle software associates with the database processes on the standby database station<br>Default: samdb2                                                                                                                                               |
| Database Proxy Port                    | The TCP port on the standby database station that the main servers are to use for non-JDBC operations<br>Default: 9002                                                                                                                                                    |

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| Panel and parameters                                            | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enable Database Backup File Synchronization                     | If selected, specifies that each 5620 SAM database backup file set is copied to the peer database after the backup completes<br>You must configure this parameter the same on each main server.<br>You must ensure that there is sufficient network bandwidth between the database stations before you enable this parameter. See the <i>5620 SAM Planning Guide</i> for information about the bandwidth required for database backup file synchronization. |
| <b>Main Server Configuration for Auxiliary Servers</b>          |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| NAT (network address translation) Used                          | If selected, specifies that NAT is used between this main server and the auxiliary servers                                                                                                                                                                                                                                                                                                                                                                  |
| Private IP (accessible only by this server)                     | The IP address that the NAT router uses to reach this main server<br>The parameter is configurable when the NAT (network address translation) Used parameter is selected.                                                                                                                                                                                                                                                                                   |
| Public IP (accessible to auxiliary)                             | The IP address that the auxiliary servers must use to reach this main server                                                                                                                                                                                                                                                                                                                                                                                |
| Server port                                                     | The TCP port on this station that the auxiliary servers must use to reach this main server                                                                                                                                                                                                                                                                                                                                                                  |
| Enable Stats Collection on Auxiliary Servers                    | If selected, specifies that at least one auxiliary server is to be used for statistics collection                                                                                                                                                                                                                                                                                                                                                           |
| Enable Call Trace Collection on Auxiliary Servers               | If selected, specifies that at least two auxiliary servers are to be used for call-trace data collection                                                                                                                                                                                                                                                                                                                                                    |
| <b>Auxiliary Server Configuration</b>                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| IP Address                                                      | The IP address that this main server must use to reach the auxiliary server                                                                                                                                                                                                                                                                                                                                                                                 |
| Port                                                            | The TCP port on the auxiliary server that this main server must use to reach the auxiliary server                                                                                                                                                                                                                                                                                                                                                           |
| Type                                                            | Preferred—specifies that the main server uses this auxiliary server under normal conditions<br>Reserved—specifies that the main server uses this auxiliary server when the Preferred auxiliary server is unavailable                                                                                                                                                                                                                                        |
| <b>Database Alignment</b>                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Enable Database Alignment                                       | If selected, enables automatic database alignment<br>Default: unselected                                                                                                                                                                                                                                                                                                                                                                                    |
| <i>IP_address_1:instance_name</i> (Primary Preferred) (default) | If selected, specifies that the database that is the designated primary database is the preferred database of the primary main server<br>The parameter is configurable when the Enable Database Alignment parameter is selected.                                                                                                                                                                                                                            |
| <i>IP_address_2:instance_name</i> (Standby Preferred)           | If selected, specifies that the database that is the designated standby database is the preferred database of the primary main server<br>The parameter is configurable when the Enable Database Alignment parameter is selected.                                                                                                                                                                                                                            |
| <b>Main Server Configuration For Clients</b>                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Server Domain Name                                              | The unique identifier of the 5620 SAM server cluster                                                                                                                                                                                                                                                                                                                                                                                                        |
| Use Hostname for Communication                                  | If selected, specifies that the GUI clients, OSS clients, and auxiliary servers use a hostname, rather than an IP address, to reach this main server                                                                                                                                                                                                                                                                                                        |
| NAT (network address translation) Used                          | If selected, specifies that NAT is used between this main server and the GUI clients, OSS clients, and auxiliary servers                                                                                                                                                                                                                                                                                                                                    |
| Private IP (accessible only by this server)                     | The IP address that the NAT router uses to reach this main server<br>The parameter is displayed and configurable when the NAT (network address translation) Used parameter is selected.                                                                                                                                                                                                                                                                     |

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| Panel and parameters                                 | Description                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Public Hostname (accessible to clients)              | The hostname that the GUI clients, OSS clients, and auxiliary servers must use to reach this main server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter is selected.                                                                                                                                                                                               |
| Public IP (accessible to clients)                    | The IP address that the GUI clients, OSS clients, and auxiliary servers must use to reach this main server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter is unselected.                                                                                                                                                                                           |
| EJB JNDI Server port                                 | The TCP port on this station that the GUI clients use for EJB JNDI messaging                                                                                                                                                                                                                                                                                                                                         |
| EJB JMS Server port                                  | The TCP port on this station that the GUI clients use for EJB JMS messaging                                                                                                                                                                                                                                                                                                                                          |
| Enable 5670 RAM                                      | If selected, specifies that a 5670 RAM is to be integrated with the 5620 SAM system                                                                                                                                                                                                                                                                                                                                  |
| Enable 3GPP OSS Interface                            | If selected, specifies that the 5620 SAM 3GPP OSS interface is to be enabled                                                                                                                                                                                                                                                                                                                                         |
| <b>Main Server Configuration for Clients (cont.)</b> |                                                                                                                                                                                                                                                                                                                                                                                                                      |
| RMI Port                                             | The TCP port on the main server station that the GUI clients are to use for JBOSS name service communication, such as requesting objects or functions from the main server<br>In a redundant 5620 SAM deployment, the main servers use this port to share information about the objects and functions that are available to clients.                                                                                 |
| RMI Object Port                                      | The TCP port on the main server station that the GUI clients are to use for JBOSS messaging, for example, during GUI user operations                                                                                                                                                                                                                                                                                 |
| <b>Main Server Configuration for Peer Server</b>     |                                                                                                                                                                                                                                                                                                                                                                                                                      |
| NAT (network address translation) Used               | If selected, specifies that NAT is to be used between this main server and the peer main server<br>Default: unselected                                                                                                                                                                                                                                                                                               |
| Private IP (accessible only by this server)          | The IP address that the NAT router uses to reach this main server<br>The parameter is displayed and configurable when the NAT (network address translation) Used parameter is selected.<br>Default: IP address of primary network interface                                                                                                                                                                          |
| Public IP (accessible to peer server)                | The IP address that the peer main server must use to reach this main server<br>Default: —                                                                                                                                                                                                                                                                                                                            |
| High Available JNDI Port                             | The TCP port on this station that the peer main server is to use for EJB JNDI messaging<br>Default: 1100                                                                                                                                                                                                                                                                                                             |
| TCP Port Cluster Number                              | The TCP port on this station that is used to communicate with the other server cluster members<br>Default: 11800                                                                                                                                                                                                                                                                                                     |
| <b>User Documentation</b>                            |                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Install User Documentation at Central Location Below | If selected, specifies that the user documentation is to be installed in the central location that you enter in the unlabeled field on the panel                                                                                                                                                                                                                                                                     |
| Install User Documentation to Client File System     | If selected, specifies that the user documentation is to be installed on the local file system of each GUI client                                                                                                                                                                                                                                                                                                    |
| Unlabeled field                                      | If Install User Documentation at Central Location Below is selected:<br>An absolute file path or URL that is accessible to the GUI clients; if the location is a URL and NAT is used, the URL must contain a public IP address<br>If Install User Documentation to Client File System is selected:<br>A path on the client file system that is relative to the nms directory under the client installation directory |
| <b>License Information for 5650 CPAM Server</b>      |                                                                                                                                                                                                                                                                                                                                                                                                                      |

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#### D. 5620 SAM conversion to redundancy parameters

| Panel and parameters                           | Description                                                                                                                                                                                                                                                                                                 |
|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Include 5650 CPAM Server License Information   | If selected, specifies that a 5650 CPAM is to be integrated with the 5620 SAM system                                                                                                                                                                                                                        |
| Unlabeled field                                | The 5650 CPAM license key value, which is in the following format:<br>XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX<br>You must include the dashes in the license key value that you enter.<br>The parameter is configurable when the Include 5650 CPAM Server License Information parameter is selected. |
| <b>SNMP Configuration</b>                      |                                                                                                                                                                                                                                                                                                             |
| NAT (network address translation) Used         | If selected, specifies that NAT is used between this main server and the managed NEs                                                                                                                                                                                                                        |
| SNMP Trap Receiving IPv4 Address               | The IPv4 address that the devices in the managed network must use to reach this main server<br>This parameter is mandatory.                                                                                                                                                                                 |
| SNMP Trap Receiving IPv6 Address               | The IPv6 address that the devices in the managed network use to reach this main server<br>This parameter is optional.                                                                                                                                                                                       |
| SNMP Trap Receiving Port                       | The TCP port that the devices in the managed network use to reach this main server                                                                                                                                                                                                                          |
| Trap Log Id                                    | The SNMP trap log ID that is associated with this main server                                                                                                                                                                                                                                               |
| <b>Peer Main Server Configurations</b>         |                                                                                                                                                                                                                                                                                                             |
| Peer Server IP Address                         | The IP address that this main server must use to reach the peer main server                                                                                                                                                                                                                                 |
| Peer Server Trap Log Id                        | The SNMP trap log ID that is associated with the peer main server                                                                                                                                                                                                                                           |
| Peer Server SNMP Trap Receiving IPv4 Address   | The IPv4 address that the devices in the managed network must use to reach the peer main server<br>This parameter is mandatory.                                                                                                                                                                             |
| Peer Server SNMP Trap Receiving IPv6 Address   | The IPv6 address that the devices in the managed network use to reach the peer main server<br>This parameter is optional.                                                                                                                                                                                   |
| Peer Server SNMP Trap Receiving Port           | The TCP port on the peer main server station that the devices in the managed network must use to reach the peer main server                                                                                                                                                                                 |
| Peer Server TCP Port Cluster Number            | The TCP port on the peer main server station that the server cluster members must use to reach the peer main server                                                                                                                                                                                         |
| <b>Peer Main Server Configurations (cont.)</b> |                                                                                                                                                                                                                                                                                                             |
| 5620 SAM Peer Server Hostname                  | The hostname that the GUI clients, OSS clients, and auxiliary servers must use to reach the peer main server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter in the Main Server Configuration For Clients panel is selected.                               |
| 5620 SAM Peer Server IP Address                | The IP address that the GUI and OSS clients must use to reach the primary main server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter in the Main Server Configuration For Clients panel is selected.                                                      |
| 5620 SAM JNDI High Available Peer Server Port  | The TCP port on the peer main server station that this main server is to use for EJB JNDI messaging                                                                                                                                                                                                         |
| 5620 SAM JNDI Peer Server Port                 | The TCP port on the peer main server station that the GUI clients are to use for EJB JNDI messaging                                                                                                                                                                                                         |
| <b>Navigation from External Systems</b>        |                                                                                                                                                                                                                                                                                                             |

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| Panel and parameters                           | Description                                                                                                                                                                         |
|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enable Navigation from External Systems        | If selected, enables the forwarding of 5620 SAM client GUI activity to a 5620 NM                                                                                                    |
| TCP port for accepting GUI navigation requests | The TCP port on this station that is to accept 5620 NM navigation requests<br>The parameter is configurable when the Enable Navigation from External Systems parameter is selected. |
| <b>XML Output Directory</b>                    |                                                                                                                                                                                     |
| Unlabeled field                                | The directory that is to contain the output of OSSI file export operations                                                                                                          |
| <b>Installation Complete</b>                   |                                                                                                                                                                                     |
| Start the 5620 SAM Main Server                 | If selected, specifies that the main server is to start automatically after the conversion<br>Default: unselected                                                                   |

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Table D-3 Standby database installation parameters

| Panel and parameters                                          | Description                                                                                                               |
|---------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <b>Software License Agreement</b>                             |                                                                                                                           |
| I accept the terms of the License Agreement                   | You accept the license terms and conditions. You must select this parameter before you can proceed to the next panel.     |
| I do NOT accept the terms of the License Agreement (default)  | You do not accept the license terms and conditions. You cannot proceed to the next panel when this parameter is selected. |
| <b>Choose Installation Type</b>                               |                                                                                                                           |
| Install & Configure a Standalone Database (default)           | Installs a standalone database                                                                                            |
| Restore a Database                                            | Restores a database using a backup file set                                                                               |
| Upgrade a Database                                            | Upgrades a database                                                                                                       |
| Install & Configure Primary/Standby Database                  | Installs a primary or standby database for a redundant 5620 SAM deployment<br>You must choose this option.                |
| <b>Install &amp; Configure Primary/Standby Database</b>       |                                                                                                                           |
| Primary Database Install (default)                            | Installs the primary database in a redundant deployment                                                                   |
| Convert Standalone Database to Primary                        | Converts a standalone database to the primary database in a redundant deployment                                          |
| Standby Database Install                                      | Installs the standby database in a redundant deployment<br>You must choose this option.                                   |
| <b>Install Oracle Software</b>                                |                                                                                                                           |
| Install Oracle Software (default)                             | Installs the Oracle software<br>You must choose this option.                                                              |
| Do not install Oracle Software                                | Does not install the Oracle software                                                                                      |
| <b>Specify the Base Directory for 5620 SAM Database Files</b> |                                                                                                                           |
| Unlabeled field                                               | The directory in which the database files are to be installed<br>Default: /opt/5620sam/samdb/install                      |

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| Panel and parameters                                  | Description                                                                                                                                                                                  |
|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Specify the Base Directory for Oracle Software</b> |                                                                                                                                                                                              |
| Unlabeled field                                       | The directory in which the Oracle files are to be installed<br>Default: /opt/5620sam/oracle10r2                                                                                              |
| <b>Standby Database Configuration Info</b>            |                                                                                                                                                                                              |
| NAT (network address translation) Used                | If selected, specifies that NAT is used between this database and the main servers                                                                                                           |
| Public IP (accessible to servers)                     | The IP address that the main servers must use to reach this database<br>Default: IP address of primary network interface                                                                     |
| Private IP                                            | The IP address that the NAT router uses to reach this database<br>The parameter is configurable when the NAT (network address translation) Used parameter is selected.                       |
| Database Proxy Port                                   | The TCP port on this station that the main servers are to use for non-JDBC operations<br>Default: 9002                                                                                       |
| <b>Determine Memory Requirements</b>                  |                                                                                                                                                                                              |
| Database co-exists with a 5620 SAM server             | If selected, specifies that the database and a main server are to be collocated on this station<br>Default: unselected                                                                       |
| <b>Main Server IP Validation</b>                      |                                                                                                                                                                                              |
| Enable SAM Server IP Validation                       | If selected, allows only the main servers specified by the Primary SAM Server IP Address and Peer SAM Server IP Address parameters to connect to the database<br>Default: unselected         |
| Server One IP Address                                 | The IP address of the primary main server that is to connect to this database<br>The parameter is configurable when the Enable SAM Server IP Validation parameter is selected.<br>Default: — |
| Server Two IP Address                                 | The IP address of the standby main server that is to connect to this database<br>The parameter is configurable when the Enable SAM Server IP Validation parameter is selected.<br>Default: — |
| <b>Auxiliary Servers</b>                              |                                                                                                                                                                                              |
| IP Address                                            | The IP address or hostname of the auxiliary server<br>Default: —                                                                                                                             |
| <b>Primary Database Info</b>                          |                                                                                                                                                                                              |
| Primary IP Address                                    | The IP address that each main server must use to reach the peer database station<br>Default: —                                                                                               |
| Primary Instance Name                                 | The name that the Oracle software associates with the database processes on this station<br>Default: samdb1                                                                                  |
| Primary SYS Password                                  | The password that Oracle requires to start the database<br>Default: available from Alcatel-Lucent technical support                                                                          |
| Primary Database Listener Port                        | The TCP port on the peer database station that the Oracle database listener uses to communicate with each main server<br>Default: 1523                                                       |

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| Panel and parameters        | Description                                                                                                         |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------|
| Primary Database Proxy Port | The TCP port on the peer database station that the main servers are to use for non-JDBC operations<br>Default: 9002 |

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Table D-4 Standby main server installation parameters

| Panel and parameters                                             | Description                                                                                                                                                                                                |
|------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Software License Agreement</b>                                |                                                                                                                                                                                                            |
| I accept the terms of the License Agreement                      | You accept the license terms and conditions. You must select this parameter before you can proceed to the next panel.                                                                                      |
| I do NOT accept the terms of the License Agreement (default)     | You do not accept the license terms and conditions. You cannot proceed to the next panel when this parameter is selected.                                                                                  |
| <b>Choose Installation Type</b>                                  |                                                                                                                                                                                                            |
| Main Server Installation (default)                               | Installs the main server software<br>You must choose this option.                                                                                                                                          |
| Main Server Configuration                                        | Configures the main server software                                                                                                                                                                        |
| Auxiliary Server Installation                                    | Installs the auxiliary server software                                                                                                                                                                     |
| Auxiliary Server Configuration                                   | Configures the auxiliary server software                                                                                                                                                                   |
| CPAM Server Installation                                         | Installs the 5650 CPAM server software                                                                                                                                                                     |
| CPAM Server Configuration                                        | Configures the 5650 CPAM server software                                                                                                                                                                   |
| <b>Specify the Base Directory for 5620 SAM Main Server Files</b> |                                                                                                                                                                                                            |
| Unlabeled field                                                  | The directory in which the main server files are to be installed<br>Default: /opt/5620sam/server                                                                                                           |
| <b>License Information for 5620 SAM Main Server</b>              |                                                                                                                                                                                                            |
| License Key                                                      | The 5620 SAM license key value, which is in the following format:<br>XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX<br>You must include the dashes in the license key value that you enter.<br>Default: — |
| <b>Additional Server Configuration</b>                           |                                                                                                                                                                                                            |
| Redundancy Supported                                             | If selected, specifies that the 5620 SAM system is deployed in a redundant configuration<br>You must choose this option.<br>Default: unselected                                                            |
| Auxiliary Server Supported                                       | If selected, specifies that the 5620 SAM deployment includes one or more auxiliary servers<br>Default: unselected                                                                                          |
| Client Delegate Server Supported                                 | If selected, specifies that the 5620 SAM deployment includes one or more client delegate servers<br>Default: unselected                                                                                    |

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| Panel and parameters                   | Description                                                                                                                                                                                                                                                                    |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enable LTE Backup File Synchronization | If selected, specifies that the 5620 SAM main servers synchronize the LTE backup files with each other<br>The parameter is configurable when the Redundancy Supported parameter is selected.<br>Default: selected                                                              |
| Enable LTE Stats File Synchronization  | If selected, specifies that the 5620 SAM main servers synchronize the LTE statistics files with each other<br>The parameter is configurable when the Redundancy Supported parameter is selected.<br>Default: selected                                                          |
| Enable SR Backup File Synchronization  | If selected, specifies that the 5620 SAM main servers synchronize the NE configuration backup files with each other<br>The parameter is configurable when the Redundancy Supported parameter is selected.<br>Default: unselected                                               |
| <b>Primary Database Configuration</b>  |                                                                                                                                                                                                                                                                                |
| Primary Database Server IP Address     | The IP address that this main server must use to reach the primary database station<br>The value must match the Database Server IP Address value specified on the Standalone Database Info panel during the standalone database conversion.<br>Default: —                      |
| Primary Database Server Port           | The TCP port on the primary database station that this main server must use to reach the database<br>The value must match the Database Listener Port value specified on the Standalone Database Info (cont.) panel during the standalone database conversion.<br>Default: 1523 |
| Primary Database Instance Name         | The name that the Oracle software associates with the database processes on the primary database station<br>The value must match the Instance Name value specified on the Standalone Database Info panel during the standalone database conversion.<br>Default: samdb1         |
| Database User Name                     | The database username<br>The value must match the User Name value specified on the Standalone Database Info panel during the standalone database conversion.<br>Default: samuser                                                                                               |
| Database User Password                 | The database password<br>The value must match the User Password value specified on the Standalone Database Info panel during the standalone database conversion.<br>Default: available from Alcatel-Lucent technical support                                                   |
| Primary Database Proxy Port            | The TCP port on the primary database station that this main server is to use for non-JDBC operations<br>The value must match the Database Proxy Port value specified on the Standalone Database Info (cont.) panel during the standalone database conversion.<br>Default: 9002 |
| <b>Online Database Backup</b>          |                                                                                                                                                                                                                                                                                |
| Online Backup Interval (Hours)         | How often, in hours, the 5620 SAM is to back up the database<br>Default: 24                                                                                                                                                                                                    |

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| Panel and parameters                                   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Online Backup Destination                              | <p>The backup directory on the database station</p> <p>Alcatel-Lucent recommends that you do the following:</p> <ul style="list-style-type: none"> <li>Specify an Online Backup Destination that can hold at least five times the expected database size.</li> <li>Ensure that the available space in the Online Backup Destination is sufficient to accommodate the database growth associated with network growth.</li> </ul> <p>Default: /opt/5620sam/dbbackup</p>      |
| Number Of Backup Sets                                  | <p>The number of database backup sets that the 5620 SAM is to retain</p> <p>The 5620 SAM creates a separate directory for each backup set. For example, if the Online Backup Destination is /opt/5620sam/dbbackup and the Number Of Backup Sets is 3, the /opt/5620sam/dbbackup directory contains the backupset_1, backupset_2, and backupset_3 subdirectories.</p> <p>Default: 3</p>                                                                                     |
| <b>Standby Database Configuration</b>                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Database Server IP Address                             | <p>The IP address that this main server must use to reach the standby database station</p> <p>Default: —</p>                                                                                                                                                                                                                                                                                                                                                               |
| Database Instance Name                                 | <p>The name that the Oracle software associates with the database processes on the standby database station</p> <p>Default: samdb2</p>                                                                                                                                                                                                                                                                                                                                     |
| Database Proxy Port                                    | <p>The TCP port on the standby database station that this main server is to use for non-JDBC operations</p> <p>Default: 9002</p>                                                                                                                                                                                                                                                                                                                                           |
| Enable Database Backup File Synchronization            | <p>If selected, specifies that each 5620 SAM database backup file set is copied to the peer database after the backup completes</p> <p>You must configure this parameter the same on each main server.</p> <p>You must ensure that there is sufficient network bandwidth between the database stations before you enable this parameter. See the <i>5620 SAM Planning Guide</i> for information about the bandwidth required for database backup file synchronization.</p> |
| <b>Main Server Configuration for Auxiliary Servers</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| NAT (network address translation) Used                 | <p>If selected, specifies that NAT is used between this main server and the auxiliary servers</p> <p>Default: unselected</p>                                                                                                                                                                                                                                                                                                                                               |
| Private IP (accessible only by this server)            | <p>The IP address that the NAT router uses to reach this main server</p> <p>The parameter is configurable when the NAT (network address translation) Used parameter is selected.</p> <p>Default: IP address of primary network interface</p>                                                                                                                                                                                                                               |
| Public IP (accessible to auxiliary)                    | <p>The IP address that the auxiliary servers must use to reach this main server</p> <p>Default: —</p>                                                                                                                                                                                                                                                                                                                                                                      |
| Server port                                            | <p>The TCP port on this station that the auxiliary servers must use to reach this main server</p> <p>Default: 12800</p>                                                                                                                                                                                                                                                                                                                                                    |
| Enable Stats Collection on Auxiliary Servers           | <p>If selected, specifies that at least one auxiliary server is to be used for statistics collection</p>                                                                                                                                                                                                                                                                                                                                                                   |
| Enable Call Trace Collection on Auxiliary Servers      | <p>If selected, specifies that at least two auxiliary servers are to be used for call-trace data collection</p>                                                                                                                                                                                                                                                                                                                                                            |
| <b>Auxiliary Server Configuration</b>                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| IP Address                                             | <p>The IP address that each main server must use to reach the auxiliary server</p> <p>Default: —</p>                                                                                                                                                                                                                                                                                                                                                                       |

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| Panel and parameters                                               | Description                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Port                                                               | The TCP port on the auxiliary server that this main server must use to reach the auxiliary server<br>Default: 12800                                                                                                                                                                                                                                                  |
| Type                                                               | Preferred—specifies that the main server uses this auxiliary server under normal conditions<br>Reserved—specifies that the main server uses this auxiliary server when the Preferred auxiliary server is unavailable<br>Default: Preferred                                                                                                                           |
| <b>Database Alignment</b>                                          |                                                                                                                                                                                                                                                                                                                                                                      |
| Enable Database Alignment                                          | If selected, enables automatic database alignment<br>Default: unselected                                                                                                                                                                                                                                                                                             |
| <i>IP_address_1:instance_name</i><br>(Primary Preferred) (default) | If selected, specifies that the database that is the designated primary database is the preferred database of the primary main server<br>The parameter is configurable when the Enable Database Alignment parameter is selected.                                                                                                                                     |
| <i>IP_address_2:instance_name</i><br>(Standby Preferred)           | If selected, specifies that the database that is the designated standby database is the preferred database of the primary main server<br>The parameter is configurable when the Enable Database Alignment parameter is selected.                                                                                                                                     |
| <b>Main Server Configuration For Clients</b>                       |                                                                                                                                                                                                                                                                                                                                                                      |
| Server Domain Name                                                 | The unique identifier of the 5620 SAM server cluster<br>Default: 5620sam                                                                                                                                                                                                                                                                                             |
| Use Hostname for Communication                                     | If selected, specifies that the GUI clients, OSS clients, and auxiliary servers use a hostname, rather than an IP address, to reach this main server<br>Default: unselected                                                                                                                                                                                          |
| NAT (network address translation) Used                             | If selected, specifies that NAT is used between this main server and the GUI clients, OSS clients, and auxiliary servers<br>Default: unselected                                                                                                                                                                                                                      |
| Private IP (accessible only by this server)                        | The IP address that the NAT router uses to reach this main server<br>The parameter is displayed and configurable when the NAT (network address translation) Used parameter is selected.<br>Default: IP address of primary network interface                                                                                                                          |
| Public Hostname (accessible to clients)                            | The hostname that the GUI clients, OSS clients, and auxiliary servers must use to reach the main server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter is selected.<br>Default: —                                                                                                                                  |
| Public IP (accessible to clients)                                  | The IP address that the GUI clients, OSS clients, and auxiliary servers must use to reach this main server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter is unselected.<br>Default: —                                                                                                                             |
| EJB JNDI Server port                                               | The TCP port on this station that the GUI clients are to use for EJB JNDI messaging<br>Alcatel-Lucent recommends that you accept the default value unless one of the following is true: <ul style="list-style-type: none"> <li>• Another application uses the port.</li> <li>• There is a firewall between the clients and the main server.</li> </ul> Default: 1099 |

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| Panel and parameters                                           | Description                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EJB JMS Server port                                            | <p>The TCP port on this station that the GUI clients are to use for EJB JMS messaging. Alcatel-Lucent recommends that you accept the default value unless one of the following is true:</p> <ul style="list-style-type: none"> <li>• Another application uses the port.</li> <li>• There is a firewall between the clients and the main server.</li> </ul> <p>Default: 8093</p>      |
| Enable 5670 RAM                                                | <p>If selected, specifies that a 5670 RAM is to be integrated with the 5620 SAM system</p> <p>Default: unselected</p>                                                                                                                                                                                                                                                                |
| Enable 3GPP OSS Interface                                      | <p>If selected, specifies that the 5620 SAM 3GPP OSS interface is to be enabled</p> <p>Default: unselected</p>                                                                                                                                                                                                                                                                       |
| <b>Main Server Configuration for Clients (cont.)</b>           |                                                                                                                                                                                                                                                                                                                                                                                      |
| RMI Port                                                       | <p>The TCP port on the main server station that the GUI clients are to use for JBOSS name service communication, such as requesting objects or functions from the main server. In a redundant 5620 SAM deployment, the main servers use this port to share information about the objects and functions that are available to clients.</p> <p>Default: 1098</p>                       |
| RMI Object Port                                                | <p>The TCP port on the main server station that the GUI clients are to use for JBOSS messaging, for example, during GUI user operations</p> <p>Default: 4444</p>                                                                                                                                                                                                                     |
| <b>Main Server Configuration for Peer Server</b>               |                                                                                                                                                                                                                                                                                                                                                                                      |
| NAT (network address translation) Used                         | <p>If selected, specifies that NAT is used between this main server and the peer main server</p> <p>Default: unselected</p>                                                                                                                                                                                                                                                          |
| Private IP (accessible only by this server)                    | <p>The IP address that the NAT router uses to reach this main server. The parameter is displayed and configurable when the NAT (network address translation) Used parameter is selected.</p> <p>Default: IP address of primary network interface</p>                                                                                                                                 |
| Public IP (accessible to peer server)                          | <p>The IP address that the peer main server must use to reach this main server</p> <p>Default: —</p>                                                                                                                                                                                                                                                                                 |
| High Available JNDI Port                                       | <p>The TCP port on this station that the peer main server is to use for EJB JNDI messaging. Alcatel-Lucent recommends that you accept the default value unless one of the following is true:</p> <ul style="list-style-type: none"> <li>• Another application uses the port.</li> <li>• There is a firewall between the clients and the main server.</li> </ul> <p>Default: 1100</p> |
| TCP Port Cluster Number                                        | <p>The TCP port on this station that is used to communicate with the other server cluster members</p> <p>Default: 11800</p>                                                                                                                                                                                                                                                          |
| <b>User Documentation</b>                                      |                                                                                                                                                                                                                                                                                                                                                                                      |
| Install User Documentation at Central Location Below (default) | <p>If selected, specifies that the user documentation is to be installed in the central location that you enter in the unlabeled field on the panel</p>                                                                                                                                                                                                                              |
| Install User Documentation to Client File System               | <p>If selected, specifies that the user documentation is to be installed on the local file system of each GUI client</p>                                                                                                                                                                                                                                                             |

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| Panel and parameters                            | Description                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Unlabeled field                                 | <p>If Install User Documentation at Central Location Below is selected:<br/>An absolute file path or URL that is accessible to the GUI clients; if the location is a URL and NAT is used, the URL must contain a public IP address</p> <p>If Install User Documentation to Client File System is selected:<br/>A path on the client file system that is relative to the nms directory under the client installation directory</p> <p>Default: —</p> |
| <b>License Information for 5650 CPAM Server</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Include 5650 CPAM Server License Information    | <p>If selected, specifies that a 5650 CPAM is to be integrated with the 5620 SAM system</p> <p>Default: unselected</p>                                                                                                                                                                                                                                                                                                                              |
| Unlabeled field                                 | <p>The 5650 CPAM license key value, which is in the following format:<br/>XXXXXX-XXXXXX-XXXXXX-XXXXXX-XXXXXX-XXXXXX-XXXXXX-XXXXXX</p> <p>You must include the dashes in the license key value that you enter.</p> <p>The parameter is configurable when the Include 5650 CPAM Server License Information parameter is selected.</p> <p>Default: —</p>                                                                                               |
| <b>SNMP Configuration</b>                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| NAT (network address translation) Used          | <p>If selected, specifies that NAT is used between this main server and the managed NEs</p>                                                                                                                                                                                                                                                                                                                                                         |
| SNMP Trap Receiving IPv4 Address                | <p>The IPv4 address that the devices in the managed network must use to reach this main server</p> <p>This parameter is mandatory.</p> <p>Default: —</p>                                                                                                                                                                                                                                                                                            |
| SNMP Trap Receiving IPv6 Address                | <p>The IPv6 address that the devices in the managed network use to reach this main server</p> <p>This parameter is optional.</p> <p>Default: —</p>                                                                                                                                                                                                                                                                                                  |
| SNMP Trap Receiving Port                        | <p>The TCP port that the devices in the managed network must use to reach this main server</p> <p>Default: 162</p>                                                                                                                                                                                                                                                                                                                                  |
| Trap Log Id                                     | <p>The SNMP trap log ID that is associated with this main server</p> <p>Default: 98</p>                                                                                                                                                                                                                                                                                                                                                             |
| <b>Peer Main Server Configurations</b>          |                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Peer Server IP Address                          | <p>The IP address that this main server must use to reach the peer main server</p> <p>Default: —</p>                                                                                                                                                                                                                                                                                                                                                |
| Peer Server Trap Log Id                         | <p>The SNMP trap log ID that is associated with the peer main server</p> <p>Default: 98</p>                                                                                                                                                                                                                                                                                                                                                         |
| Peer Server SNMP Trap Receiving IPv4 Address    | <p>The IPv4 address that the devices in the managed network must use to reach the peer main server</p> <p>This parameter is mandatory.</p> <p>Default: —</p>                                                                                                                                                                                                                                                                                        |
| Peer Server SNMP Trap Receiving IPv6 Address    | <p>The IPv6 address that the devices in the managed network use to reach the peer main server</p> <p>This parameter is optional.</p> <p>Default: —</p>                                                                                                                                                                                                                                                                                              |

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| Panel and parameters                           | Description                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Peer Server SNMP Trap Receiving Port           | The TCP port on the peer main server station that the devices in the managed network must use to reach the peer main server<br>Default: 162                                                                                                                                                                                                                                          |
| Peer Server TCP Port Cluster Number            | The TCP port on the peer main server station that the server cluster members must use to reach the peer main server<br>Default: 11800                                                                                                                                                                                                                                                |
| <b>Peer Main Server Configurations (cont.)</b> |                                                                                                                                                                                                                                                                                                                                                                                      |
| 5620 SAM Peer Server Hostname                  | The hostname that the GUI clients, OSS clients, and auxiliary servers must use to reach the peer main server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter in the Main Server Configuration For Clients panel is selected.<br>Default: —                                                                                          |
| 5620 SAM Peer Server IP Address                | The IP address that the GUI clients, OSS clients, and auxiliary servers must use to reach the peer main server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter in the Main Server Configuration For Clients panel is unselected.<br>Default: —                                                                                      |
| 5620 SAM JNDI High Available Peer Server Port  | The TCP port on the peer main server station that this main server is to use for EJB JNDI messaging<br>Alcatel-Lucent recommends that you accept the default value unless one of the following is true: <ul style="list-style-type: none"> <li>• Another application uses the port.</li> <li>• There is a firewall between the clients and the main server.</li> </ul> Default: 1100 |
| 5620 SAM JNDI Peer Server Port                 | The TCP port on the peer main server station that the GUI clients are to use for EJB JNDI messaging<br>Alcatel-Lucent recommends that you accept the default value unless one of the following is true: <ul style="list-style-type: none"> <li>• Another application uses the port.</li> <li>• There is a firewall between the clients and the main server.</li> </ul> Default: 1099 |
| <b>Navigation from External Systems</b>        |                                                                                                                                                                                                                                                                                                                                                                                      |
| Enable Navigation from External Systems        | If selected, enables the forwarding of 5620 SAM client GUI activity to a 5620 NM<br>Default: unselected                                                                                                                                                                                                                                                                              |
| TCP port for accepting GUI navigation requests | The TCP port on this station that is to accept 5620 NM navigation requests<br>The parameter is configurable when the Enable Navigation from External Systems parameter is selected.<br>Default: —                                                                                                                                                                                    |
| <b>XML Output Directory</b>                    |                                                                                                                                                                                                                                                                                                                                                                                      |
| Unlabeled field                                | The directory that is to contain the output of OSS file export operations<br>Default: /opt/5620sam/server/xml_output                                                                                                                                                                                                                                                                 |
| <b>Installation Complete</b>                   |                                                                                                                                                                                                                                                                                                                                                                                      |
| Start the 5620 SAM Main Server                 | If selected, specifies that the main server is to start automatically after the installation<br>Default: unselected                                                                                                                                                                                                                                                                  |

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## *E. 5650 CPAM installation and upgrade parameters*

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E.1 5650 CPAM installation parameters *E-2*

E.2 5650 CPAM upgrade parameters *E-9*

## E.1 5650 CPAM installation parameters

Table E-1 lists and describes the parameters that are configurable during a standalone 5650 CPAM server installation. Table E-2 lists and describes the parameters that are configurable for each 5650 CPAM server during a redundant installation. The parameters are grouped by installer panel in the order that the panels are displayed.

Table E-1 Standalone 5650 CPAM server installation parameters

| Panel and parameters                                           | Description                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Software License Agreement</b>                              |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| I accept the terms of the License Agreement                    | You accept the license terms and conditions. You must select this parameter before you can proceed to the next panel.                                                                                                                                                                                                                                                                                                              |
| I do NOT accept the terms of the License Agreement (default)   | You do not accept the license terms and conditions. You cannot proceed to the next panel when this parameter is selected.                                                                                                                                                                                                                                                                                                          |
| <b>Choose Installation Type</b>                                |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Main Server Installation (default)                             | Installs the 5620 SAM main server software                                                                                                                                                                                                                                                                                                                                                                                         |
| Main Server Configuration                                      | Configures the 5620 SAM main server software                                                                                                                                                                                                                                                                                                                                                                                       |
| Auxiliary Server Installation                                  | Installs the 5620 SAM auxiliary server software                                                                                                                                                                                                                                                                                                                                                                                    |
| Auxiliary Server Configuration                                 | Configures the 5620 SAM auxiliary server software                                                                                                                                                                                                                                                                                                                                                                                  |
| CPAM Server Installation                                       | Installs the 5650 CPAM server software<br>You must choose this option.                                                                                                                                                                                                                                                                                                                                                             |
| CPAM Server Configuration                                      | Configures the 5650 CPAM server software                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Specify the Base Directory for 5650 CPAM Server Files</b>   |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Unlabeled field                                                | The directory in which the 5650 CPAM server files are to be installed<br>Default: /opt/5620sam/server                                                                                                                                                                                                                                                                                                                              |
| <b>User Documentation</b>                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Install User Documentation at Central Location Below (default) | If selected, specifies that the user documentation is to be installed in the central location that you enter in the unlabeled field on the panel                                                                                                                                                                                                                                                                                   |
| Install User Documentation to Client File System               | If selected, specifies that the user documentation is to be installed on the local file system of each GUI client                                                                                                                                                                                                                                                                                                                  |
| Unlabeled field                                                | If Install User Documentation at Central Location Below is selected:<br>An absolute file path or URL that is accessible to the GUI clients; if the location is a URL and NAT is used, the URL must contain a public IP address<br>If Install User Documentation to Client File System is selected:<br>A path on the client file system that is relative to the nms directory under the client installation directory<br>Default: — |
| <b>License Information for 5650 CPAM Server</b>                |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| License Key                                                    | The 5650 CPAM license key value, which is in the following format:<br>XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX<br>You must include the dashes in the license key value that you enter.<br>Default: —                                                                                                                                                                                                                        |

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| Panel and parameters                                   | Description                                                                                                                                                                                                                       |
|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Additional Server Configuration</b>                 |                                                                                                                                                                                                                                   |
| Redundancy Supported                                   | If selected, specifies that the 5650 CPAM system is deployed in a redundant configuration<br>You must leave this parameter unselected.<br>Default: unselected                                                                     |
| Auxiliary Server Supported                             | If selected, specifies that the 5650 CPAM deployment includes one or more auxiliary servers<br>Default: unselected                                                                                                                |
| Client Delegate Server Supported                       | If selected, specifies that the 5650 CPAM deployment includes one or more client delegate servers<br>Default: unselected                                                                                                          |
| <b>Database Configuration</b>                          |                                                                                                                                                                                                                                   |
| Database Server IP Address                             | The IP address that the 5650 CPAM server must use to reach the database station<br>Default: —                                                                                                                                     |
| Database Server Port                                   | The TCP port on the database station that is to receive communication from the 5650 CPAM server<br>Default: 1523                                                                                                                  |
| Database Instance Name                                 | The name that the Oracle software associates with the database processes<br>Default: samdb                                                                                                                                        |
| Database User Name                                     | The database username<br>Default: samuser                                                                                                                                                                                         |
| Database User Password                                 | The database password<br>Default: available from Alcatel-Lucent technical support                                                                                                                                                 |
| Database Proxy Port                                    | The TCP port on the database station that the 5650 CPAM server is to use for redundancy communication, such as the initiation of a database failover or notification of a server activity switch<br>Default: 9002                 |
| <b>CPAM Server Configuration for Auxiliary Servers</b> |                                                                                                                                                                                                                                   |
| NAT (network address translation) Used                 | If selected, specifies that NAT is used between the 5650 CPAM server and the auxiliary servers<br>Default: unselected                                                                                                             |
| Private IP (accessible only by this server)            | The IP address that the NAT router uses to reach the 5650 CPAM server<br>The parameter is configurable when the NAT (network address translation) Used parameter is selected.<br>Default: IP address of primary network interface |
| Public IP (accessible to auxiliary)                    | The IP address that the auxiliary servers must use to reach the 5650 CPAM server<br>Default: —                                                                                                                                    |
| Server port                                            | The TCP port on this station that the auxiliary servers must use to reach the 5650 CPAM server<br>Default: 12800                                                                                                                  |
| <b>CPAM Server Address Configuration for Clients</b>   |                                                                                                                                                                                                                                   |
| Server Domain Name                                     | The unique identifier of the 5620 SAM/5650 CPAM server cluster<br>Default: 5620sam                                                                                                                                                |

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| Panel and parameters                           | Description                                                                                                                                                                                                                                                                                                                                                               |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Use Hostname for Communication                 | If selected, specifies that the GUI clients, OSS clients, and auxiliary servers use a hostname, rather than an IP address, to reach the 5650 CPAM server<br>Default: unselected                                                                                                                                                                                           |
| NAT (network address translation) Used         | If selected, specifies that NAT is used between the 5650 CPAM server and the GUI clients, OSS clients, and auxiliary servers<br>Default: unselected                                                                                                                                                                                                                       |
| Private IP (accessible only by this server)    | The IP address that the NAT router uses to reach the 5650 CPAM server<br>The parameter is displayed and configurable when the NAT (network address translation) Used parameter is selected.<br>Default: IP address of primary network interface                                                                                                                           |
| Public Hostname (accessible to clients)        | The hostname that the GUI clients, OSS clients, and auxiliary servers must use to reach the 5650 CPAM server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter is selected.<br>Default: —                                                                                                                                  |
| Public IP (accessible to clients)              | The IP address that the GUI clients, OSS clients, and auxiliary servers must use to reach the 5650 CPAM server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter is unselected.<br>Default: —                                                                                                                              |
| EJB JNDI Server port                           | The TCP port on this station that the GUI clients are to use for EJB JNDI messaging<br>Alcatel-Lucent recommends that you accept the default value unless one of the following is true: <ul style="list-style-type: none"> <li>• Another application uses the port.</li> <li>• There is a firewall between the clients and the 5650 CPAM server.</li> </ul> Default: 1099 |
| EJB JMS Server port                            | The TCP port on this station that the GUI clients are to use for EJB JMS messaging<br>Alcatel-Lucent recommends that you accept the default value unless one of the following is true: <ul style="list-style-type: none"> <li>• Another application uses the port.</li> <li>• There is a firewall between the clients and the 5650 CPAM server.</li> </ul> Default: 8093  |
| <b>Navigation from External Systems</b>        |                                                                                                                                                                                                                                                                                                                                                                           |
| Enable Navigation from External Systems        | If selected, enables the forwarding of 5620 SAM client GUI activity to a 5620 NM<br>Default: unselected                                                                                                                                                                                                                                                                   |
| TCP port for accepting GUI navigation requests | The TCP port on this station that is to accept 5620 NM navigation requests<br>The parameter is configurable when the Enable Navigation from External Systems parameter is selected.<br>Default: —                                                                                                                                                                         |
| <b>XML Output Directory</b>                    |                                                                                                                                                                                                                                                                                                                                                                           |
| Unlabeled field                                | The directory that is to contain the output of OSS file export operations<br>Default: /opt/5620sam/server/xml_output                                                                                                                                                                                                                                                      |
| <b>Installation Complete</b>                   |                                                                                                                                                                                                                                                                                                                                                                           |
| Start the 5650 CPAM Server                     | If selected, specifies that the 5650 CPAM server is to start automatically after the installation<br>Default: unselected                                                                                                                                                                                                                                                  |

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Table E-2 Redundant 5650 CPAM server installation parameters

| Panel and parameters                                           | Description                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Software License Agreement</b>                              |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| I accept the terms of the License Agreement                    | You accept the license terms and conditions. You must select this parameter before you can proceed to the next panel.                                                                                                                                                                                                                                                                                                              |
| I do NOT accept the terms of the License Agreement (default)   | You do not accept the license terms and conditions. You cannot proceed to the next panel when this parameter is selected.                                                                                                                                                                                                                                                                                                          |
| <b>Choose Installation Type</b>                                |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Main Server Installation (default)                             | Installs the 5620 SAM main server software                                                                                                                                                                                                                                                                                                                                                                                         |
| Main Server Configuration                                      | Configures the 5620 SAM main server software                                                                                                                                                                                                                                                                                                                                                                                       |
| Auxiliary Server Installation                                  | Installs the 5620 SAM auxiliary server software                                                                                                                                                                                                                                                                                                                                                                                    |
| Auxiliary Server Configuration                                 | Configures the 5620 SAM auxiliary server software                                                                                                                                                                                                                                                                                                                                                                                  |
| CPAM Server Installation                                       | Installs the 5650 CPAM server software<br>You must choose this option.                                                                                                                                                                                                                                                                                                                                                             |
| CPAM Server Configuration                                      | Configures the 5650 CPAM server software                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Specify the Base Directory for 5650 CPAM Server Files</b>   |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Unlabeled field                                                | The directory in which the 5650 CPAM server files are to be installed<br>Default: /opt/5620sam/server                                                                                                                                                                                                                                                                                                                              |
| <b>User Documentation</b>                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Install User Documentation at Central Location Below (default) | If selected, specifies that the user documentation is to be installed in the central location that you enter in the unlabeled field on the panel                                                                                                                                                                                                                                                                                   |
| Install User Documentation to Client File System               | If selected, specifies that the user documentation is to be installed on the local file system of each GUI client                                                                                                                                                                                                                                                                                                                  |
| Unlabeled field                                                | If Install User Documentation at Central Location Below is selected:<br>An absolute file path or URL that is accessible to the GUI clients; if the location is a URL and NAT is used, the URL must contain a public IP address<br>If Install User Documentation to Client File System is selected:<br>A path on the client file system that is relative to the nms directory under the client installation directory<br>Default: — |
| <b>License Information for 5650 CPAM Server</b>                |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| License Key                                                    | The 5650 CPAM license key value, which is in the following format:<br>XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX<br>You must include the dashes in the license key value that you enter.<br>Default: —                                                                                                                                                                                                                        |
| <b>Additional Server Configuration</b>                         |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Redundancy Supported                                           | If selected, specifies that the 5650 CPAM system is deployed in a redundant configuration<br>You must select this parameter.<br>Default: unselected                                                                                                                                                                                                                                                                                |

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| Panel and parameters                                   | Description                                                                                                                                                                                                                |
|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Auxiliary Server Supported                             | If selected, specifies that the 5650 CPAM deployment includes one or more auxiliary servers<br>Default: unselected                                                                                                         |
| Client Delegate Server Supported                       | If selected, specifies that the 5650 CPAM deployment includes one or more client delegate servers<br>Default: unselected                                                                                                   |
| <b>Primary Database Configuration</b>                  |                                                                                                                                                                                                                            |
| Primary Database Server IP Address                     | The IP address that this 5650 CPAM server must use to reach the primary database station<br>Default: —                                                                                                                     |
| Primary Database Server Port                           | The TCP port on the primary database station that is to receive communication from this 5650 CPAM server<br>Default: 1523                                                                                                  |
| Primary Database Instance Name                         | The name that the Oracle software associates with the database processes on the primary database station<br>Default: samdb1                                                                                                |
| Database User Name                                     | The database username<br>Default: samuser                                                                                                                                                                                  |
| Database User Password                                 | The database password<br>Default: available from Alcatel-Lucent technical support                                                                                                                                          |
| Primary Database Proxy Port                            | The TCP port on the primary database station that this 5650 CPAM server is to use for redundancy communication, such as the initiation of a database failover or notification of a server activity switch<br>Default: 9002 |
| <b>Standby Database Configuration</b>                  |                                                                                                                                                                                                                            |
| Database Server IP Address                             | The IP address that this 5650 CPAM server must use to reach the standby database station<br>Default: —                                                                                                                     |
| Database Instance Name                                 | The name that the Oracle software associates with the database processes on the standby database station<br>Default: samdb2                                                                                                |
| Database Proxy Port                                    | The TCP port on the standby database station that this 5650 CPAM server is to use for redundancy communication, such as the initiation of a database failover or notification of a server activity switch<br>Default: 9002 |
| <b>CPAM Server Configuration for Auxiliary Servers</b> |                                                                                                                                                                                                                            |
| NAT (network address translation) Used                 | If selected, specifies that NAT is used between this 5650 CPAM server and the auxiliary servers<br>Default: unselected                                                                                                     |
| Private IP (accessible only by this server)            | The IP address that the NAT router uses to reach this station<br>The parameter is configurable when the NAT (network address translation) Used parameter is selected.<br>Default: IP address of primary network interface  |
| Public IP (accessible to auxiliary)                    | The IP address that the auxiliary servers must use to reach this 5650 CPAM server<br>Default: —                                                                                                                            |

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| Panel and parameters                                 | Description                                                                                                                                                                                                                                                                                                                                                               |
|------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Server port                                          | The TCP port on this station that the auxiliary servers must use to reach this 5650 CPAM server<br>Default: 12800                                                                                                                                                                                                                                                         |
| <b>CPAM Server Address Configuration for Clients</b> |                                                                                                                                                                                                                                                                                                                                                                           |
| Server Domain Name                                   | The unique identifier of the 5620 SAM/5650 CPAM server cluster<br>Default: 5620sam                                                                                                                                                                                                                                                                                        |
| Use Hostname for Communication                       | If selected, specifies that the GUI clients, OSS clients, and auxiliary servers use a hostname, rather than an IP address, to reach this 5650 CPAM server<br>Default: unselected                                                                                                                                                                                          |
| NAT (network address translation) Used               | If selected, specifies that NAT is used between this 5650 CPAM server and the GUI clients, OSS clients, and auxiliary servers<br>Default: unselected                                                                                                                                                                                                                      |
| Private IP (accessible only by this server)          | The IP address that the NAT router uses to reach this station<br>The parameter is displayed and configurable when the NAT (network address translation) Used parameter is selected.<br>Default: IP address of primary network interface                                                                                                                                   |
| Public Hostname (accessible to clients)              | The hostname that the GUI clients, OSS clients, and auxiliary servers must use to reach this 5650 CPAM server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter is selected.<br>Default: —                                                                                                                                 |
| Public IP (accessible to clients)                    | The IP address that the GUI clients, OSS clients, and auxiliary servers must use to reach this 5650 CPAM server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter is unselected.<br>Default: —                                                                                                                             |
| EJB JNDI Server port                                 | The TCP port on this station that the GUI clients are to use for EJB JMS messaging<br>Alcatel-Lucent recommends that you accept the default value unless one of the following is true: <ul style="list-style-type: none"> <li>• Another application uses the port.</li> <li>• There is a firewall between the clients and this 5650 CPAM server.</li> </ul> Default: 1099 |
| EJB JMS Server port                                  | The TCP port on this station that the GUI clients are to use for EJB JMS messaging<br>Alcatel-Lucent recommends that you accept the default value unless one of the following is true: <ul style="list-style-type: none"> <li>• Another application uses the port.</li> <li>• There is a firewall between the clients and this 5650 CPAM server.</li> </ul> Default: 8093 |
| <b>CPAM Server Address Configuration</b>             |                                                                                                                                                                                                                                                                                                                                                                           |
| Public IP (visible to peer server)                   | The IP address that the peer 5650 CPAM server must use to reach this 5650 CPAM server<br>Default: —                                                                                                                                                                                                                                                                       |

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| Panel and parameters                           | Description                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| High Available JNDI Port                       | <p>The TCP port on this station that the peer 5650 CPAM server is to use for EJB JNDI messaging</p> <p>Alcatel-Lucent recommends that you accept the default value unless one of the following is true:</p> <ul style="list-style-type: none"> <li>• Another application uses the port.</li> <li>• There is a firewall between the clients and this 5650 CPAM server.</li> </ul> <p>Default: 1100</p> |
| TCP Port Cluster Number                        | <p>The TCP port on this station that is used to communicate with the other 5620 SAM/5650 CPAM server cluster members</p> <p>Default: 11800</p>                                                                                                                                                                                                                                                        |
| NAT (network address translation) Used         | <p>If selected, specifies that NAT is used between this 5650 CPAM server and the peer 5650 CPAM server</p> <p>Default: unselected</p>                                                                                                                                                                                                                                                                 |
| Private IP (accessible only by this server)    | <p>The IP address that the NAT router uses to reach this station</p> <p>The parameter is displayed and configurable when the NAT (network address translation) Used parameter is selected.</p> <p>Default: IP address of primary network interface</p>                                                                                                                                                |
| <b>Peer CPAM Server Configurations</b>         |                                                                                                                                                                                                                                                                                                                                                                                                       |
| Peer Server IP Address                         | <p>The IP address that this 5650 CPAM server must use to reach the peer 5650 CPAM server</p> <p>Default: —</p>                                                                                                                                                                                                                                                                                        |
| Peer Server Trap Log Id                        | <p>The SNMP trap log ID that is associated with the peer 5650 CPAM server</p> <p>Default: 98</p>                                                                                                                                                                                                                                                                                                      |
| Peer Server SNMP Trap Receiving IP Address     | <p>The IP address that the devices in the managed network must use to reach the peer 5650 CPAM server</p> <p>Default: —</p>                                                                                                                                                                                                                                                                           |
| Peer Server SNMP Trap Receiving Port           | <p>The TCP port on the peer 5650 CPAM server station that the devices in the managed network must use to reach the peer 5650 CPAM server</p> <p>Default: 162</p>                                                                                                                                                                                                                                      |
| Peer Server TCP Port Cluster Number            | <p>The TCP port on the peer 5650 CPAM server station that is used to communicate with the other 5620 SAM/5650 CPAM server cluster members</p> <p>Default: 11800</p>                                                                                                                                                                                                                                   |
| <b>Peer CPAM Server Configurations (cont.)</b> |                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5620 SAM Peer Server Hostname                  | <p>The hostname that the GUI clients, OSS clients, and auxiliary servers must use to reach the peer 5650 CPAM server</p> <p>The parameter is displayed and configurable when the Use Hostname for Communication parameter in the CPAM Server Address Configuration for Clients panel is selected.</p> <p>Default: —</p>                                                                               |
| 5650 CPAM Peer Server IP Address               | <p>The IP address that the GUI clients, OSS clients, and auxiliary servers must use to reach the peer 5650 CPAM server</p> <p>The parameter is displayed and configurable when the Use Hostname for Communication parameter in the CPAM Server Address Configuration for Clients panel is unselected.</p> <p>Default: —</p>                                                                           |

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| Panel and parameters                           | Description                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5650 CPAM JNDI High Available Peer Server Port | <p>The TCP port on the peer 5650 CPAM server station that this 5650 CPAM server is to use for EJB JNDI messaging</p> <p>Alcatel-Lucent recommends that you accept the default value unless one of the following is true:</p> <ul style="list-style-type: none"> <li>• Another application uses the port.</li> <li>• There is a firewall between the clients and the peer 5650 CPAM server.</li> </ul> <p>Default: 1100</p> |
| 5650 CPAM JNDI Peer Server Port                | <p>The TCP port on the peer 5650 CPAM server station that the GUI clients use for EJB JNDI messaging</p> <p>Alcatel-Lucent recommends that you accept the default value unless one of the following is true:</p> <ul style="list-style-type: none"> <li>• Another application uses the port.</li> <li>• There is a firewall between the clients and the peer 5650 CPAM server.</li> </ul> <p>Default: 1099</p>             |
| <b>Navigation from External Systems</b>        |                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Enable Navigation from External Systems        | <p>If selected, enables the forwarding of 5620 SAM client GUI activity to a 5620 NM</p> <p>Default: unselected</p>                                                                                                                                                                                                                                                                                                         |
| TCP port for accepting GUI navigation requests | <p>The TCP port on this station that is to accept 5620 NM navigation requests</p> <p>The parameter is configurable when the Enable Navigation from External Systems parameter is selected.</p> <p>Default: —</p>                                                                                                                                                                                                           |
| <b>XML Output Directory</b>                    |                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Unlabeled field                                | <p>The directory that is to contain the output of OSSl file export operations</p> <p>Default: /opt/5620sam/server/xml_output</p>                                                                                                                                                                                                                                                                                           |
| <b>Installation Complete</b>                   |                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Start the 5650 CPAM Server                     | <p>If selected, specifies that the 5650 CPAM server is to start automatically after the installation</p> <p>Default: unselected</p>                                                                                                                                                                                                                                                                                        |

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## E.2 5650 CPAM upgrade parameters

Table E-3 lists and describes the parameters that are configurable during a standalone 5650 CPAM server upgrade. Table E-4 lists and describes the parameters that are configurable for each 5650 CPAM server during a redundant upgrade. The parameters are grouped by installer panel in the order that the panels are displayed.



**Note —** Unless stated, the default value for a parameter is the value specified during the previous upgrade or installation.

Table E-3 Standalone 5650 CPAM server upgrade parameters

| Panel and parameters                                           | Description                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Software License Agreement</b>                              |                                                                                                                                                                                                                                                                                                                                                                                                                      |
| I accept the terms of the License Agreement                    | You accept the license terms and conditions. You must select this parameter before you can proceed to the next panel.                                                                                                                                                                                                                                                                                                |
| I do NOT accept the terms of the License Agreement (default)   | You do not accept the license terms and conditions. You cannot proceed to the next panel when this parameter is selected.                                                                                                                                                                                                                                                                                            |
| <b>Choose Installation Type</b>                                |                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Main Server Installation (default)                             | Installs the 5620 SAM main server software                                                                                                                                                                                                                                                                                                                                                                           |
| Main Server Configuration                                      | Configures the 5620 SAM main server software                                                                                                                                                                                                                                                                                                                                                                         |
| Auxiliary Server Installation                                  | Installs the 5620 SAM auxiliary server software                                                                                                                                                                                                                                                                                                                                                                      |
| Auxiliary Server Configuration                                 | Configures the 5620 SAM auxiliary server software                                                                                                                                                                                                                                                                                                                                                                    |
| CPAM Server Installation                                       | Installs the 5650 CPAM server software<br>You must choose this option.                                                                                                                                                                                                                                                                                                                                               |
| CPAM Server Configuration                                      | Configures the 5650 CPAM server software                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Specify the Base Directory for 5650 CPAM Server Files</b>   |                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Unlabeled field                                                | The directory in which the 5650 CPAM server files are installed                                                                                                                                                                                                                                                                                                                                                      |
| <b>User Documentation</b>                                      |                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Install User Documentation at Central Location Below (default) | If selected, specifies that the user documentation is to be installed in the central location that you enter in the unlabeled field on the panel                                                                                                                                                                                                                                                                     |
| Install User Documentation to Client File System               | If selected, specifies that the user documentation is to be installed on the local file system of each GUI client                                                                                                                                                                                                                                                                                                    |
| Unlabeled field                                                | If Install User Documentation at Central Location Below is selected:<br>An absolute file path or URL that is accessible to the GUI clients; if the location is a URL and NAT is used, the URL must contain a public IP address<br>If Install User Documentation to Client File System is selected:<br>A path on the client file system that is relative to the nms directory under the client installation directory |
| <b>License Information for 5650 CPAM Server</b>                |                                                                                                                                                                                                                                                                                                                                                                                                                      |
| License Key                                                    | The 5650 CPAM license key value, which is in the following format:<br>XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX<br>You must include the dashes in the license key value that you enter.                                                                                                                                                                                                                        |
| <b>Additional Server Configuration</b>                         |                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Redundancy Supported                                           | If selected, specifies that the 5650 CPAM system is deployed in a redundant configuration<br>You must leave this parameter unselected.                                                                                                                                                                                                                                                                               |
| Auxiliary Server Supported                                     | If selected, specifies that the 5650 CPAM deployment includes one or more auxiliary servers                                                                                                                                                                                                                                                                                                                          |
| Client Delegate Server Supported                               | If selected, specifies that the 5650 CPAM deployment includes one or more client delegate servers                                                                                                                                                                                                                                                                                                                    |
| <b>Database Configuration</b>                                  |                                                                                                                                                                                                                                                                                                                                                                                                                      |

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| Panel and parameters                                   | Description                                                                                                                                                                                                                                                                                                                                                 |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Database Server IP Address                             | The IP address that the 5650 CPAM server uses to reach the database station                                                                                                                                                                                                                                                                                 |
| Database Server Port                                   | The TCP port on the database station that is to receive communication from the 5650 CPAM server                                                                                                                                                                                                                                                             |
| Database Instance Name                                 | The name that the Oracle software associates with the database processes                                                                                                                                                                                                                                                                                    |
| Database User Name                                     | The database username                                                                                                                                                                                                                                                                                                                                       |
| Database User Password                                 | The database password                                                                                                                                                                                                                                                                                                                                       |
| Database Proxy Port                                    | The TCP port on the database station that the 5650 CPAM server is to use for redundancy communication, such as the initiation of a database failover or notification of a server activity switch                                                                                                                                                            |
| <b>CPAM Server Configuration for Auxiliary Servers</b> |                                                                                                                                                                                                                                                                                                                                                             |
| NAT (network address translation) Used                 | If selected, specifies that NAT is used between the 5650 CPAM server and the auxiliary servers                                                                                                                                                                                                                                                              |
| Private IP (accessible only by this server)            | The IP address that the NAT router uses to reach the 5650 CPAM server<br>The parameter is configurable when the NAT (network address translation) Used parameter is selected.                                                                                                                                                                               |
| Public IP (accessible to auxiliary)                    | The IP address that the auxiliary servers must use to reach the 5650 CPAM server                                                                                                                                                                                                                                                                            |
| Server port                                            | The TCP port on this station that the auxiliary servers must use to reach the 5650 CPAM server                                                                                                                                                                                                                                                              |
| <b>CPAM Server Address Configuration for Clients</b>   |                                                                                                                                                                                                                                                                                                                                                             |
| Server Domain Name                                     | The unique identifier of the 5620 SAM/5650 CPAM server cluster                                                                                                                                                                                                                                                                                              |
| Use Hostname for Communication                         | If selected, specifies that the GUI clients, OSS clients, and auxiliary servers use a hostname, rather than an IP address, to reach the 5650 CPAM server                                                                                                                                                                                                    |
| NAT (network address translation) Used                 | If selected, specifies that NAT is used between the 5650 CPAM server and the GUI clients, OSS clients, and auxiliary servers                                                                                                                                                                                                                                |
| Private IP (accessible only by this server)            | The IP address that the NAT router uses to reach the 5650 CPAM server<br>The parameter is displayed and configurable when the NAT (network address translation) Used parameter is selected.                                                                                                                                                                 |
| Public Hostname (accessible to clients)                | The hostname that the GUI clients, OSS clients, and auxiliary servers must use to reach the 5650 CPAM server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter is selected.                                                                                                                                  |
| Public IP (accessible to clients)                      | The IP address that the GUI clients, OSS clients, and auxiliary servers must use to reach the 5650 CPAM server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter is unselected.                                                                                                                              |
| EJB JNDI Server port                                   | The TCP port on this station that the GUI clients are to use for EJB JNDI messaging<br>Alcatel-Lucent recommends that you accept the default value unless one of the following is true: <ul style="list-style-type: none"> <li>• Another application uses the port.</li> <li>• There is a firewall between the clients and the 5650 CPAM server.</li> </ul> |
| EJB JMS Server port                                    | The TCP port on this station that the GUI clients are to use for EJB JMS messaging<br>Alcatel-Lucent recommends that you accept the default value unless one of the following is true: <ul style="list-style-type: none"> <li>• Another application uses the port.</li> <li>• There is a firewall between the clients and the 5650 CPAM server.</li> </ul>  |

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| Panel and parameters                           | Description                                                                                                                                                                         |
|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Navigation from External Systems</b>        |                                                                                                                                                                                     |
| Enable Navigation from External Systems        | If selected, enables the forwarding of 5620 SAM client GUI activity to a 5620 NM                                                                                                    |
| TCP port for accepting GUI navigation requests | The TCP port on this station that is to accept 5620 NM navigation requests<br>The parameter is configurable when the Enable Navigation from External Systems parameter is selected. |
| <b>XML Output Directory</b>                    |                                                                                                                                                                                     |
| Unlabeled field                                | The directory that is to contain the output of OSSl file export operations                                                                                                          |
| <b>Installation Complete</b>                   |                                                                                                                                                                                     |
| Start the 5650 CPAM Server                     | If selected, specifies that the 5650 CPAM server is to start automatically after the upgrade<br>Default: unselected                                                                 |

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Table E-4 Redundant 5650 CPAM server installation parameters

| Panel and parameters                                           | Description                                                                                                                                      |
|----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Software License Agreement</b>                              |                                                                                                                                                  |
| I accept the terms of the License Agreement                    | You accept the license terms and conditions. You must select this parameter before you can proceed to the next panel.                            |
| I do NOT accept the terms of the License Agreement (default)   | You do not accept the license terms and conditions. You cannot proceed to the next panel when this parameter is selected.                        |
| <b>Choose Installation Type</b>                                |                                                                                                                                                  |
| Main Server Installation (default)                             | Installs the 5620 SAM main server software                                                                                                       |
| Main Server Configuration                                      | Configures the 5620 SAM main server software                                                                                                     |
| Auxiliary Server Installation                                  | Installs the 5620 SAM auxiliary server software                                                                                                  |
| Auxiliary Server Configuration                                 | Configures the 5620 SAM auxiliary server software                                                                                                |
| CPAM Server Installation                                       | Installs the 5650 CPAM server software<br>You must choose this option.                                                                           |
| CPAM Server Configuration                                      | Configures the 5650 CPAM server software                                                                                                         |
| <b>Specify the Base Directory for 5650 CPAM Server Files</b>   |                                                                                                                                                  |
| Unlabeled field                                                | The directory in which the 5650 CPAM server files are installed                                                                                  |
| <b>User Documentation</b>                                      |                                                                                                                                                  |
| Install User Documentation at Central Location Below (default) | If selected, specifies that the user documentation is to be installed in the central location that you enter in the unlabeled field on the panel |
| Install User Documentation to Client File System               | If selected, specifies that the user documentation is to be installed on the local file system of each GUI client                                |

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| Panel and parameters                                   | Description                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Unlabeled field                                        | <p>If Install User Documentation at Central Location Below is selected:<br/>An absolute file path or URL that is accessible to the GUI clients; if the location is a URL and NAT is used, the URL must contain a public IP address</p> <p>If Install User Documentation to Client File System is selected:<br/>A path on the client file system that is relative to the nms directory under the client installation directory</p> |
| <b>License Information for 5650 CPAM Server</b>        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| License Key                                            | <p>The 5650 CPAM license key value, which is in the following format:<br/>XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX</p> <p>You must include the dashes in the license key value that you enter.</p>                                                                                                                                                                                                                         |
| <b>Additional Server Configuration</b>                 |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Redundancy Supported                                   | <p>If selected, specifies that the 5650 CPAM system is deployed in a redundant configuration</p> <p>You must select this parameter.</p>                                                                                                                                                                                                                                                                                           |
| Auxiliary Server Supported                             | If selected, specifies that the 5650 CPAM deployment includes one or more auxiliary servers                                                                                                                                                                                                                                                                                                                                       |
| Client Delegate Server Supported                       | If selected, specifies that the 5650 CPAM deployment includes one or more client delegate servers                                                                                                                                                                                                                                                                                                                                 |
| <b>Primary Database Configuration</b>                  |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Primary Database Server IP Address                     | The IP address that this 5650 CPAM server must use to reach the primary database station                                                                                                                                                                                                                                                                                                                                          |
| Primary Database Server Port                           | The TCP port on the primary database station that is to receive communication from this 5650 CPAM server                                                                                                                                                                                                                                                                                                                          |
| Primary Database Instance Name                         | The name that the Oracle software associates with the database processes on the primary database station                                                                                                                                                                                                                                                                                                                          |
| Database User Name                                     | The database username                                                                                                                                                                                                                                                                                                                                                                                                             |
| Database User Password                                 | The database password                                                                                                                                                                                                                                                                                                                                                                                                             |
| Primary Database Proxy Port                            | The TCP port on the primary database station that this 5650 CPAM server is to use for redundancy communication, such as the initiation of a database failover or notification of a server activity switch                                                                                                                                                                                                                         |
| <b>Standby Database Configuration</b>                  |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Database Server IP Address                             | The IP address that this 5650 CPAM server must use to reach the standby database station                                                                                                                                                                                                                                                                                                                                          |
| Database Instance Name                                 | The name that the Oracle software associates with the database processes on the standby database station                                                                                                                                                                                                                                                                                                                          |
| Database Proxy Port                                    | The TCP port on the standby database station that this 5650 CPAM server is to use for redundancy communication, such as the initiation of a database failover or notification of a server activity switch                                                                                                                                                                                                                         |
| <b>CPAM Server Configuration for Auxiliary Servers</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| NAT (network address translation) Used                 | If selected, specifies that NAT is used between this 5650 CPAM server and the auxiliary servers                                                                                                                                                                                                                                                                                                                                   |
| Private IP (accessible only by this server)            | <p>The IP address that the NAT router uses to reach this station</p> <p>The parameter is configurable when the NAT (network address translation) Used parameter is selected.</p>                                                                                                                                                                                                                                                  |
| Public IP (accessible to auxiliary)                    | The IP address that the auxiliary servers must use to reach this 5650 CPAM server                                                                                                                                                                                                                                                                                                                                                 |

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| Panel and parameters                                 | Description                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Server port                                          | The TCP port on this station that the auxiliary servers must use to reach this 5650 CPAM server                                                                                                                                                                                                                                                                       |
| <b>CPAM Server Address Configuration for Clients</b> |                                                                                                                                                                                                                                                                                                                                                                       |
| Server Domain Name                                   | The unique identifier of the 5620 SAM/5650 CPAM server cluster                                                                                                                                                                                                                                                                                                        |
| Use Hostname for Communication                       | If selected, specifies that the GUI clients, OSS clients, and auxiliary servers use a hostname, rather than an IP address, to reach this 5650 CPAM server                                                                                                                                                                                                             |
| NAT (network address translation) Used               | If selected, specifies that NAT is used between this 5650 CPAM server and the GUI clients, OSS clients, and auxiliary servers                                                                                                                                                                                                                                         |
| Private IP (accessible only by this server)          | The IP address that the NAT router uses to reach this station<br>The parameter is displayed and configurable when the NAT (network address translation) Used parameter is selected.                                                                                                                                                                                   |
| Public Hostname (accessible to clients)              | The hostname that the GUI clients, OSS clients, and auxiliary servers must use to reach this 5650 CPAM server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter is selected.                                                                                                                                           |
| Public IP (accessible to clients)                    | The IP address that the GUI clients, OSS clients, and auxiliary servers must use to reach this 5650 CPAM server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter is unselected.                                                                                                                                       |
| EJB JNDI Server port                                 | The TCP port on this station that the GUI clients are to use for EJB JMS messaging<br>Alcatel-Lucent recommends that you accept the default value unless one of the following is true: <ul style="list-style-type: none"> <li>• Another application uses the port.</li> <li>• There is a firewall between the clients and this 5650 CPAM server.</li> </ul>           |
| EJB JMS Server port                                  | The TCP port on this station that the GUI clients are to use for EJB JMS messaging<br>Alcatel-Lucent recommends that you accept the default value unless one of the following is true: <ul style="list-style-type: none"> <li>• Another application uses the port.</li> <li>• There is a firewall between the clients and this 5650 CPAM server.</li> </ul>           |
| <b>CPAM Server Address Configuration</b>             |                                                                                                                                                                                                                                                                                                                                                                       |
| Public IP (visible to peer server)                   | The IP address that the peer 5650 CPAM server must use to reach this 5650 CPAM server                                                                                                                                                                                                                                                                                 |
| High Available JNDI Port                             | The TCP port on this station that the peer 5650 CPAM server is to use for EJB JNDI messaging<br>Alcatel-Lucent recommends that you accept the default value unless one of the following is true: <ul style="list-style-type: none"> <li>• Another application uses the port.</li> <li>• There is a firewall between the clients and this 5650 CPAM server.</li> </ul> |
| TCP Port Cluster Number                              | The TCP port on this station that is used to communicate with the other 5620 SAM/5650 CPAM server cluster members                                                                                                                                                                                                                                                     |
| NAT (network address translation) Used               | If selected, specifies that NAT is used between this 5650 CPAM server and the peer 5650 CPAM server                                                                                                                                                                                                                                                                   |
| Private IP (accessible only by this server)          | The IP address that the NAT router uses to reach this station<br>The parameter is displayed and configurable when the NAT (network address translation) Used parameter is selected.                                                                                                                                                                                   |
| <b>Peer CPAM Server Configurations</b>               |                                                                                                                                                                                                                                                                                                                                                                       |
| Peer Server IP Address                               | The IP address that this 5650 CPAM server must use to reach the peer 5650 CPAM server                                                                                                                                                                                                                                                                                 |

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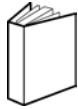
| Panel and parameters                           | Description                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Peer Server Trap Log Id                        | The SNMP trap log ID that is associated with the peer 5650 CPAM server                                                                                                                                                                                                                                                                                                                 |
| Peer Server SNMP Trap Receiving IP Address     | The IP address that the devices in the managed network must use to reach the peer 5650 CPAM server                                                                                                                                                                                                                                                                                     |
| Peer Server SNMP Trap Receiving Port           | The TCP port on the peer 5650 CPAM server station that the devices in the managed network must use to reach the peer 5650 CPAM server                                                                                                                                                                                                                                                  |
| Peer Server TCP Port Cluster Number            | The TCP port on the peer 5650 CPAM server station that is used to communicate with the other 5620 SAM/5650 CPAM server cluster members                                                                                                                                                                                                                                                 |
| <b>Peer CPAM Server Configurations (cont.)</b> |                                                                                                                                                                                                                                                                                                                                                                                        |
| 5620 SAM Peer Server Hostname                  | The hostname that the GUI clients, OSS clients, and auxiliary servers must use to reach the peer 5650 CPAM server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter in the CPAM Server Address Configuration for Clients panel is selected.                                                                                             |
| 5650 CPAM Peer Server IP Address               | The IP address that the GUI clients, OSS clients, and auxiliary servers must use to reach the peer 5650 CPAM server<br>The parameter is displayed and configurable when the Use Hostname for Communication parameter in the CPAM Server Address Configuration for Clients panel is unselected.                                                                                         |
| 5650 CPAM JNDI High Available Peer Server Port | The TCP port on the peer 5650 CPAM server station that this 5650 CPAM server is to use for EJB JNDI messaging<br>Alcatel-Lucent recommends that you accept the default value unless one of the following is true: <ul style="list-style-type: none"> <li>Another application uses the port.</li> <li>There is a firewall between the clients and the peer 5650 CPAM server.</li> </ul> |
| 5650 CPAM JNDI Peer Server Port                | The TCP port on the peer 5650 CPAM server station that the GUI clients use for EJB JNDI messaging<br>Alcatel-Lucent recommends that you accept the default value unless one of the following is true: <ul style="list-style-type: none"> <li>Another application uses the port.</li> <li>There is a firewall between the clients and the peer 5650 CPAM server.</li> </ul>             |
| <b>Navigation from External Systems</b>        |                                                                                                                                                                                                                                                                                                                                                                                        |
| Enable Navigation from External Systems        | If selected, enables the forwarding of 5620 SAM client GUI activity to a 5620 NM                                                                                                                                                                                                                                                                                                       |
| TCP port for accepting GUI navigation requests | The TCP port on this station that is to accept 5620 NM navigation requests<br>The parameter is configurable when the Enable Navigation from External Systems parameter is selected.                                                                                                                                                                                                    |
| <b>XML Output Directory</b>                    |                                                                                                                                                                                                                                                                                                                                                                                        |
| Unlabeled field                                | The directory that is to contain the output of OSS file export operations                                                                                                                                                                                                                                                                                                              |
| <b>Installation Complete</b>                   |                                                                                                                                                                                                                                                                                                                                                                                        |
| Start the 5650 CPAM Server                     | If selected, specifies that the 5650 CPAM server is to start automatically after the upgrade<br>Default: unselected                                                                                                                                                                                                                                                                    |

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# Customer documentation and product support



## Customer documentation

<http://www.alcatel-lucent.com/myaccess>

Product manuals and documentation updates are available at [alcatel-lucent.com](http://www.alcatel-lucent.com). If you are a new user and require access to this service, please contact your Alcatel-Lucent sales representative.



## Technical Support

<http://support.alcatel-lucent.com>



## Documentation feedback

[documentation.feedback@alcatel-lucent.com](mailto:documentation.feedback@alcatel-lucent.com)



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