

Alcatel 5620

SERVICE AWARE MANAGER | RELEASE 2.1

INSTALLATION AND UPGRADE GUIDE

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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

About this document

The *5620 SAM Installation and Upgrade Guide* provides user documentation to allow you to:

- plan pre-installations
- plan installations on Windows, Solaris, or Linux operating systems
- install the 5620 SAM software applications in standalone and redundant mode
- upgrading 5620 SAM software applications
- collocating 5620 SAM software applications
- install 5620 SAM integration network management software, for example the 5620 NM to interwork with the 5620 SAM

The *5620 SAM Installation and Upgrade Guide* is written in a task-based format. The chapters contain:

- necessary pre-configurations before installing the software
- menus, commands, and installation prompts used to complete the procedures

About related documentation

There are many documents that define the 5620 SAM and the managed devices.

- Contact your Alcatel support representative for more information about network sizing and recommended hardware configurations. Use the *5620 SAM Planning Guide* for more information about sizing.
- Use the *5620 SAM User Guide* for information about using the client GUI to perform network management functions, including the configurable parameters in the *5620 SAM Parameter Guide* to find definitions, ranges, dependencies, and defaults.
- Use the *Alcatel 5620 SAM-O OSS Interface Developer Guide* to use the XML OSS interface to create OSS applications, such as alarm monitoring and inventory controls.
- Use the *5620 SAM Troubleshooting Guide* to troubleshoot 5620 SAM-managed networks, services, applications and platforms.
- Use the *5620 SAM System Architecture Guide* to understand how the software components are designed.
- Use the *5620 SAM Routine Maintenance Procedures Guide* to help develop and schedule regular maintenance activities.
- See the index file in the User Documentation directory on the application DVD for additional documentation.

See the 7750 SR and 7450 ESS user documentation guides for more detailed information about specific CLI commands, device installation, and additional parameter information.

Conventions used in this guide

The following table lists the conventions that are used throughout the documentation.

Table 1: 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
↵	Press the Return key	↵
—	An em dash indicates there is no information.	—

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.

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 a service interruption.



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

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5620 SAM Installation and Upgrade Guide

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1 — Before you start installing the 5620 SAM

1.1 Before you start installing the 5620 SAM overview 1-2

1.1 Before you start installing the 5620 SAM overview

This chapter describes general information related to installing 5620 SAM software components, including a pre-installation checklist.

See chapter 3 for information about installation prompts. See chapter 2 for information about operating system notes.



Note — Network planning expertise is available from your Alcatel support representative. The guidelines and suggestions in this document are general in nature, and should be validated for network-specific applications and configurations. See the *5620 SAM Planning Guide* for more information about sizing platforms for 5620 SAM applications.

Pre-installation checklist

Ensure the following items are considered before installing 5620 SAM applications.

- Keep copies of previous client and server configuration files, for example, the `nms-client.xml` and `nms-server.xml` files, in a safe place.
- Ensure 3 Gb of free space in `/tmp` is available for the 5620 SAM installer software.
- A license key is required from Alcatel to run the 5620 SAM software applications. Ensure that your application key enables the functions you want to perform, and that the key enables the number of network objects that you want to manage.

2 — 5620 SAM considerations for Windows, Solaris, and Linux operating systems

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2.1 5620 SAM operating systems overview

Before you install the 5620 SAM applications, consider the following operating system specific information.

For all operating systems:

- PC and workstation hardware requirements meets appropriate guidelines, based on the recommendations in the *5620 SAM Planning Guide*, the Release Description, and appropriate release notice, available from your Alcatel support representative.
- Volume management or RAID configurations for the 5620 SAM may provide increased data availability and performance enhancements, depending on the specific configurations. Some configurations allow expansion of 5620 SAM database file systems to accommodate network growth. Contact your volume management or RAID vendor for more information.
- Configuration of DNS for name resolution on a 5620 SAM server does not interfere with the operation of the server.
- Changing default TCP or UDP port configurations during installation may impact firewall configurations. Ensure that you note changes to default port numbers, and make those ports available through firewalls. See the *5620 SAM Planning Guide* for more information about firewalls.

For Windows:

- PC running Windows 2000 Professional Edition, Windows 2003, or Windows XP.
- Load the TCP/IP stack if required.
- Windows PCs cannot be used in redundant configurations.
- Administrator privileges for database installations.

For Linux

- Linux can be used for client GUIs. Linux cannot be used as a server and database.
- Linux RedHat Enterprise WS 3.0 for the 5620 SAM clients.
- Ensure the latest patch clusters are installed for the appropriate release as identified in the appropriate release notice.

For Solaris:

- workstation using Solaris 9 with the latest patch cluster for the appropriate release as identified in the release notice.
- UNIX user has read-write permissions for all database directories, for example, root user.
- The user installing the 5620 SAM client must be the same user that logs on to the 5620 SAM client.

2.2 Troubleshooting 5620 SAM installations

When troubleshooting 5620 SAM installations, do the following:

1. Follow any installation prompts as recommended in the *5620 SAM Installation and Upgrade Guide* or in the README files provided as part of the installation forms.
2. Check the Support Documentation Service at www.alcatel.com for updates and recommendations.
3. Ensure that the platform meets the requirements in the release notice or the *5620 SAM Planning Guide* for the appropriate 5620 SAM application.
4. If the problem cannot be resolved, collect the following files and data for appropriate support escalation:
 - stderr and stdout console data for Solaris and Linux platforms
 - all log files in the tmp and *installation_location* directories or folders that start with 5620*.txt

3 — Installation for 5620 SAM applications

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3.1 5620 SAM installation overview

This chapter describes how to install the 5620 SAM software. Table 3-1 describes the 5620 SAM software applications.

Table 3-1 5620 SAM software applications

Application	Description/information
5620 SAM database	Stores network objects and configuration.
5620 SAM server	<ul style="list-style-type: none">• Mediates between the 5620 SAM database, 5620 SAM clients and the managed network.• Can support many 5620 SAM clients.• Only one server should be installed and pointed to the 5620 SAM database. You can install the server on the same PC or workstation as the database, or on a separate PC or workstation.
5620 SAM client	<ul style="list-style-type: none">• Provides a GUI to discover, configure, and manage the network.• Only one client should be installed per platform.

See the *5620 SAM Planning Guide* for more information about disk layout recommendations and PC or workstation sizing requirements.

Redundancy overview

See the *5620 SAM User Guide* for more information about activity switches, failovers, and switchovers in redundant network management LANs. See the *5620 SAM Planning Guide* for more information about workstation sizings and descriptions of redundant system requirements.

Consider the following before you configure redundancy on an active and standby database or server:

- Redundancy is only supported on Solaris workstations. Ensure that the same operating system and version of the 5620 SAM software are installed on the active and standby database and server workstations.
- You can install the server and database on the same workstation, or different workstations. For example, one workstation can contain the active server and database, and another workstation can contain the standby server and database.
- The active and standby databases must be on different workstations.
- Ensure that the active and standby database directory structures are identical on both workstations.
- Propagation of database changes between the active and standby is performed by the Oracle data guard function.
- Configuration of the active and standby databases and servers is performed using the DBconfig or ClientServerInstall installers.
- When redundant databases are configured, the server must be reconfigured to be aware of the new configuration.
- You must configure the primary database before you configure the standby database.

3.2 Workflow to install the 5620 SAM software

- 1** Configure a network of network management domain platforms.
- 2** If required, load the PC to be used for the 5620 SAM database with the TCP/IP stack, if required. See the appropriate Windows documentation for more information.
- 3** Establish an Ethernet connection from the network management domain to the managed network devices. This connection must be from the platform on which you install the 5620 SAM server.
- 4** Insert the 5620 SAM applications DVD-ROM in the DVD drive.
- 5** Prior to 5620 SAM database installation on a Solaris workstation, run the Oracle10g_PreInstall.sh script to create and configure the Oracle user and to set /etc/system values. Reboot the workstation.
- 6** Install in standalone or redundant mode.

- a** To install in standalone mode:
 - i** Install the 5620 SAM database in standalone mode. The database installation also installs Oracle, if required. See Procedure 3-1.
 - ii** Install a 5620 SAM server in standalone mode. You can install the server on the same platform as the database for Solaris installations, or on a different platform for PC or Solaris installations. See Procedure 3-8.
 - iii** Configure HTTP/HTTPS for 5620 SAM-O, if required. See Procedure 3-9.
 - iv** Install one or more 5620 SAM clients on separate PCs or workstations. You can install one client per PC or workstation. See Procedure 3-11.
- b** Redundancy is only supported on Solaris workstations. Ensure that the same operating system and version of the 5620 SAM software are installed on the active and standby database and server workstations.

For initial installations of redundant components:

- i** Install the primary (active) 5620 SAM database. The database installation also installs Oracle, if required. See Procedure 3-2.
- ii** Install the primary (active) 5620 SAM server. You can install the server on the same workstation as the active database, or on a different workstation. See Procedure 3-5.
- iii** Install the standby 5620 SAM database on another workstation, using the same directory structure as used for the primary database. The database installation also installs Oracle, if required. Ensure the primary database is running before you install the standby database. See Procedure 3-2.
- iv** Install the standby 5620 SAM server. You can install the server on the same workstation as the standby database, or on a different workstation. See Procedure 3-5.

- v Configure HTTP/HTTPS for 5620 SAM-O, if required. See Procedure 3-9.
 - vi Install one or more 5620 SAM clients on separate PCs or workstations. You can install one client per PC or workstation. See Procedure 3-11.
- c** For the addition of redundancy to existing standalone components:
- i Add redundancy to the standalone database. See Procedure 3-6.
 - ii Create a standby database. See Procedure 3-2.
 - iii Add redundancy to the standalone server and create a standby server. See Procedure 3-10.
 - iv Configure HTTP/HTTPS for 5620 SAM-O, if required. See Procedure 3-9.
 - v Reconfigure clients for server redundancy. See Procedure 3-12.
- d** Restore standby redundancy following a failover. See Procedure 3-7.
- 7** Modify the settings of an installation, as required. See Procedures 3-14 and 3-15.

3.3 5620 SAM installation procedures list

Table 3-2 lists the procedures to install the 5620 SAM applications.

Table 3-2 5620 SAM installation procedures

Procedure	Purpose
Database and redundant database/server procedures	
To install the 5620 SAM database in standalone mode	To install a single standalone 5620 SAM database
To install the 5620 SAM database in redundant mode	To install a primary (active) and standby 5620 SAM database in a redundant pair

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Procedure	Purpose
To restore a standalone or primary 5620 SAM database	To restore a backup version of the 5620 SAM database
To back up a standalone or primary 5620 SAM database	To back up the standalone or primary database using the DBconfig installer
To install a primary and standby 5620 SAM database and server	Install active and standby databases and servers.
To add redundancy to a standalone database and create a primary database	To modify an existing standalone database to become the primary database in a redundant configuration.
To restore standby database redundancy following a failover	To restore database redundancy after a database failover
Server procedures	
To install the 5620 SAM server in standalone or redundant mode	To install and start the 5620 SAM server in standalone or redundant mode
To configure the 5620 SAM server for HTTP or HTTPS	To configure the 5620 SAM server to create an HTTP or HTTPS server that can be used by the 5620 SAM-O OSS Interface.
To add redundancy to a standalone server to create an active server and create a standby server	To modify an existing standalone server to become the active server in a redundant configuration.
Client procedures	
To install the 5620 SAM client	To install and start the 5620 SAM client
To modify clients to handle redundant server configuration	To modify existing client installations to connect to redundant servers.
Modifications of installations procedures	
To re-install the 5620 SAM client using the silent mode	To re-install using the silent mode.
To modify the 5620 SAM server	To modify 5620 SAM server configurations without re-installing the software
To modify the 5620 SAM client	To modify 5620 SAM client configurations without re-installing the software

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3.4 5620 SAM database and database/server redundancy installation procedures

This section provides the procedures to:

- install standalone databases
- install redundant databases
- restore and back up databases in standalone or redundant mode
- configure or install primary and standby databases and servers

Procedure 3-1 To install the 5620 SAM database in standalone mode

The creation of the database is a resource-intensive process. You need administrator privileges on Windows PCs, and root access and Oracle user privileges on Solaris workstations, to perform this procedure. Ensure that you keep reference to all user directories and passwords configured using the DBconfig installer.

- 1 Log in to the platform on which you want to install the 5620 SAM database.
- 2 Insert the 5620 SAM application DVD.
- 3 When installing:
 - a On a Windows PC, go to step 4.
 - b On a Solaris workstation:
 - i Log in to the Solaris workstation as root.
 - ii From the application DVD, go to the Solaris directory.
 - iii Run the Oracle10g_PreInstall.sh script.
 - iv When prompted, enter oracle as the user name.
 - v When prompted to Enter the Oracle user home directory, enter the directory where you want the oracle user home account to be located, for example, /opt/5620sam/oracle.
 - vi When the script finished, reboot the workstation.

- vii Log in again, and go to step 4.
- 4 Launch the installer for:
 - a Windows XP and 2000 installations, go to the Windows directory on the DVD and double-click on the DBConfig.exe file.
 - b Windows 2003 installations:
 - i Go to the Windows directory of the DVD and right-click on the DBConfig.exe file.
 - ii Click on the Compatibility tab button.
 - iii Select the compatibility check box.
 - iv Choose Windows XP for the compatibility mode.
 - c Solaris installations:
 - i Log in as the oracle user.
 - ii From the application DVD, go to the Solaris directory.
 - iii Run from the DVD:

```
./DBConfig.bin ↵
```

The 5620 SAM database configurator is started, and a series of forms with installation parameters appears. Click on the Next button.

- 5 Click on the Next button. The 5620 SAM Software License Agreement appears.
- 6 Choose I accept the terms of the License Agreement, and click on the Next button. You must accept the license agreement.
- 7 From the Choose Installation Type form, choose the Install and Configure a Standalone Database option.

To upgrade a database, see chapter 4. See Procedure 3-3 for more information about restoring a database from a backup version. See Procedure 3-4 for more information about backing up a database.
- 8 Specify whether you are installing the Oracle software.



Note — You must install the Oracle software for new installations.

- a** If you are not installing Oracle software, Click on the Do not install Oracle Software button and go to step 9.
- b** Install the Oracle software.



Note — Oracle software installation is resource- and time-intensive.

- i** Select the Install Oracle Software button.
- ii** Enter a directory name and path for the base directory for 5620 SAM database files. For example, C:\5620sam\samdb or /opt/5620sam/samdb.

The directory is created by the 5620 SAM database configurator, if it does not already exist.

- iii** Click on the Install button.
- iv** If Oracle software is not installed, specify the base directory for Oracle files. For example, C:\5620sam\oracle or /opt/5620SAM/oracle.

On Solaris platforms, you need read/write/execute permissions in the parent directory when you create a name and path.
- v** On Solaris installations, run the Oracle pre-installation orainstRoot.sh script as user root from the indicated directory.
- vi** Click on the Start Oracle Installation button. The Oracle installation starts.
- vii** A success message appears. Respond to the prompts, if required.

- viii** Click on the Next button.

- ix Click on the Start Oracle Patch Installation button.
 - x A success message appears in the installer window. Respond to the prompts, if required.
 - xi On Solaris installations, run the Oracle post-installation root.sh script as user root from the indicated directory. Select the defaults or enter the path to the local bin directory.
 - xii Go to step 11. You do not have to configure the first prompt, related to the base directory for Oracle files.
- 9 Configure the 5620 SAM installation root directory. Table 3-3 describes the parameter.

Table 3-3 5620 SAM installation root directory

Parameter	Instructions
Specify the Base Directory for 5620 SAM Database Files	
Location for database base directory	<p>Enter a directory name and path for the installation directory of all 5620 SAM-related database files. For example, C:\5620sam\samdb or /opt/5620sam/samdb.</p> <p>Click on the Install button.</p> <p>The installation root directory will be created by the 5620 SAM database configurator, if it does not already exist.</p>

- 10 Click on the Install button.
- 11 Follow the sequence of steps required to complete the installation. Click on the Next button to perform the next installation step.



Note — During installation on Solaris, you may be prompted to run scripts as root. Run the specified shell scripts in another window and click on the Continue button after the scripts are completed.

Table 3-4 describes the installation parameters.

Table 3-4 5620 SAM standalone database installation parameters

Parameter	Instructions
Specify the Base Directory for Oracle Files	
Locate Oracle files Base Directory	Enter the Oracle base directory where the Oracle files are located. For example, C:\5620sam\oracle or /opt/5620sam/oracle. If you installed Oracle as described in step 8, the parameter does not appear. On Solaris platforms, you need read/write/execute permissions in the parent directory when you create a name and path.
General Database Configuration Information	
Database Server IP Address	Enter the IP address of the platform on which you are installing the 5620 SAM database.
Database Name	Enter a name for the 5620 SAM database. The recommended name is samdb. The database name must: <ul style="list-style-type: none"> • have up to 8 characters • contain only characters encoded in ASCII • use a letter as the first character • not be restricted by Oracle. See the appropriate Oracle documentation for a list of restricted database names The database is created in Oracle by the 5620 SAM.
Instance Name	Enter the instance name used by Oracle to name the processes and the memory allocated to the processes. In cluster environments, there can be multiple instance names. In non-cluster environments, the instance name can be the same as the database name. The recommended name is samdb. The instance name must: <ul style="list-style-type: none"> • have up to 11 characters • contain only characters encoded in ASCII • use a letter as the first character
User name	Enter a user name. For example, samuser.
User password and Confirm user password	Enter a password up to 8 alphanumeric characters. For example, PaSWoRd. Oracle user passwords can only be changed during installation.

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Parameter	Instructions
Enable Online Database Backup	<p>Select the check mark box if you want to be able to perform database backups and restores using the 5620 SAM client GUI database manager function. When you enable online database backup, archive logging is enabled.</p> <p>Online database backups generate additional database archive files and additional database space is required. These archive files are removed after a database backup is performed. Alcatel recommends that you:</p> <ul style="list-style-type: none"> • create a separate partition for database backups • create a database directory equal to at least five times the expected database size • ensure that the backup disk or partition is sized for growth, depending on network considerations <p>See the <i>5620 SAM Planning Guide</i> for more information about disk sizing. For example, if the database holds 1.5 Gb of data, the backup directory and disk size should be at least 7.5 Gb of data. The additional disk space is required because of the round-robin approach to database backups. See the <i>5620 SAM User Guide</i> for more information about performing database backups.</p> <p>Specific online database backup details are configured using the server ClientServerInstall executable.</p>
Archive Log Destination	
Archive log destination	<p>You can configure the archive log destination when online database backup is enabled. Enter a directory on a separate partition where the database archive logs are stored. For example C:\5620sam\samdb\archivelog or /opt/5620sam/samdb/archivelog. This directory should be secure and regularly backed up to prevent corruption or loss of data.</p> <p>Check the directory regularly to ensure that there is enough disk space available to continue storing database backup files. All database changes are stored in the directory until a backup of the database is performed. Alcatel recommends performing regular backups to avoid filling the directory.</p>
Data Layout Options	

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Parameter	Instructions
Data layout option	<p>Perform one of the following to determine Table Space creation:</p> <ul style="list-style-type: none"> • Choose the Single Table Space option to store all data in one tablespace. Alcatel recommends this configuration for most installations. • Choose the Multiple Table Space Stats and Alarm drives option. The 5620 SAM supports the ability to span the Oracle database tablespaces over multiple file systems. However, this spanning is only an advantage when the file systems use different hard disk controllers. In most setups, use the Single Table Space option. To use multiple file systems for tablespaces, contact your Alcatel support representative for more information. • Choose the Multiple Table Space option, assigning each TS to a drive option to customize all Oracle tablespaces that are created by the 5620 SAM.
Data File Directories	
Data file directories and Configure tablespaces	<ol style="list-style-type: none"> 1) Click on the Add button. 2) Create the tablespace directory. It is added to the directory name list. 3) Click on the Set As Default button. The tablespace directory should be the default directory. This places the directories in the same directory as the samdb database. For example, C:\5620sam\samdb\tablespace or /opt/5620sam/samdb/tablespace. 4) Click on the Next button. By default, all tablespaces are created in one tablespace directory.
Oracle SYS and SYSTEM Passwords	
Oracle SYS password and Oracle SYSTEM password	<p>Enter and confirm the Oracle SYS and SYSTEM passwords. For example, alcatel.</p> <p>The passwords are required to start the server and database.</p>
XML and CSV Dump Destinations	
XML and CSV Dump Destination	<p>Specify a directory where the database data output in XML and CSV formats can be stored. For example, C:\5620sam\samdb\xml_csv or /opt/5620sam/samdb/xml_csv.</p> <p>This data is generated by the 5620 SAM server in response to requests from an OSS or the client GUI.</p>
Apply the configuration files	
Apply configuration files	<p>Choose to apply the configuration scripts now.</p> <p>If you choose to apply scripts later, a window appears to indicate the directory in which the scripts have been saved. You must run the scripts manually from the directory.</p> <p>You need administrator privileges to run the scripts on a PC platform, and root user and Oracle user privileges on a Solaris workstation.</p>

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- 12 Click on the Start Process button to start the 5620 SAM database installation. Database creation progress is shown.

The installation may take 30 to 45 min. A message indicates when the installation is complete.

- 13 Click on the Done button to exit the installer application.
- 14 For Solaris platforms, run the root scripts to allow the automatic startup of some Oracle processes, such as Listener.
 - i Open a command or shell tool.
 - ii Navigate to the *installation_directory/config/database_name* directory, where *installation_directory* is the database installation directory, for example, /opt/oracle/samdb, and *database_name* is the database name, for example, samdb.
 - iii Run the `solaris_root.sh` for Solaris installations.
 - iv Close the command or shell tool.

Procedure 3-2 To install the 5620 SAM database in redundant mode

The creation of the databases is a resource-intensive process. Ensure that you keep reference to all user directories and passwords configured using the DBconfig installer.

You need root permissions and Oracle user privileges on Solaris to perform this procedure. Once the primary database is installed and configured, ensure it is running before you transfer and install the standby database.

- 1 Log in to the platform on which you want to install the 5620 SAM primary (active) or standby database.
- 2 Perform steps 2 to 6 in Procedure 3-1.
- 3 Choose Configure Primary /Standby Databases from the Choose Installation Type form. Click on the Next button.

To upgrade a database, see chapter 4. See Procedure 3-3 for more information about restoring a database from a backup version.

- 4 Specify whether you are installing the primary (active) or standby components of a redundant system. For initial installations, configure the primary before the standby.
- 5 Specify whether you are installing the Oracle software, as described in step 8 in Procedure 3-1.
- 6 Configure the 5620 SAM installation root directory. Table 3-5 describes the parameter.

Table 3-5 5620 SAM installation root directory

Parameter	Instructions
Specify the Base Directory for 5620 SAM Database Files	
Location for database base directory	<p>Enter a directory name and path for the installation directory of all 5620 SAM-related database files. For example, /opt/5620sam/samdb. The primary and standby databases must use the identical directory structure.</p> <p>Click on the Install button.</p> <p>The installation root directory is created by the 5620 SAM database configurator, if it does not already exist. Click on the create button to create the directory, if it does not exist.</p>

- 7 Click on the Install button.
- 8 Follow the sequence of steps required to complete the installation. Click on the Next button to perform the next installation step.



Note — During an installation on Solaris, you may be prompted to run scripts as root. Run the specified shell scripts in another window and click on the Continue button after the scripts are completed.

Table 3-6 5620 SAM redundant database installation parameters

Parameter	Instructions
Specify the Base Directory for Oracle Files	
Locate Oracle Files Base Directory	Enter the Oracle home directory where the Oracle files are located. For example, /opt/5620sam/oracle. The directory names and structures must match on the primary and standby databases. If you installed Oracle software, this parameter does not appear. You need read/write/execute permissions in the parent directory when you create a name and path.
Primary or Standby Database Configuration Info	
(Primary or Standby) Database Server IP Address	Enter the IP address of the workstation on which you are installing the 5620 SAM primary (active) or standby database.
(Primary or Standby) Database name	Enter a name for the 5620 SAM primary or standby database. The recommended name is samdb. You must use the same database name for the primary and standby database. The database name must: <ul style="list-style-type: none"> • have up to 8 characters • contain only characters encoded in ASCII • use a letter as the first character • not be restricted by Oracle. See the appropriate Oracle documentation for a list of restricted database names. The database is created in Oracle by the 5620 SAM.
(Primary or Standby) Instance Name	Enter the instance name used by Oracle to name the processes and the memory allocated to the processes on the primary and standby databases. The instance name must be unique on the primary and standby, for example, samdb1 for the primary and samdb2 for the standby. The instance name must: <ul style="list-style-type: none"> • have up to 11 characters • contain only characters encoded in ASCII • use a letter as the first character
(Primary or Standby) User name	Enter a user name on the primary and standby database. For example, samuser.
(Primary or Standby) User password and Confirm user password	Enter a password of up to 8 alphanumeric characters for the primary and standby database user. For example, PaSWoRd. Oracle user passwords can only be changed during installation.
Standby Oracle Home	For standby databases, specify the base directory containing the Oracle files. For example, /opt/5620sam/oracle. The directory must be the same on the primary and standby.

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Parameter	Instructions
Standby Archive Log Destination	For standby databases, specify the archive log directory, for example, /opt/5620sam/samdb/archivelog. This directory should be secure and regularly backed up to prevent corruption or loss of data.
Oracle SYS and SYSTEM Passwords	
Oracle SYS password and Oracle SYSTEM password	Enter and confirm the Oracle SYS and SYSTEM passwords. For example, alcatel. The passwords are required to start the server and database.
Database Proxy Port	
Database Proxy Port Number	Accept the default port number of 9002. This is the TCP port used by the server to send requests to the database for redundancy failovers and switchovers.
Archive Log Destination	
Archive log destination	You can configure the archive log destination when online database backup is enabled. Enter a directory on a separate partition where the database archive logs are stored. For example /opt/5620sam/samdb/archivelog. This directory should be secure and regularly backed up to prevent corruption or loss of data. Check the directory regularly to ensure that there is enough disk space available to continue storing database backup files. All database changes are stored in the directory until a backup of the database is performed. Alcatel recommends that you perform regular backups to avoid filling the directory.
XML and CSV Dump Destination	
XML and CSV Dump Destination	Specify a directory where the database data output in XML and CSV formats can be stored. For example, /opt/oracle/samdb/xml_csv. This data is generated by the 5620 SAM server in response to requests from an OSS or the client GUI.
Locate a Primary Backup Directory	
Directory Location	Creates a backup of the primary (active) database. This copy of the primary database is transferred to the standby workstation to create the standby database. For example, /opt/oracle/samdb/dbbackup.
Data Layout Option	

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Parameter	Instructions
Data layout option	<p>Perform one of the following to determine Table Space creation:</p> <ul style="list-style-type: none"> Choose the Single Table Space option to store all data in one tablespace. Alcatel recommends this configuration for most installations. Choose the Multiple Table Space Stats and Alarm drives option. The 5620 SAM supports the ability to span the Oracle database tablespaces over multiple file systems. However, this spanning is only an advantage when the file systems use different hard disk controllers. In most setups, use the Single Table Space option. To use multiple file systems for tablespaces, contact your Alcatel support representative for more information. Choose the Multiple Table Space option, assigning each TS to a drive option to customize all Oracle tablespaces that are created by the 5620 SAM.
Data File Directories	
Data file directories and Configure tablespaces	<ol style="list-style-type: none"> Click on the Add button. Create the tablespace directory. It is added to the directory name list. Click on the Set As Default button. The tablespace directory should be the default directory. This places the directories in the same directory as the samdb database. For example, /opt/5620sam/samdb/tablespace. Click on the Next button. By default, all tablespaces are created in one tablespace directory. Click on the OK button when all associations are complete.
Primary or Standby Database Info	
Configure the parameters for the standby database	You can configure the standby database information using similar forms and parameters, as was done for the primary. Enter the standby database information, but use a different database instance name and configure the standby-specific parameters.
Apply the configuration files	
Apply configuration files	<p>Choose to apply the configuration scripts now.</p> <p>If you choose to apply scripts later, a window appears to indicate the directory in which the scripts have been saved. You must run the scripts manually from the directory.</p> <p>You need administrator and Ora_DBA privileges to run the scripts on a Solaris platform.</p>

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9 Click on the Start Process button to start database configuration.

The installation may take 30 to 45 min.

10 For:

a Solaris installations, go to step 11.

- b** For Windows installations, go to step 15.
- 11** Install the Oracle database as a UNIX daemon, as indicated. Run the necessary scripts shown in the installer window as root.
- 12** Click on the Next button.
- 13** Run the root scripts to allow the automatic startup of some Oracle processes, such as Listener.
 - i** Open a command or shell tool.
 - ii** Navigate to the *installation_directory/config/database_name* directory, where *installation_directory* is the database installation directory, for example, /opt/oracle/samdb, and *database_name* is the database name, for example, samdb.
 - iii** Run `solaris_root.sh`.
 - iv** Close the command or shell tool.
- 14** Click on the Next button.
- 15** Click on the Done button to exit the installer application once the database creation success message is displayed.
- 16** Ensure the primary database is running.
- 17** You can now configure the active 5620 SAM server, as indicated in Procedure 3-8. Once you have completed installation of the active server, complete this procedure to install the standby database, then install the standby server.
- 18** Copy the primary database backup file set from the primary database workstation to the standby database workstation. The backup file set for the database must be copied into the same directory structure on the standby workstation.
- 19** Start the DBconfig installer on the standby database workstation. Ensure that the user performing the installation has the same privileges on the standby as on the primary.
- 20** Click on the Next button. The 5620 SAM Software License Agreement appears.

- 21 Choose I accept the terms of the License Agreement, and click on the Next button. You must accept the license agreement.
 - 22 From the Choose Installation Type form, choose Configure Primary/Standby Databases. Click on the Next button.
 - 23 Choose the Standby Database Install option.
 - 24 Install Oracle software on the standby, if required.
 - 25 Configure the standby database information. Table 3-6 describes the parameter.
 - base directory for Oracle files
 - the location of the backup file set created from the primary database, and its location on the new standby database workstation
 - standby database information, for example, IP address, as configured for the primary database, and the unique instance name, for example, samdb2
 - primary database information to ensure correct redundancy operation
 - Database proxy port default of 9002
 - archive log destination, identical to the primary database
 - 26 Click on the Next button.
 - 27 Click on the Start Process button to start the 5620 SAM database installation.

The installation may take 30 to 45 min. A message indicates when the installation is complete.
 - 28 Run the root scripts to allow the automatic startup of some Oracle processes, such as Listener, as indicated in step 13.
 - 29 Click on the Done button to exit the installer application.
-

Procedure 3-3 To restore a standalone or primary 5620 SAM database

Ensure that the database and server are stopped before you restore a database. Ensure Oracle 10g is installed, you cannot restore from 9.X.X.X to 10g. When creating a backup, and then restoring the backup, both software versions must be identical.

- 1 Log in to the platform on which you want to restore the 5620 SAM database.
- 2 Perform steps 1 to 7 in Procedure 3-1.
- 3 Choose Backup or Restore a Database as the Installation Type. See Procedure 3-4 for information about database backups.
- 4 Click on the Restore a Database from backup button.
- 5 Specify whether to first install Oracle 10G software. See Procedure 3-1 for more information about installing Oracle software. When you perform a restore, **Alcatel** recommends that you do not install Oracle.
- 6 Choose the location for the 5620 SAM database installation directory, as configured in Procedure 3-1 or 3-2.
- 7 Locate the Oracle home directory.
- 8 Locate the backup directory, containing the database backup set created in Procedure 3-4 or using the database manager form on the client GUI.

The path to the backup directory on the restoration workstation must match the backup directory on the workstation where the backup is made.

- 9 Specify whether to create a copy of the backed up database set before restoring. When the database backup is restored, the backups are modified and cannot be reused.

- 10 Specify the following database information:
 - database IP address (workstation IP address)
 - database name (for example, samdb)
 - database instance name, which must be unique if the database restore is performed on the same workstation where the original database is installed, and the original database is not removed
 - DBID, or database Id, which is the unique numerical identifier of the database as shown in the control file backup, after the 'c-' prefix. For example, for c-123456789-20050505-00 the DBID is 123456789.
 - enabling online database backups, as described in Table 3-4
 - 11 Specify the Oracle and SYS passwords, as configured during initial database installation or during database backup.
 - 12 Specify all archivelog and XML or CVS repository prompts, as previously configured.
 - 13 Click on the Start Process button to start the database restore. Progress is indicated in the installer window. When restoration is complete, a success message is shown.
 - 14 Click on the Done button.
-

Procedure 3-4 To back up a standalone or primary 5620 SAM database



Note — Alcatel recommends generating 5620 SAM database backups using the client GUI database manager, as described in the *5620 SAM User Guide*.

Use the DBconfig installer backup operation to:

- Generate a backup for redundancy purposes
- Create a backup to restore redundancy after a database failover

- 1 Log in to the PC or workstation on which you want to backup the standalone or primary 5620 SAM database. Redundancy is only supported on workstations.
- 2 Perform steps 1 to 7 in Procedure 3-1.
- 3 Choose Backup or Restore a Database as the Installation Type.
- 4 Select the Backup a Database option.
- 5 Specify a temporary directory for installer files.
- 6 Locate the Oracle home directory.
- 7 Specify primary database information, as configured during primary database installation, as shown in Procedure 3-2.
- 8 Specify the destination directory for the database backup. You are prompted for this directory when you create a standby database, or restore a database.

The path to the backup directory on the restoration workstation must match the backup directory on the workstation where the backup is made.

- 9 Click on the Start Backup button. Progress is shown in the installer window. When backup is complete, click on the Next button. The temporary files are removed.

A backup success message appears.

- 10 Click on the Done button.

Procedure 3-5 To install a primary and standby 5620 SAM database and server

You need Oracle user and Solaris root user privileges to perform this procedure. See chapter 3 for more information about the specific parameters and prompts for the DBconfig and ClientServerInstall executables.

- 1 On the primary database workstation, start installing primary database software. Perform steps 1 to 6 in Procedure 3-2.
 - 2 Specify redundancy support for the primary database and configure the redundancy-related parameters, as described in steps 7 to 16 in Procedure 3-2.
 - 3 Start installing the primary server. Perform steps 1 to 6 in Procedure 3-8.

Specify redundancy support for the server and configure the redundancy-related parameters of the installer, as described in Table 3-8 in Procedure 3-8.
 - 4 Complete steps 7 to 10 in Procedure 3-8 to install the active server.
 - 5 On the standby database workstation, copy the database backup file set and start installing standby database software, as described in steps 18 to 29 in Procedure 3-2.
 - 6 Start installing standby server software, as described in steps 1 to 7 in Procedure 3-8.

Specify redundancy support for the server and configure the redundancy-related parameters of the installer, as indicated in Table 3-8 in Procedure 3-8.
 - 7 Complete steps 8 to 10 in Procedure 3-8 to install the standby server.
 - 8 Once installed, use the client GUI to verify that the active and standby databases are communicating. Active and standby status messages are displayed in the client GUI task bar.
-

Procedure 3-6 To add redundancy to a standalone database and create a primary database

You need Oracle user and Solaris root user privileges to perform this procedure. See chapter 3 for more information about the specific parameters and prompts from the DBconfig and ClientServerInstall executables.

- 1 Shut down the 5620 SAM servers and clients.
 - 2 Start the DBconfig installer, as described in Procedure 3-2.
Do not reinstall Oracle software.
 - 3 Configure the following:
 - Choose the Configure Primary/Standby Databases option.
 - Specify the Primary database configuration option.
 - Specify the database proxy port number, which is used by the server to send switchover and failover commands.
 - Specify the existing standalone database installation directory, for example, the standalone database instance name of samdb.
 - Verify the prompts that are related to the standalone database.
 - Specify the prompts that are related to the standby database, for example, the standby database instance name of samdb2.
 - 4 Click on the Start Process button to start the conversion from a standalone database to a primary database.
 - 5 Complete steps 5 to 6 in Procedure 3-5 to create a standby database.
-

Procedure 3-7 To restore standby database redundancy following a failover

As described in the *5620 SAM User Guide*, after a database failover, you must reconfigure the former primary to become the new standby. You need Oracle user privileges. See Procedure 3-2 for more information about the specific parameters and prompts of the DBconfig installer.

- 1 Start the DBconfig installer on the new primary database workstation, as described in Procedure 3-2. Do not reinstall Oracle software.
- 2 Obtain a new backup database of the primary database. This backup is used to create the standby database, as described in Procedure 3-4.

- 3 Copy the backed-up database from the primary database workstation to the standby database workstation (the former primary database workstation, before the failover).
 - 4 Start the DBconfig installer on the standby workstation and install the standby database, recreating redundancy, as described in steps 18 to 29 in Procedure 3-2 . Configure the parameters related to a standby database installation.
 - 5 Start the standby database.
-

3.5 5620 SAM server installation procedures

This section provides the procedures to install 5620 SAM server applications.

Procedure 3-8 To install the 5620 SAM server in standalone or redundant mode

Only one primary or standalone server should be installed and pointed to the primary or standalone 5620 SAM database. You can install the server on the same platform as the database, or on a separate platform.

You need root or administrator privileges to perform this procedure.

When configuring redundancy, ensure the active database is installed and running.

- 1 Log in to the platform on which you want to install the 5620 SAM server.
- 2 Insert the 5620 SAM application DVD.
- 3 For:
 - a Windows XP and Windows 2000 installations, go to the Windows directory and double-click on the ClientServerInstall.exe file.
 - b Windows 2003 installations:

- i Right-click on the ClientServerInstall.exe installation file from the Windows directory.
 - ii Click on the Compatibility tab button.
 - iii Select the compatibility check box.
 - iv Choose Windows XP from the compatibility mode drop-down menu.
- c Solaris installations:



Note — For workstation security, a user other than root user, but with root permissions, should be used.

- i Log in as the root UNIX user.
- ii From the application DVD, go to the Solaris directory.
- iii Run from the prompt:

```
./ClientServerInstall.bin ↵
```

The 5620 SAM installer is started, and a series of forms with installation parameters appears.

- 4 Click the Next button. The 5620 SAM Software License Agreement appears.
- 5 Choose I accept the terms of the License Agreement, and click on the Next button. You must accept the license agreement.
- 6 Specify the type of installation, as described in Table 3-7.

Table 3-7 5620 SAM server installation type parameters

Parameter	Instructions
Installation type	Choose Server Installation and Configuration.
Specify the Base Directory for 5620 SAM Server Files	<p>Enter a name and path for the base directory of all 5620 SAM-server related files. For example, C:\5620sam\server or /opt/5620sam/server.</p> <p>When you are configuring redundancy, server installation must be on a Solaris workstation.</p> <p>The server installation root directory is created by the 5620 SAM installer, if it does not already exist. Click on the Create the Directory and Continue button, if required.</p>

- Click on the Install button when prompted. A series of forms with installation parameters appears. Table 3-8 describes the parameters.

Table 3-8 5620 SAM server installation parameters

Parameter	Instructions
License Information	
Customer name and license key	<p>Specify the customer name. Use the same customer name that was used when applying for the license key.</p> <p>Specify the license key in the form XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX</p> <p>Include the dashes when you enter the license key. The customer name used to apply for the license key is used as part of the license key, and must match. For example, if the customer name used to apply for the key was ABC Industries Incorporated, use that name for the Customer Name, rather than ABC industries.</p>
Redundancy Support	
Redundancy Configuration	Specify whether the server is installed using a redundant configuration using the check box. When redundancy is enabled, you can configure primary (active) and standby database parameters, and the server redundancy configuration parameters. When redundancy is not enabled, you can only configure the standalone database parameters. Redundancy is only supported on Solaris workstations.
Primary Database Configuration (for redundant configurations)	

(1 of 6)

Parameter	Instructions
Primary Database Configuration	<p>When you specify redundancy support, you can configure the parameters for the primary (active) database connection:</p> <ul style="list-style-type: none"> • Primary Database IP Address • Primary Database Server Port (default is 1521) • Primary Database Instance Name, for example, samdb1 • Database User Name • Database User Password and Confirm Database User Password • Primary Database Proxy Port (default is 9002)
Online Database Backups	
Enable Online Database Backup	<p>In a redundant configuration, online database backups on the primary database are created and then transferred to the standby database.</p> <p>Online database backups generate additional database archive files and additional database space is required. These archive files are removed after a database backup is performed. Alcatel recommends that you:</p> <ul style="list-style-type: none"> • create a separate partition for database backups • create a database directory equal to at least five times the expected database size • ensure that the backup disk or partition is sized for growth, depending on network considerations <p>See the <i>5620 SAM Planning Guide</i> for more information about disk sizing. For example, if the database holds 1.5 Gb of data, the backup directory and disk size should be at least 7.5 Gb of data. The additional disk space is required because of the round-robin approach to database backups. See the <i>5620 SAM User Guide</i> for more information about performing database backups.</p>
Online Backup Interval (Hours)	Specify how often the database is to be backed up. For example, every 24 h (default).
Online Backup Destination	Specify the backup directory on the database workstation. For example, C:\5620sam\dbbackup or /opt/5620sam/dbbackup.
Number of Backup Sets	<p>Specify the number of database backup sets to store on the disk or partition where the database backups are stored. The default is 3.</p> <p>For example, if the backup destination is dbbackup, and 3 backup sets are specified, the dbbackup directory contains the following sub-directories: backupset_1, backupset_2, and backupset_3.</p> <p>A large numbers of backup sets can cause disk or partition space problems. Alcatel recommends:</p> <ul style="list-style-type: none"> • create a separate partition for database backups • create a directory equal to at least five times the expected database size • ensure that the backup disk or partition is sized for growth, depending on network considerations
Standby Database Configuration	

(2 of 6)

Parameter	Instructions
Standby Database Configuration	<p>When you specify redundancy support, you can configure the parameters for the standby database connection:</p> <ul style="list-style-type: none"> Standby Database Server IP Address (Database Server IP Address) Standby Database Instance Name (Database instance name, which must be different from the instance name of the primary database, for example, samdb2) Standby Database Proxy Port (default is 9002)
Database Redundancy Options	
Database Redundancy Options	<p>Specify parameters that determine how server and database redundancy is handled.</p> <ul style="list-style-type: none"> Database Re-alignment specifies which database becomes the active database. Alcatel recommends that the database instance configured as the primary (active) database is aligned with the active server. You can also specify whether database re-alignment is disabled or whether re-alignment is done with the standby database instance. Database Failover. See the <i>5620 SAM User Guide</i> for more information about failovers. Failovers are enabled by default.
Application Server Configuration	
Application Server IP address	Specify the IP address of the PC or workstation on which you are installing the 5620 SAM server. Use the default.
EJB JNDI Server port	<p>Specify the EJB JNDI messaging port. The default is 1099. Use the default port number, or change the port based on whether the following conditions exist.</p> <ul style="list-style-type: none"> Other software uses the same port number. Alcatel recommends that no other software should run on the server. There is a firewall between the client and the server.
EJB JMS Server port	<p>Specify the EJB JMS messaging port. The default is 8093. Use the default port number, or change the port based on whether the following conditions exist.</p> <ul style="list-style-type: none"> Other software uses the same port number. Alcatel recommends that no other software should run on the server. There is a firewall between the client and the server.
High available JNDI port	Accept the default value of 1100.
TCP Port Cluster Number	Accept the default value of 11800.
Database Configuration (for standalone database systems)	
Database Server IP Address	Specify the IP address of the platform on which you installed the 5620 SAM database for a standalone configuration.

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Parameter	Instructions
Database Server Port	Specify the default port of 1521.
Database Instance Name	Specify the name of the 5620 SAM database created when you installed the 5620 SAM database. The recommended name is samdb. The database name is case sensitive.
Database User Name	Specify the 5620 SAM database user name created when you installed the 5620 SAM database. For example, samuser.
Database User Password and Confirm Database User Password	Specify and confirm the 5620 SAM database user password. For example, pASWorD.
SNMP Configuration	
SNMP trap receiving IP Address	Specify the IP address to which the managed devices should be sending SNMP traps. In cases where there are multiple active network interfaces on the 5620 SAM server, specify the IP address of the network interface through which the managed devices will communicate with the server. In cases where a network address translation firewall is located between the 5620 SAM server and managed devices in the network, specify the IP address the managed devices will use to communicate with the 5620 SAM server.
SNMP trap receiving port	Specify a port. The default is 162. This value should match the setting for the managed network devices, such as the 7750 SRs. For Solaris workstations, the port number must be above 1024. As indicated in chapter 2, note changes to port defaults and ensure ports are available across firewalls. See the <i>5620 SAM Planning Guide</i> for more information.
Trap Log Id	Specify the SNMP trap log ID. The default is 98. This value should match the setting for the managed network devices, such as the 7750 SRs.
Peer Application Server Configuration	
Peer Server IP Address	Specify the IP address of the standby server in a redundant configuration. Specify the IP address to which the managed devices should be sending SNMP traps. In cases where there are multiple active network interfaces on the 5620 SAM server, specify the IP address of the network interface through which the managed devices will communicate with the server. In cases where a network address translation firewall is located between the 5620 SAM server and managed devices in the network, specify the IP address the managed devices will use to communicate with the 5620 SAM server.
Peer Server Trap Log Id	Specify the SNMP trap log ID. The default is 98. This ID may differ for the active and standby server components. Ensure configurations match on the managed devices, such as the 7750 SR, to ensure trap logs are sent to the appropriate server.

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Parameter	Instructions
Peer Server SNMP Port Number	Specify a port. The default is 162. This setting should match the setting for the managed network devices, such as the 7750 SRs.
Peer Server TCP Port Cluster Number	Accept the default of 11800.
Alarm Agent Configuration	
Enabling HP OpenView and alarm surveillance	Select the appropriate check boxes: <ul style="list-style-type: none"> to support 5620 SAM for HP OpenView to support Alcatel alarm surveillance
Alarm Agent Configuration: HP OpenView	
HP OpenView	Specify the parameters that relate to 5620 SAM integration with HP OpenView, including: <ul style="list-style-type: none"> the community string for SNMP v2c, for example, private the target SNMP receiving port number for the HP OpenView workstation the target IP address for the HP OpenView workstation extended or subset for alarms to be sent as SNMP traps the alarm version for SNMP traps as v1 or v2c
Alarm Agent Configuration: Alcatel Alarm Surveillance	
Alarm Surveillance	An alarm agent is used to forward alarms using a CORBA interface from the 5620 SAM to another network management application, for example, the 1354 BM that is running the AS tool. Configure the following parameters: <ul style="list-style-type: none"> Primary NSP Name service host to specify the IP address of the primary host where the NSP name service is running. This is the active 5620 SAM server IP address. Primary NSP name service port to specify the port on the active 5620 SAM server. NSP name service key to specify the key. The default is DefaultNamingContext. Secondary NSP name service host to specify the IP address of the secondary host where the NSP name service is running. This is the standby 5620 SAM server IP address in a redundant configuration. Secondary NSP name service port to specify the port on the standby 5620 SAM server. <p>You can verify the configuration of the parameters on the other network management application platform in the \$NSERVERFILE, which is accessible from the param.cfg file in the AS tool directory.</p>
SAM-O Encryption Plugin	
Enable SAM-O Encryption Plugin	Specify whether to enable the 5620 SAM-O encryption plugin. XML encryption supports the selective encryption of XML messages between an OSS and the server that runs 5620 SAM-O. The 5620 SAM-O client encrypts and decrypts content.

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Parameter	Instructions
Main class name for the Plugin	When you enable SAM-O encryption, specify the main class name. You are prompted to copy the Java jar files libraries from the SAM-O encryption plugin to the plugin directory indicated.
Determining ping command availability	
Determining ping command availability	Click on the Start ping operation button to initiate a test to determine whether the 5620 SAM can locate a ping executable on the PC or workstation.
Installing the Server as an automatic startup NT Service or UNIX Daemon	
—	Displays information about automatically starting the 5620 SAM server as an automatic startup service or daemon.

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A message indicates when the installation is complete.

- 8** Click on the Done button.
- 9** Restart the operating system and log in.

The 5620 SAM server starts automatically. It may take the server up to an hour to initialize the database. Do not log in using a client until the server is up.

- 10** When configuring server and database redundancy, and the active server is now installed and running, complete installations in the following order:
 - Ensure the primary database and active server are communicating using the client GUI. Redundancy status is displayed in the task bar.
 - Install and start the standby database.
 - Install and start the standby server.

Procedure 3-9 To configure the 5620 SAM server for HTTP or HTTPS

HTTP and HTTPS processes running on the 5620 SAM server are used for 5620 SAM-O OSS Interface application communication. By default:

- HTTP is enabled on the default port
- HTTPS is disabled on a different port

To enable SSL between the 5620 SAM server and clients, see the *5620 SAM User Guide*. To enable SSL between the OSS clients and the 5620 SAM-O, see the *Alcatel 5620 SAM-O OSS Interface Developer Guide*.



Note — Alcatel recommends that the modification of the file containing the HTTP and HTTPS port configurations is modified once, according to network needs.

- 1 Backup the HTTP and HTTPS server configuration file `jboss-service.xml` before making any changes. The file is located in the C: or /
`server_installation\nms\boss\server\default\deploy\jbossweb-tomcat41.sar\META-INF` directory.
- 2 Configure the 5620 SAM server for HTTP or HTTPS use on a specified port.
 - a For HTTP configuration, follow these steps:
 - i Open the `jboss-service.xml` file in a text editor.
 - ii Search for HTTP/1.1 Connector in the file.
 - iii Ensure the Connector field is uncommented by removing the `<! --` and `-->` tags surrounding the `<Connector>` and `</Connector>` tags.
 - iv Change the port parameter in the Connector field to the desired port.
 - v Save the changes to the file.

The HTTP server is reloaded to use the new port.

- b** For HTTPS configuration, follow these steps:
 - i** Create a JKS keystore file and populate the file with the appropriate certificate. For information about creating a JKS keystore file using Java's keytool, see <http://java.sun.com/j2se/1.4.2/docs/tooldocs/windows/keytool.html>
 - ii** Open the jboss-service.xml file in a text editor.
 - iii** Search for SSL/TLS Connector in the file.
 - iv** Ensure the Connector field is uncommented by removing the <! -- and --> tags surrounding the <Connector> and </Connector> tags.
 - v** Update the keystoreFile parameter in the Factory tag to the full path and name of the keystore file created in substep i.
 - vi** Update the keystorePass parameter in the Factory tag to the keystore's password.
 - vii** Change the port parameter in the Connector field to the desired port.
 - viii** Save the changes to the file.

The HTTPS server is reloaded to use the new port.



Note — For greater security, Alcatel recommends disabling HTTP if HTTPS is used.

- 3** To disable HTTP or HTTPS, comment out the Connector field for either SSL/TLS or HTTP/1/1 in the jboss-service.xml file using the <!-- and --> comment tags.

Procedure 3-10 To add redundancy to a standalone server to create an active server and create a standby server

You need root privileges to perform this procedure.

- 1 Shut down the 5620 SAM servers and clients.
 - 2 Start the ClientServerInstall installer, as described in Procedure 3-8.
 - 3 Configure the following:
 - Choose the Server Configuration option.
 - Specify the prompts related to redundancy.
 - Choose the existing standalone server installation directory.
 - Specify the prompts related to the standby server.
 - Specify the locations and configurations of the primary and standby databases.
 - 4 Restart the server, as described in Procedure 3-8.
 - 5 Reconfigure the clients, as described in Procedure 3-12.
-

3.6 5620 SAM client installation procedures

This section provides the procedures to install 5620 SAM client applications.

Procedure 3-11 To install the 5620 SAM client

One client only should be installed per PC or workstation.

Before you install the 5620 SAM client install and start the 5620 SAM server as described in Procedure 3-8. One 5620 SAM server can support many 5620 SAM clients.

You need administrator privileges to perform this procedure.

- 1 Log in to the platform on which you want to install the 5620 SAM client.

- 2 Insert the 5620 SAM application DVD.
- 3 For:
 - a Windows XP and Windows 2000 installations, go to the Windows directory and double-click on the ClientServerInstall.exe file.
 - b Windows 2003 installations:
 - i From the Windows directory, right-click on the ClientServerInstall.exe file.
 - ii Click on the Compatibility tab button.
 - iii Select the compatibility check box.
 - iv Choose Windows XP from the compatibility mode drop-down menu.
 - c For Linux installations, start the 5620 SAM installer from the Linux directory by typing at the prompt the following command.

```
./ClientInstall_Linux.bin ↵
```
 - d For Solaris installations:
 - i Log in as UNIX user.
 - ii From the application DVD, go to the Solaris directory.
 - iii Run from the prompt:

```
./ClientServerInstall.bin ↵
```

The 5620 SAM installer is started, and a series of forms with installation parameters appears.

- 4 Click the Next button.

The 5620 SAM Software License Agreement appears.
- 5 Choose I accept the terms of the License Agreement, then click on the Next button. You must accept the license agreement.
- 6 Configure the type of installation, as described in Table 3-9.

Table 3-9 Client installation type parameters

Parameter	Instructions
Installation type	Choose Client Installation and Configuration.
Specify the Base Directory for 5620 SAM Client Files	Enter a name and path for the base directory for all 5620 SAM-client related files. For example, C:\5620sam\client or /opt/5620sam/client. This client installation root directory is created by the 5620 SAM installer if it does not already exist. Click on the Create the Directory and Continue button, if required.

- 7 Click on the Install button when prompted. A series of forms with installation parameters appears. Accept the default values, or change the defaults according to your network requirements. Table 3-10 describes the parameters.

Table 3-10 5620 SAM client installation parameters

Parameter	Instructions
Redundancy Support	
Is redundancy supported on the 5620 SAM Server	Specify whether the server is installed in redundant mode.
Redundancy configurations	Specify the IP address and the EJB JNDI server port values for the active (server one) and standby (server two) servers, when server redundancy is configured. Server one is the initial active server, and server two is the initial standby server.
Application Server Configuration	
Application server IP address	Specify the IP address of the platform on which you installed the 5620 SAM server, when redundancy is not support and there is only a standalone server.
EJB JNDI Server port	Use the default or specify a port. The default is 1099.
Navigation from External Systems	
Enable GUI navigation	Specify whether to allow navigation to the client from another other network management system, for example, the 5620 NM or 1354 BM.

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Parameter	Instructions
TCP port for accepting GUI navigation requests	Specify the TCP port used by the client to accept navigation requests from other network management system, for example, the 5620 NM. The same navigation port must be specified on the other network management system, for example, the 5620 NM.
Installing the Navigation Server as an automatic startup NT Service	
—	Displays information about automatically starting the navigation server on the client as an automatic service.

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A message indicates when the installation is complete.

- 8 Click on the Done button.
- 9 Restart Windows, Linux, or Solaris.
- 10 Start the 5620 SAM client GUI.
 - a For Windows:
 - i Click on the 5620 SAM Client App icon on your desktop.

If the icon does not appear on the desktop, go to the C:\5620sam\client\nms\bin directory and run the nmsclient.bat executable.
 - ii Log in to the 5620 SAM client.
 - b For Solaris or Linux:
 - i As the same user used to install the client, navigate to the *installation_directory*/nms/bin directory, where *installation_directory* is the 5620 SAM client installation root directory specified in Table 3-9, for example, /opt/5620sam/client.
 - ii Start the 5620 SAM client by typing at the prompt:


```
bash ./nmsclient.bash ↵
```
 - iii Log in to the 5620 SAM client.

The system administrator should use login name *admin* and password *5620Sam!* for initial access to the 5620 SAM client.

The system administrator should change the password after logging in. Choose Security→Manage Security from the 5620 SAM main menu to start the Security Management form and change the password.

Procedure 3-12 To modify clients to handle redundant server configuration

- 1 Shut down the 5620 SAM clients, if required.
 - 2 Start the ClientServerInstall installer, as described in Procedure 3-11.
 - 3 Configure the following:
 - Choose the Client Configuration option.
 - Specify the client prompts that are related to redundancy.
 - Choose the existing client installation directory.
 - Specify the prompts that are related to the redundant servers.
 - 4 Restart the client, as described in Procedure 3-11.
-

3.7 5620 SAM modification of installations procedures

This section provides the procedures to modify 5620 SAM applications.

Procedure 3-13 To re-install the 5620 SAM client using the silent mode

When re-installations of the 5620 SAM client software happen on a regular basis you can use the silent mode of installation. For example, in a lab environment where re-installations are happening daily.

When you use the silent mode of installation, a file is read that contains a previously recorded set of installation prompts. You can invoke this file to provide the installation prompt answers, which increases installation speed.

1 Change to the client installation directory.

2 At the prompt, type the following:

```
ClientServerInstall.exe -f installation directory .\
```

or

```
ClientServerInstall.bin -f installation directory .\
```

where *installation directory* is the absolute path to the client installation directory

A message indicates when the installation is complete.

3 Start the 5620 SAM client as described in Procedure 3-11.

Procedure 3-14 To modify the 5620 SAM server

You need administrator privileges to perform this procedure.

1 Log in to the platform on which you want to modify the 5620 SAM server.

2 Launch the client server installer.

3 When prompted, choose the server configuration option.

4 When prompted, specify a new license key or re-enter the existing license key. The license key should be entered in the form
XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX

Include the dashes when entering the license key.

5 Modify your 5620 SAM server settings as required. For example, you can update the license key if you want to add new client users, and you have an updated license key to allow those client GUIs to run.



Note — Do not change the IP address of the server from the 5620 SAM installer form. Contact your Alcatel technical support representative for more information, if required.

Procedure 3-15 To modify the 5620 SAM client

You need administrator privileges to perform this procedure.

- 1 Log in to the platform on which you want to modify the 5620 SAM client.
 - 2 Launch the client server installer.
 - 3 When prompted, choose the client configuration option.
 - 4 Modify your 5620 SAM client settings as required.
-

4 — *Upgrading the 5620 SAM*

- 4.1 5620 SAM upgrade overview 4-2**
- 4.2 Workflow to upgrade the 5620 SAM software 4-3**
- 4.3 5620 SAM upgrade procedures list 4-3**
- 4.4 5620 SAM upgrade procedures 4-4**

4.1 5620 SAM upgrade overview

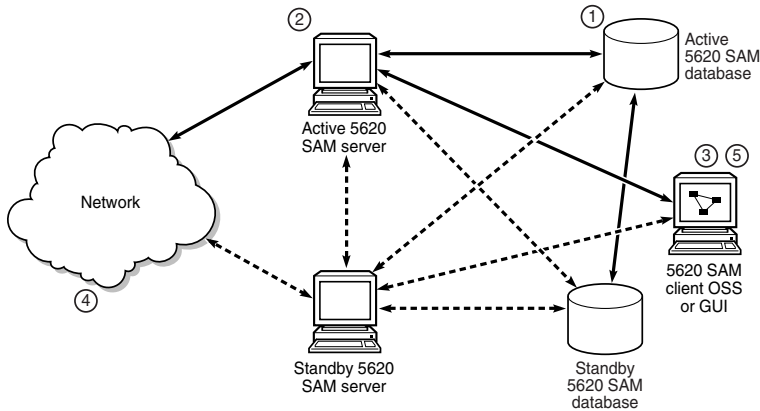
This chapter describes how to upgrade the 5620 SAM software on PCs or workstations that run on Windows, Solaris, or Linux operating systems.



Note — The procedures in this chapter assume that you are familiar with the DBconfig and ClientServerInstaller executables, as described in chapter 3.

Figure 4-1 shows the general steps to upgrade the 5620 SAM software.

Figure 4-1 5620 SAM general upgrade steps



- ① Upgrade 5620 SAM databases
- ② Upgrade 5620 SAM servers
- ③ Upgrade 5620 SAM client GUIs
- ④ Upgrade managed devices to latest version supported by new 5620 SAM release, if required
- ⑤ Upgrade OSS applications

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Consider the following before you upgrade:

- Ensure that the versions of the 5620 SAM database, server, and client applications match.
- Review chapter 3 to ensure that the redundancy components are correctly configured, when you move from a standalone to a redundant configuration.
- Before you upgrade the database, shut down the server and clients.
- Ensure that there is enough disk space on the database PC or workstation. See the *5620 SAM Planning Guide* for more information about disk sizing.
- The time to complete upgrades of each of the system components varies. Ensure that there is sufficient time to complete all upgrades, likely during a low-activity maintenance window.
- The active and standby databases must be on two workstations. You can use one workstation for the active database and server, and another workstation for the standby database and server.
- To upgrade to a new PC or workstation, or collocate a server and database on the same workstation, see chapter 5 for more information.

4.2 Workflow to upgrade the 5620 SAM software

- 1 Upgrade the 5620 SAM database using the DBconfig installer and choose the Upgrade a Database option.
- 2 After you upgrade the 5620 SAM database, and Oracle if required, uninstall the old Oracle 9.2.0.X using the Oracle Universal Installer.
- 3 Upgrade the 5620 SAM server using the ClientServerInstall.exe or .bin installer, and choose the Server Installation and Configuration option.

The installer saves any customized configurations for the current server, but reinstalls the other software components.

- 4 Install 5620 SAM clients using the ClientServerInstall.exe or .bin installer, and choose the Client Installation and Configuration option.

4.3 5620 SAM upgrade procedures list

Table 4-1 lists procedures for upgrades.

Table 4-1 5620 SAM upgrade procedures

Procedure	Purpose
To upgrade a database	Upgrade a database.
To remove 9.2.0.X Oracle software	Remove older Oracle software from a database PC or workstation that has been upgraded to use Oracle 10G and the latest 5620 SAM database software.
To upgrade a server	Upgrade a server.
To upgrade a client	Upgrade a client.

4.4 5620 SAM upgrade procedures

This section contains procedures to upgrade the 5620 SAM.

Procedure 4-1 To upgrade a database

The upgrade of the database is a resource-intensive process. You need administrator privileges on Windows PCs, and root access and Oracle user privileges on Solaris workstations, to perform this procedure.

- 1 Perform steps 1 to 8 in Procedure 3-1. Specify the following:
 - Choose Upgrade a Database from the Choose Installation Type parameter.
 - Specify whether to install Oracle. To upgrade from 5620 SAM Release 2.0, reinstall Oracle.
- 2 Follow the sequence of steps outlined in Table 4-2 necessary to upgrade a database. Click on the Next button to perform the next installation step.

Table 4-2 5620 SAM Oracle database upgrade installation parameters

Parameter	Instructions
Specify the Base Directory for Oracle Files	
Base Directory for Oracle Files	Enter the location of Oracle directory where the Oracle home directory is to be located after the upgrade. For example, C:\5620sam\oracle or /opt/5620sam/oracle. On Solaris platforms, you need read/write/execute permissions in the parent directory when you create a name and path.
Locate Old Oracle Home Directory	
Old Oracle Home Directory	Enter the location of the old Oracle Home directory, where the Oracle 9i software is installed. For example, C:\oracle\ora92 or /opt/Oracle/ora92.
SYSAUX Tablespace Directory	
Specify the datafile directory	Enter a new tablespace that is required for Oracle 10G. The new SYSAUX directory should be associated with the single tablespace. For example, C:\5620sam\samdb\tablespace or /opt/5620sam/samdb/tablespace.
Specify the Base Directory for 5620 SAM Database Files	
Location for Database Files	Enter a directory name and path for the previous installation directory. For example, C:\oracle\samdb or /opt/oracle/samdb. Click on the Install button. The installation root directory is created by the 5620 SAM database configurator, if it does not already exist.

- 3 Click on the Install button.
- 4 When you specified an Oracle installation, a series of prompts appear for the Oracle installation. See step 11 in Procedure 3-1.
- 5 Configure the required parameters to provide database configuration information. See Table 3-4 in Procedure 3-1 for more information. The parameters include:
 - Database Server IP Address
 - Database name
 - Instance Name
 - User name
 - User password and Confirm user password
 - Oracle SYS password and Oracle SYSTEM password

- 6 Specify the database backup directory and click on the Database Backup button. The database backup begins.
 - 7 Click on the Start Upgrade button.

Monitor installation logs in the *install_dir* config samdb directory. When the window indicates that the installation is complete, press the Enter key.
 - 8 Configure the parameters required to upgrade a database. Click on the Next button to perform the next step. See Table 3-4 in Procedure 3-1 for more information.
 - 9 Click on the Start Process button.
 - 10 Perform steps 13 to 14 in Procedure 3-1, as required.
-

Procedure 4-2 To remove 9.2.0.X Oracle software

After Oracle 10G software is installed as part of the database installation, remove older versions of the Oracle software.

- 1 Place the first Oracle 9.2.0.X software CD-ROM in the CD-ROM drive. The autorun installation form appears.



Note — If the autorun installation form does not appear, navigate to the autorun directory and double-click on the autorun.exe file.

- 2 Click on the Install/Deinstall Products button. The welcome form appears.
- 3 Click on the Next button. The inventory location form appears.
- 4 Click on the Uninstall button.
- 5 Follow the instructions to uninstall a previous 9.2.0.X version of the software. See the appropriate Oracle documentation for more information.

- 6 Remove the remaining Oracle 9i files from the Oracle 9.2.0.X installation directory, if required.
 - 7 Ensure that Listener services have stopped on Windows platforms for all 9.2.0.X instances. See the appropriate Windows documentation for more information, or the *5620 SAM Troubleshooting Guide* database chapter.
-

Procedure 4-3 To upgrade a server

- 1 Perform steps 1 to 6 in Procedure 3-8.
 - 2 When you upgrade a server using the same directory as the previous server, the existing configurations for the server are saved. No other configurations are required.
 - 3 Complete steps 7 to 9 in Procedure 3-8, as required.
-

Procedure 4-4 To upgrade a client

You can upgrade a client to a new installation directory, or overwrite the existing installation directory. Alcatel recommends that you perform client installations in a new client directory.

- 1 Rename the 5620 SAM Client App desktop icon.
- 2 Perform steps 1 to 6 in Procedure 3-11.
- 3 Specify a new installation directory for the new client software installation.

- 4 If you are installing in a new installation directory, and you want to save GUI user preferences, for example, the layout of tables, perform the following:
 - i In the old client installation directory, navigate to the *installdir/config/guiPreference* or *C:\installdir\config\guiPreference* directory.
 - ii Copy all files and directories to the new *installdir/config/guiPreference* or *C:\installdir\config\guiPreference* directory, for example, the *user_name.tablepreferences* file.
- 5 Perform steps 7 to 10 in Procedure 3-11.
- 6 Remove the old client installation after you confirm the new client installation operates correctly.
- 7 Remove the old client app desktop icon.

You can rename the new client app desktop icon to reflect the installed version of the software, if required.

5 — Collocating or moving 5620 SAM applications

- 5.1 5620 SAM application collocation or moving overview 5-2**
- 5.2 Workflow to co-locate or move 5620 SAM software 5-2**
- 5.3 5620 SAM collocation and move procedures list 5-3**
- 5.4 5620 SAM collocation and move procedures 5-3**

5.1 5620 SAM application collocation or moving overview

This chapter describes how to collocate existing 5620 SAM server and database software on the same workstation, or to move the 5620 SAM server and database software to a different PC or workstation.



Note — The procedures in this chapter assume that you are familiar with the DBconfig and ClientServerInstall installers, as described in chapter 3.

Consider the following before you move or co-locate:

- Ensure that the versions of the 5620 SAM database, server, and client applications match.
- When you move the 5620 SAM server, ensure managed devices are reconfigured to send traps from the network to the new server location. See the Release Notes or the *5620 SAM User Guide* for more information.
- You cannot collocate a server and database on a Windows PC. You can co-locate on a properly sized Solaris workstation.
- If you plan to collocate, Alcatel recommends collocation on the 5620 SAM server, assuming it is properly sized. This reduces the complexity of reconfiguring routers and switches to send traps to a new server location. See the *5620 SAM Planning Guide* for more information about ensuring sufficient workstation size for collocation.
- When co-locating databases and servers that will be configured in redundant mode, see chapter 3.

5.2 Workflow to co-locate or move 5620 SAM software

- 1 Configure the new PC or workstation and its operating system to the required specifications, if required.
- 2 Ensure the Solaris workstation chosen for collocation is sufficiently sized to run both the 5620 SAM server and database, if required.
- 3 Perform the necessary collocation or move procedure.
 - a Use a new workstation to collocate the 5620 SAM server and database

- b Use the 5620 SAM server workstation to collocate the 5620 SAM database.
 - c Use the 5620 SAM database workstation to collocate the 5620 SAM server.
- 4 Reconfigure clients to connect to the new 5620 SAM server, as required.

5.3 5620 SAM collocation and move procedures list

Table 5-1 lists procedures for collocating or moving.

Table 5-1 5620 SAM collocation or moving procedures

Procedure	Purpose
To collocate a server and database on a new workstation	Collocate a 5620 SAM database and server on a new Solaris workstation.
To collocate a database on the 5620 SAM server	Move a 5620 SAM database from one PC or workstation and collocate it on the 5620 SAM server workstation.
To collocate a server on the 5620 SAM database	Move a 5620 SAM server from one PC or workstation and collocate it on the 5620 SAM database workstation.

5.4 5620 SAM collocation and move procedures

This section includes procedures to collocate and move 5620 SAM applications.

Procedure 5-1 To collocate a server and database on a new workstation

- 1 Install the 5620 SAM database software using the DBconfig installer, as described in Procedure 3-1 for standalone configurations and Procedure 3-2 for redundant configurations.
- 2 Install the 5620 SAM server software using the ClientServerInstall installer, as described in Procedure 3-8.
- 3 Back up the current 5620 SAM database, as described in Procedure 3-4.

- 4 Shut down the current 5620 SAM database.
 - 5 Transfer the backed-up database from the current 5620 SAM database workstation to the new collocated 5620 SAM database workstation.
 - 6 Restore the database, as described in Procedure 3-3.
 - 7 Configure network devices to send traps to the new workstation.
 - 8 Start the 5620 SAM server.
 - 9 Reinstall clients and configure to connect to the new 5620 SAM server as described in Procedure 3-11, as required.
-

Procedure 5-2 To collocate a database on the 5620 SAM server

- 1 Install the 5620 SAM database software using the DBconfig installer, as described in Procedure 3-1 for standalone configurations and Procedure 3-2 for redundant configurations.
- 2 Back up the current 5620 SAM database, as described in Procedure 3-4 .
- 3 Shut down the current 5620 SAM database.
- 4 Shut down the current 5620 SAM server.
- 5 Transfer the backed-up database from the current 5620 SAM database workstation to the new collocated workstation.
- 6 Restore the database, as described in Procedure 3-3.
- 7 Install the new 5620 SAM server software over the existing server installation using the ClientServerInstall installer, as described in Procedure 3-8.
- 8 Start the 5620 SAM server.

- 9 Reinstall clients as described in Procedure 3-11, as required.
-

Procedure 5-3 To collocate a server on the 5620 SAM database

- 1 Configure network devices to send traps to the IP address of the new collocated workstation where the 5620 SAM server will be installed.
 - 2 Shut down the current 5620 SAM server.
 - 3 Install the new 5620 SAM server software using the ClientServerInstall installer, as described in Procedure 3-8. Configure the server to use the new IP address of the co-located database workstation.
 - 4 Back up the current 5620 SAM database, as described in Procedure 3-4.
 - 5 Start the 5620 SAM server.
 - 6 Reinstall clients and configure to connect to the new 5620 SAM server as described in Procedure 3-11, as required.
-

6 — 5620 SAM integration software

- 6.1 Installing integration software overview 6-2**
- 6.2 Workflow to install integration software 6-2**
- 6.3 Installation procedures 6-3**
- 6.4 5620 SAM integration software installation procedures 6-3**

6.1 Installing integration software overview

This chapter describes how to install network or element management software from Alcatel or other vendors that interworks with the 5620 SAM. The software includes:

- HP OpenView NNM
- 1354 BM
- 5620 NM

Consider the following before you install the software:

- See the appropriate 5620 SAM release notice to determine the compatible software loads for a specific 5620 SAM major or minor release.
- The 5620 SAM, HP OpenView NNM, and 5620 NM client software can be configured to run on the same or different PCs or workstations.
- The 5620 SAM and 1354 BM client software are configured to run on separate platforms; the 1354 BM client GUI is viewed on the 5620 SAM client GUI using X-terminal software.

6.2 Workflow to install integration software

- 1 Ensure that the appropriate platform requirements are met for the non-5620 SAM integration software. See the appropriate network management software installation guide for more information.
- 2 Install the non-5620 SAM software on the appropriate platform.
- 3 Ensure that the 5620 SAM is configured to interwork with the other network management software, for example, configuring the server to forward alarms and configuring the client to navigate to external systems.
- 4 Install the 5620 SAM integration software on the appropriate platform.
- 5 Perform the required interworking functions from the appropriate platform. See the *5620 SAM User Guide* and the appropriate non-5620 SAM documentation for more information.

6.3 Installation procedures

Table 6-1 lists the procedures to install non-5620 SAM integration software.

Table 6-1 Non-5620 SAM software installation procedures

Procedure	Purpose
To install the 5620 NM integration software	The software to allow interworking functions between the network management systems, for example, alarm viewing and navigation.
To install the 1354 BM integration software	
To install the HP OpenView NNM integration software	The software to allow management of the managed devices, such as the 7750 SR, from an HP OpenView NNM platform.

6.4 5620 SAM integration software installation procedures

This section describes how to install non-5620 SAM integration software.

Procedure 6-1 To install the 5620 NM integration software

The 5620 NM integration with 5620 SAM software is on the 5620 SAM software DVD, and must be installed on the platform that is running the 5620 NM client software.

- 1 You can:
 - a Install the 5620 NM software, as described in the *5620 Network Manager Installation and Upgrade Guide*.

Ensure the 5620 SAM integration package is installed on the 5620 NM.
 - b Already have a 5620 NM GUI running on the 5620 NM operator position workstation.

- 2 Ensure the 5620 SAM and 5620 NM clients are configured for:
 - the integration of the 5620 SAM and 5620 NM
 - the 5620 SAM client IP address from the 5620 NM
 - the navigation port used to accept navigation requests on the 5620 SAM client, as specified during 5620 SAM client installation

See Procedure 3-11 for more information about installing the 5620 SAM client.

Ensure the 5620 SAM server is configured for alarm forwarding. See Procedure 3-8 for more information.

- 3 Copy the samadaptor directory on the DVD to the 5620 NM root directory.
 - 4 Restart the 5620 NM GUI if the GUI is already installed and running.
 - 5 Perform the required interworking functions, as described in the *5620 Network Manager User Guide* and *5620 SAM User Guide*.
-

Procedure 6-2 To install the 1354 BM integration software

The 1354 BM integration with 5620 SAM software is on the 5620 SAM software DVD as two tar or zip files, and must be installed on the HP platform where the 1354 BM software is installed.

- 1 Ensure that the 1354 BM system instance is installed on the TMN OS platform. See the appropriate 1354 BM installation guide for more information.
- 2 Copy the two zip files from the 5620 SAM software DVD to the HP platform where the 1354 BM installation package is installed.

One zip file is copied to the /alcatel/NMA directory. Another zip file is copied to the /alcatel/NMS directory.
- 3 Run the Customization executable to create a system called NMA SAMADAPTOR. as an external application

- 4 Run the Customization executable to create a system called 5620SAM as an external application.
- 5 Start the TMN OS desktop.
- 6 Run the System Configurator for the 1354 BM. A new window appears.
- 7 For NMA 1354 BM, select the SAMADAPTOR in the window. Go to step 10.
- 8 Run the System Configurator for the 5620 SAM. A new window appears.
- 9 For 5620SAM, select the 5620SAM in the window. Go to step 10.
- 10 Specify the following using the System Configurator prompts:
 - the 5620 SAM client IP address
 - the navigation port used to accept navigation requests on the 5620 SAM client, as specified during 5620 SAM client installation
- 11 Update the hosts files on the 5620 SAM server and 1354 BM platforms:
 - a Update the /etc/hosts file on a Solaris installation to indicate the NSP server host entries for the 5620 SAM server platform.
 - b Update the C:\Windows\WINNT\system32\drivers\etc\hosts file on a Windows installation to indicate the NSP server host entries for the 5620 SAM server platform.
- 12 Configure the param.cfg file on the 1354 BM to ensure that alarms are forwarded from the 5620 SAM to the AS tool:
 - i Open a command tool on the 1354 BM.
 - ii Navigate to the AS IM directory on the 1354 BM.
 - iii Open the param.cfg file.
 - iv Set the CORBA_SERVER_DISCOVERY parameter to True.
 - v Save the changes and close the file.

- 13 Perform the required interworking functions, as described in the *5620 SAM User Guide* and the appropriate 1354 BM documentation.
-

Procedure 6-3 To install the HP OpenView NNM integration software

The HP OpenView NNM integration software is available from your Alcatel support representative, and must be installed on the Solaris platform where the HP OpenView NNM software is installed.



Note — Contact your Alcatel support representative for more detailed instructions about how to install portions of the integration package.

- 1 Install the HP OpenView NNM integration software, as described in the Alcatel Application Note describing HP OpenView NNM integration and MIB support.
- 2 Perform the required interworking functions, as described in the *5620 SAM User Guide*, the README file included in the HP OpenView NNM integration package, and the appropriate HP OpenView NNM documentation.

To manage additional device functionality using device MIBs, contact your Alcatel support representative.

7 — Uninstalling the 5620 SAM

- 7.1 Before you uninstall 5620 SAM applications overview 7-2**
- 7.2 Workflow to uninstall the 5620 SAM software 7-2**
- 7.3 5620 SAM uninstallation procedures list 7-2**
- 7.4 5620 SAM uninstallation procedures 7-2**

7.1 Before you uninstall 5620 SAM applications overview

This chapter describes procedures for uninstalling 5620 SAM software applications. See chapter 3 for information about installation prompts. See chapter 2 for operating system notes.

7.2 Workflow to uninstall the 5620 SAM software

- 1 After shutdown, uninstall one or more 5620 SAM clients.
- 2 After shutdown, uninstall the 5620 SAM server.
- 3 After shutdown, uninstall the 5620 SAM database.

7.3 5620 SAM uninstallation procedures list

Table 7-1 lists the procedures to uninstall 5620 SAM applications.

Table 7-1 5620 SAM uninstallation procedures

Procedure	Purpose
To uninstall a 5620 SAM client	To uninstall the 5620 SAM client
To uninstall the 5620 SAM server	To uninstall the 5620 SAM server
To uninstall the 5620 SAM database	To uninstall the 5620 SAM database

7.4 5620 SAM uninstallation procedures

This section contains procedures on how to uninstall 5620 SAM.

Procedure 7-1 To uninstall a 5620 SAM client

- 1 Stop the 5620 SAM client. From the 5620 SAM GUI main menu, choose Application→Exit.
- 2 Ensure there is no command window opened inside any directory below the installation directory.
- 3 Choose:
 - a For Windows:

Procedure 7-2 To uninstall the 5620 SAM server

You need administrator privileges to perform this procedure. Ensure that all 5620 SAM clients have been uninstalled, as described in Procedure 7-1.

- 1 For Windows, follow these steps to stop the server:
 - i Open the Control Panel from the Start menu.
 - ii Choose Administrative Tools→Services.
 - iii Select the 5620SAMServer service from the list.
 - iv Choose Action→Stop from the menu. A message indicates that the server has stopped.
- 2 Ensure there is no command window opened inside any directory below the installation directory.
- 3 Choose:
 - a For Windows:
 - i Choose Start→Settings→Control Panel from the Windows tool bar.
 - ii Choose Add/Remove Programs.
 - iii Select the 5620 SAM server software.
 - iv Click the Change/Remove button. The 5620 SAM uninstaller is started.
 - b For Solaris:
 - i As the same user used to install the server, for example as the recommended root user, navigate to the *installation_directory/nms/bin* directory, where *installation_directory* is the 5620 SAM server installation root directory.
 - ii Stop the server by typing at the prompt

```
./nmserver.bash stop ↵
```

A message indicates that the server has stopped.

- iii Navigate to the *installation_directory*/Uninstaller directory, where *installation_directory* is the 5620 SAM server installation root directory.
- iv Start the 5620 SAM server uninstaller by typing at the prompt

```
./Uninstall_5620_SAM ↵
```

The 5620 SAM uninstaller is started.

- 4 Click on the Uninstall button.
Confirm that no 5620 SAM applications are running. Click on the Continue with the Uninstall process button.
 - 5 Confirm whether you want to restart Windows or Solaris. You are prompted to restart when new files or folders have been added to the installation directory after the original installation. A message indicates that the uninstall is complete.
 - 6 Click on the Done button to exit the 5620 SAM uninstaller.
 - 7 Restart Windows or Solaris, if required.
 - 8 Remove the files that were not uninstalled, if required.
 - 9 Remove the 5620 SAM database, as described in Procedure 7-3.
-

Procedure 7-3 To uninstall the 5620 SAM database

Before you perform this procedure, ensure all clients and the server is uninstalled. You need administrator, UNIX root user, and Oracle user privileges to perform this procedure.

- 1 Choose:
 - a For Windows:
 - i As administrator, choose Start→Settings→Control Panel from the Windows toolbar.

Glossary

Numerics

1354 BM 1354 Broadband Network Manager

5620 NM 5620 Network Manager

The 5620 NM provides advanced management of large, complex LAN/WAN networks, including IP, hybrid circuit-switched, ATM, frame relay, and X.25 networks. The GUI operates on a Sun workstation.

5620 SAM 5620 Service Aware Manager

The 5620 SAM is the network manager for the 7750 SR and 7450 ESS.

5620 SAM client The 5620 SAM client provides a GUI to configure IP network elements.

5620 SAM database The 5620 SAM database stores network objects and configurations.

5620 SAM server	The 5620 SAM server mediates between the 5620 SAM database, 5620 SAM client, and the network.
5620 SAM-A	5620 SAM Assurance The 5620 SAM-A provides service assurance functionality.
5620 SAM-E	5620 SAM Element Manager The 5620 SAM-E provides network element configuration and management functionality.
5620 SAM-O	Alcatel 5620 SAM Open Interfaces The 5620 SAM-O provides an XML interface for OSS applications to interact with the 5620 SAM.
5620 SAM-P	Alcatel 5620 SAM Provisioning The 5620 SAM-P provides service provisioning functionality.
7450 ESS	7450 Ethernet Service Switch The 7450 ESS is a router that provides scalable, high-speed Ethernet private data services with SLAs.
7750 SR	7750 Service Router The 7750 SR is a router that provides scalable, high-speed private data services with SLAs.

A

AS	AS is expanded two ways: <ol style="list-style-type: none">1. alarm surveillance AS is an application that receives, stores, displays, and manages real-time alarms. The AS tool consists of an IM to receive, filter, and store alarms; and a USM to display and manage alarm information.
-----------	---

2. autonomous system

An AS is a collection of routers under one administrative entity that cooperates by using a common IGP (such as OSPF). AS is synonymous with the ISO term “routing domain”. Routing between autonomous systems is done with an inter-AS or interdomain EGP, such as BGP-4.

C

CLI command line interface

The CLI is an interface that allows the user to interact with the operating system by typing alphanumeric commands and optional parameters at a command prompt. UNIX and DOS provide CLIs.

F

fault A fault is a failure or defect in a network, causing the network, or part of the network, to malfunction.

FTP file transfer protocol

FTP is the Internet standard client-server protocol for transferring files from one computer to another. FTP generally runs over TCP or UDP.

G

GUI graphical user interface

A GUI is a computer user interface that incorporates graphics to make software easier to use.

H

HP OpenView Hewlett-Packard OpenView

NNM HP OpenView is a network management platform used primarily for managing SNMP nodes.

I

ICMP Internet Control Message Protocol

ICMP is a protocol that sends and receives the control and error messages used to manage the behavior of the TCP/IP stack. ICMP is defined in RFC 792.

IP internet protocol

IP is the network layer for the TCP/IP protocol suite. It is a connectionless, best-effort packet-switching protocol defined by the IETF.

J

JMS Java Message Service

JMS is an API that combines Java technology with enterprise messaging. The JMS API defines a common set of interfaces for creating applications for reliable asynchronous communication among components in a distributed computing environment, so that the applications are portable across different enterprise systems.

O

OC-N Optical Carrier - level *N*

An optical SONET signal carried at the speed of *N*, for example OC-12 is a signal at 622.08 Mb/s.

R

RAID redundant array of independent disks

RN release notice

The RN provides details about outstanding issues and functionality related to a software release, including platform requirements, configurations, restrictions, and issues lists.

router A router is an interface device between two networks, connecting LANs to LANs or LANs to WANs. It selects the most cost-effective route for moving data between multiprotocol LANs, making sure that only one route exists between source and destination devices.

S

SNMP Simple Network Management Protocol

A protocol used for the transport of network management information between a network manager and a network element. SNMP is the most commonly used standard for most interworking devices.

SNMP trap An SNMP trap is an unsolicited notification that indicates that the SNMP agent on the node has detected a node event, and that the network management domain should be aware of the event. SNMP trap information typically includes alarm and status information, and standard SNMP messages.

SNMP trap log ID SNMP trap log ID is the ID of a log. A valid log ID must exist for alarms and traps to be sent to the trap receiver.

SSH secure shell

The SSH protocol is used to protect communications between two hosts by encrypting a Telnet or FTP connection between the 5620 SAM and some nodes. Both ends of the client/server connection are authenticated using a digital certificate, and passwords are protected by being encrypted.

T

Telnet Telnet is the Internet-standard TCP/IP protocol for remote terminal connection service. The Telnet command and program are used to log in from one Internet site to another.

tiered architecture Tiered architecture refers to the way in which the GUI and the network management components use a Java-based technology that provides distributed, secure, and scalable applications. This tiered architecture allows for scaling and fair load balancing, which improves performance.

TMN OS Telecommunications Management Network Operating System

A TMN is an industry-standard model defined by the ITU-T for the layering of management functionality for telecommunications networks. In the Alcatel use of TMN OS, a common desktop is used to allow different network management components, such as the 1354 BM and the 5620 SAM to interwork as an integrated subsystem.

U

UI user interface

See GUI

UNIX UNIX is a multi-user, multitasking operating system, which is used on mainframes, workstations, and PCs. UNIX is the basis of Solaris and SunOS, which are operating systems used by Sun workstations.

W

window Windows are forms, panels of information, equipment drawings, or graphics that appear on a screen. Windows commonly allow a user to input data and initiate functions but some windows simply display information.

workflow The 5620 SAM workflow is a defined series of tasks that describe how to install, configure, create, and manage services.

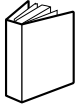
workstation A workstation is typically Sun Microsystems hardware running one or more 5620 SAM software applications.

X

XML extensible markup language

XML defines the syntax to customize markup languages. The markup languages are used to create, manage, and transmit documents across the Web.

Customer documentation and product support



Customer documentation

<http://www.alcatel.com/osds/>

Product manuals and documentation updates are available through the Alcatel Support Documentation and Software Download service at Alcatel.com. If you are a new user and require access to this service, please contact your Alcatel sales representative.



Technical support

<http://www.alcatel.com/support/>



Customer documentation feedback

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95-5813-01-00-C