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## PPP Configuration Commands

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### Global Commands

#### description

<b>Syntax</b>	<b>description</b> <i>description-string</i> <b>no description</b>
<b>Context</b>	config>subscr-mgmt>pppoe-policy config>service>ies>sub-if>grp-if>pppoe config>service>vprn>sub-if>grp-if>pppoe
<b>Description</b>	This command creates a text description stored in the configuration file for a configuration context. The <b>description</b> command associates a text string with a configuration context to help identify the content in the configuration file. The <b>no</b> form of this command removes the string from the configuration.
<b>Default</b>	No description associated with the configuration context.
<b>Parameters</b>	<i>description-string</i> — The description character string. Allowed values are any string up to 80 characters long composed of printable, 7-bit ASCII characters. If the string contains special characters (#, \$, spaces, etc.), the entire string must be enclosed within double quotes.

#### shutdown

<b>Syntax</b>	<b>[no] shutdown</b>
<b>Context</b>	config>service>ies>sub-if>grp-if>pppoe config>service>vprn>sub-if>grp-if>pppoe
<b>Description</b>	This command administratively disables an entity. When disabled, an entity does not change, reset, or remove any configuration settings or statistics. The operational state of the entity is disabled as well as the operational state of any entities contained within. Many objects must be shut down before they may be deleted. The <b>no</b> form of this command places the entity into an administratively enabled state.

#### ppp-policy

<b>Syntax</b>	<b>ppp-policy</b> <i>ppp-policy-name</i> [ <b>create</b> ] <b>no ppp-policy</b> <i>ppp-policy-name</i>
<b>Context</b>	config>subscr-mgmt

## Global Commands

<b>Description</b>	This command configures a PPP policy. These policies are referenced from interfaces configured for PPP. Multiple PPP policies may be configured.  This default policy cannot be modified nor deleted.
<b>Default</b>	default
<b>Parameters</b>	<i>ppp-policy-name</i> — Specifies the PPP policy name up to 32 characters in length.  <b>create</b> — Keyword used to create the entity. The <b>create</b> keyword requirement can be enabled/disabled in the <b>environment&gt;create</b> context.

## default-pap-password

<b>Syntax</b>	<b>default-pap-password</b> <i>password</i> [ <b>hash</b>   <b>hash2</b> ] <b>no default-pap-password</b>
<b>Context</b>	config>subscr-mgmt>ppp-policy
<b>Description</b>	This command configures the default PAP password for RADIUS authentication when the Password-Length=0 in the PAP Authenticate-Request.  RADIUS authentication cannot be initiated when the Password-Length=0 in the PAP Authenticate-Request and no default-pap-password is configured. The PPP session terminates in this case.
<b>Default</b>	no default-pap-password
<b>Parameters</b>	<i>password</i> — Specifies a default PAP password , maximum 64 characters  <b>hash</b> — Specifies the key is entered in an encrypted form. If the hash or hash2 parameter is not used, the key is assumed to be in a non-encrypted, clear text form. For security, all keys are stored in encrypted form in the configuration file with the hash or hash2 parameter specified.  <b>hash2</b> — Specifies the key is entered in a more complex encrypted form that involves more variables than the key value alone, this means that hash2 encrypted variable can't be copied and pasted. If the hash or hash2 parameter is not used, the key is assumed to be in a non-encrypted, clear text form. For security, all keys are stored in encrypted form in the configuration file with the hash or hash2 parameter specified.

## default-user-name

<b>Syntax</b>	<b>default-user-name</b> <i>ppp-username</i> <b>no default-user-name</b>
<b>Context</b>	config>subscr-mgmt>ppp-policy
<b>Description</b>	This command configures the default username for authentication when not provided in PAP/CHAP authentication (no Name field in CHAP Response message or Peer-Id-Length=0 in PAP Authenticate-Request).  The PPP session terminates when no username is provided in PAP/CHAP authentication and no default-user-name is configured.
<b>Default</b>	no default-user-name

**Parameters** *ppp-username* — Specifies a default username up to 253 characters.

## disable-cookies

**Syntax** **[no] disable-cookies**

**Context** config>subscr-mgmt>ppp-policy

**Description** This command disables the use of cookies.  
The **no** form of the command enables cookies.

**Default** no disable-cookies

## force-ppp-mtu-gt-1492

**Syntax** **[no] force-ppp-mtu-gt-1492**

**Context** config>subscr-mgmt>ppp-policy

**Description** This command enables PPPoE Maximum-Receive-Unit (MRU) negotiations greater than 1492 bytes without the need to receive a “PPP-Max-Payload” tag in PADI/PADR from the client as defined in RFC 4638, *Accommodating a Maximum Transit Unit/Maximum Receive Unit (MTU/MRU) Greater Than 1492 in the Point-to-Point Protocol over Ethernet (PPPoE)*.  
The MRU send in the initial LCP Config Request is determined by the **port mtu** and **ppp-policy ppp-mtu** parameters.

**Default** no force-ppp-mtu-gt-1492

## keepalive

**Syntax** **keepalive seconds [hold-up-multiplier multiplier]**  
**no keepalive**

**Context** config>subscr-mgmt>ppp-policy

**Description** This command defines the keepalive interval and the number of keepalives that can be missed before the session is declared down for this PPP policy.  
The **no** form of the command reverts to the default value.

**Default** 30 seconds  
3 multiplier

**Parameters** *seconds* — Specifies the keepalive interval in seconds.  
**Values** 10 — 300  
*hold-up-multiplier multiplier* — Specifies the number of keepalives that can be missed.  
**Values** 1 — 5

## ipcp-subnet-negotiation

<b>Syntax</b>	<b>[no] ipcp-subnet-negotiation</b>
<b>Context</b>	config>subscr-mgmt>ppp-policy
<b>Description</b>	<p>This command enables subnet negotiation using PPP IPCP Subnet-Mask option (0x90) if requested by the client. The subnet can be obtained from RADIUS (Framed-IP-Netmask attribute) or local user database. The subnet is installed as a managed route of the PPP session. This requires the anti-spoof type on the SAP to be configured to nh-mac.</p> <p>By default, an IPCP Config Request with IPCP Subnet-Mask option (0x90) is rejected.</p>
<b>Default</b>	no ipcp-subnet-negotiation

## lcp-ignore-magic-numbers

<b>Syntax</b>	<b>[no] lcp-ignore-magic-numbers</b>
<b>Context</b>	config>subscr-mgmt>ppp-policy
<b>Description</b>	<p>This command enables the PPP session to stay established when an LCP peer magic number mismatch is detected.</p> <p>By default, the PPP session is terminated when an LCP peer magic number mismatch is detected.</p>
<b>Default</b>	no lcp-ignore-magic-numbers

## max-sessions-per-mac

<b>Syntax</b>	<b>max-sessions-per-mac sessions [allow-same-circuit-id-for-dhcp]</b> <b>no max-sessions-per-mac</b>
<b>Context</b>	config>subscr-mgmt>ppp-policy
<b>Description</b>	<p>This command sets the maximum PPP sessions that can be opened for a given MAC address.</p> <p>To enable IPv4 address allocation using the internal dhcpv4 client for multiple PPPoE sessions on a single SAP and having the same MAC address and circuit-ID, the optional cli flag “allow-same-circuit-id-for-dhcp” should be added. The SROS local-dhcp-server will detect the additional vendor-specific options inserted by the internal dhcpv4 client and use an extended unique key for lease allocation.</p> <p>The <b>no</b> form of the command reverts to the default value.</p>
<b>Default</b>	1
	<i>sessions</i> — Specifies the maximum PPP sessions that can be opened for the given MAC address.
	<b>Values</b> 1 — 8191
	<b>allow-same-circuit-id-for-dhcp</b> — (optional) Enables support for IPv4 address allocation using the internal dhcpv4 client for multiple PPPoE sessions on a single SAP that have the same MAC address and circuit-ID.

## pado-ac-name

<b>Syntax</b>	<b>pado-ac-name</b> <i>name</i> <b>no pado-ac-name</b>
<b>Context</b>	config>subscr-mgmt>ppp-policy
<b>Description</b>	This command configures the Access Concentrator name that is used in the PPPoE PADO message. By default, the system name or if not configured, the chassis Serial Number is used.
<b>Default</b>	no pado-ac-name
<b>Parameters</b>	<i>name</i> — Specifies the string up to 128 characters to be used as AC name in the PPPoE PADO message.

## pado-delay

<b>Syntax</b>	<b>pado-delay</b> <i>deci-seconds</i> <b>no pado-delay</b>
<b>Context</b>	config>subscr-mgmt>ppp-policy
<b>Description</b>	This command configures the delay timeout before sending a PPP Active Discovery Offer (PADO) packet.
<b>Default</b>	no delay
<b>Parameters</b>	<i>deci-seconds</i> — Specifies the delay timeout before sending a PADO. <b>Values</b> 1 — 30

## ppp-authentication

<b>Syntax</b>	<b>ppp-authentication</b> { <b>pap</b>   <b>chap</b>   <b>pref-chap</b>   <b>pref-pap</b> } <b>no ppp-authentication</b>
<b>Context</b>	config>subscr-mgmt>ppp-policy
<b>Description</b>	This command configures the PPP protocol used to authenticate the PPP session.
<b>Parameters</b>	<b>pap</b> — Specifies to always use PAP to authenticate the sessions. <b>chap</b> — Specifies to always use CHAP to authenticate the sessions. <b>pref-chap</b> — Specifies to attempt to use CHAP and if it fails, use PAP. <b>pref-pap</b> — Specifies to attempt to use PAP and if it fails, use CHAP.

## ppp-chap-challenge-length

<b>Syntax</b>	<b>ppp-chap-challenge-length</b> min <i>minimum-length</i> max <i>maximum-length</i>
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## Global Commands

### **no ppp-chap-challenge-length**

<b>Context</b>	config>subscr-mgmt>ppp-policy
<b>Description</b>	This command configures the minimum and maximum length of a PPP Chap Challenge. When the Chap Challenge is exactly 16 bytes, it is send in the [60] CHAP-Challenge RADIUS attribute and also copied in the RADIUS Authenticator field from the RADIUS Access Request.
<b>Default</b>	ppp-chap-challenge-length min 32 max 64
<b>Parameters</b>	<b>min</b> <i>minimum-length</i> — Specifies the minimum PPP CHAP challenge length. <b>Values</b> 8— 64 <b>max</b> <i>maximum-length</i> — Specifies the maximum PPP CHAP challenge length. <b>Values</b> 8 — 64

## ppp-initial-delay

<b>Syntax</b>	<b>[no] ppp-initial-delay</b>
<b>Context</b>	config>subscr-mgmt>ppp-policy
<b>Description</b>	This command delays the sending of an LCP-configure request after the discovery phase by 40 – 60 milliseconds.
<b>Default</b>	no ppp-initial-delay

## ppp-mtu

<b>Syntax</b>	<b>ppp-mtu</b> <i>mtu-bytes</i> <b>no ppp-mtu</b>
<b>Context</b>	config>subscr-mgmt>ppp-policy
<b>Description</b>	This command configures the the maximum PPP MTU size.
<b>Default</b>	no ppp-mtu
<b>Parameters</b>	<i>mtu-bytes</i> — Specifies the the maximum PPP MTU size. <b>Values</b> 512 — 9212

## ppp-options

<b>Syntax</b>	<b>ppp-options</b>
<b>Context</b>	config>subscr-mgmt>pppoe-policy

**Description** This command enables the context to configure PPP options.

## custom-option

**Syntax** **custom-option** *protocol option-number address ip-address*  
**custom-option** *protocol option-number hex hex-string*  
**custom-option** *protocol option-number string ascii-string*  
**no custom-option** *protocol option-number*

**Context** config>subscr-mgmt>pppoe-policy>ppp-options

**Description** This command provides the ability to configure custom PPP options. Note that standard options such as the DNS name will be returned from DHCP or RADIUS and be converted to PPP automatically. Compression is not supported.

The no form of the command removes the custom options from the configuration.

**Parameters** *protocol* — Specifies a protocol for the custom option.

**Values** lcp, ipcp

*option-number* — Assigns an identifying number for the custom option.

**Values** 0 — 255

*ip-address* —

*ascii-string* — Specifies an ASCII format string for the custom option up to 127 characters long.

*hex-string* — Specifies a hex value for the custom option.

**Values** [0x0..0xFFFFFFFF...(max 254 hex nibbles)]

## re-establish-session

**Syntax** **re-establish-session** *padr*  
**no re-establish-session**

**Context** config>subscr-mgmt>pppoe-policy

**Description** This command enables/disables host to reconnect and override existing session.

If disabled and a subscriber abruptly terminates a PPP sessions without sending a PADT to the BNG, the BNG will deny any reconnect attempts until the stale PPP session has expired. With this, enabled re-establish-session will eliminate the waiting period by allowing immediate PPP reconnection attempts

**Default** no re-establish-session

## reject-disabled-ncp

**Syntax** [**no**] **reject-disabled-ncp**

## Global Commands

**Context** config>subscr-mgmt>pppoe-policy

**Description** This command forces an LCP Protocol Reject when receiving an IPv6CP Configure Request message while IPv6 is not configured.

By default, an IPv6CP Configure Request message is silently ignored when IPv6 is not configured.

**Default** no reject-disabled-ncp

## reply-on-padt

**Syntax** [no] **reply-on-padt**

**Context** config>subscr-mgmt>pppoe-policy

**Description** Some of the PPPoE clients expect reply on PPPoE Active Discovery Terminate (PADT) message before the context of the session is cleared up. To support such client, a command enabling reply to PADT is provided.

**Default** no reply-on-padt

## session-timeout

**Syntax** **session-timeout** *timeout*  
**no session-timeout**

**Context** config>subscr-mgmt>ppp-policy

**Description** This command defines the time in seconds between 1 and 360 days before the PPP session will be terminated. The default value is unlimited session timeout.

A RADIUS specified session-timeout (attribute [27] Session-Timeout) overrides the CLI configured value.

**Default** no session-timeout

**Parameters** *timeout* — Specifies the session timeout in seconds.

**Values** 1 — 31104000

## unique-sid-per-sap

**Syntax** **unique-sid-per-sap** [*per-msap*]  
**no unique-sid-per-sap**

**Context** config>subscr-mgmt>ppp-policy

**Description** This command assigns a unique session ID to each PPPoE session with different MAC addresses that are active on a single SAP.

On a capture-sap, a unique session ID is assigned per MSAP. Multiple sessions with different MAC addresses that are active on the same MSAP have the same session ID.



With the optional parameter `per-msap`, a unique session id is assigned for each session with different MAC address that is active on the same MSAP.

The maximum session ID range is 1 — .8191.

By default, all PPPoE sessions with different MAC address on a given SAP or MSAP have session-id 1.

**Default** no unique-sid-per-sap

**Parameters** `per-msap` — Assigns a unique session id for each session with different MAC address that is active on the same MSAP. This parameter has no effect on regular SAPs.

## PPP/PPPoE Service Commands

### ppp

<b>Syntax</b>	<b>[no] ppp</b>
<b>Context</b>	config>service>ies>sub-if>grp-if config>service>vprn>sub-if>grp-if
<b>Description</b>	This command configures PPP parameters. The <b>no</b> form of the command reverts all PPP parameters from the PPP context to their defaults.

### pppoe

<b>Syntax</b>	<b>[no] pppoe</b>
<b>Context</b>	config>service>ies>sub-if>grp-if config>service>vprn>sub-if>grp-if
<b>Description</b>	This command configures PPPoE parameters. The <b>no</b> form of the command reverts all PPPoE parameters from the PPPoE context to their defaults.

### anti-spoof

<b>Syntax</b>	<b>anti-spoof</b> <i>pppoe-anti-spoofing-type</i> <b>no anti-spoof</b>
<b>Context</b>	config>service>ies>sub-if>grp-if>pppoe config>service>vprn>sub-if>grp-if>pppoe
<b>Description</b>	This command specifies the type of PPPoE anti-spoof filtering to use.
<b>Default</b>	mac-sid
	<i>pppoe-anti-spoofing-type</i> — Specifies the PPPoE anti-spoof filtering.
<b>Values</b>	mac-sid, mac-sid-ip

### dhcp-client

<b>Syntax</b>	<b>dhcp-client</b>
<b>Context</b>	config>service>vprn>sub-if>grp-if>pppoe config>service>ies>sub-if>grp-if>pppoe
<b>Description</b>	This command enables the context to configure the PPPoE-to-DHCP options.

## ccag-use-origin-sap

<b>Syntax</b>	<b>[no] ccag-use-origin-sap</b>
<b>Context</b>	config>service>vprn>sub-if>grp-if>pppoe>dhcp-client config>service>ies>sub-if>grp-if>pppoe>dhcp-client
<b>Description</b>	This command enables the original VPLS SAP to be included in the circuit-id option to send to the DHCP server (in case this interface is connected to a VPLS by a CCA MDA). The <b>no</b> form of the command disables the feature.
<b>Default</b>	no ccag-use-origin-sap

## policy

<b>Syntax</b>	<b>policy</b> <i>ppp-policy-name</i> <b>no policy</b>
<b>Context</b>	config>service>vprn>sub-if>grp-if>pppoe config>service>ies>sub-if>grp-if>pppoe
<b>Description</b>	This command specifies the PPPoE policy on this interface.
<b>Parameters</b>	<i>ppp-policy-name</i> — Specifies the PPP policy name up to 32 characters in length.

## include-option

<b>Syntax</b>	<b>include-option string</b> <i>text</i> <b>no include-option</b>
<b>Context</b>	config>service>vprn>sub-if>grp-if>pppoe>dhcp-client config>service>ies>sub-if>grp-if>pppoe>dhcp-client
<b>Description</b>	This command allows the configuration of a vendor-specific sub-option string in a DHCP message.
<b>Parameters</b>	<b>string</b> <i>text</i> — Specifies a vendor-specific string inside-option 82, sub-option 9, sub-option5.

## sap-session-limit

<b>Syntax</b>	<b>sap-session-limit</b> <i>sap-session-limit</i> <b>no sap-session-limit</b>
<b>Context</b>	config>service>ies>sub-if>grp-if>pppoe config>service>vprn>sub-if>grp-if>pppoe
<b>Description</b>	This command specifies the number of PPPoE hosts per SAP allowed for this group-interface.
<b>Default</b>	1
<b>Parameters</b>	<i>sap-session-limit</i> — Specifies the number of PPPoE hosts per SAP allowed. Note that the operational maximum value may be smaller due to equipped hardware dependencies.
<b>Values</b>	1 — 131071

## session-limit

<b>Syntax</b>	<b>session-limit</b> <i>session-limit</i> <b>no session-limit</b>
<b>Context</b>	config>service>ies>sub-if>grp-if>pppoe config>service>vprn>sub-if>grp-if>pppoe config>service>ies>sub-if>pppoe config>service>vprn>sub-if>pppoe
<b>Description</b>	This command specifies the number of PPPoE hosts allowed for this group interface.
<b>Default</b>	1
<b>Parameters</b>	<i>session-limit</i> — Specifies the number of PPPoE hosts allowed. Note that the operational maximum value may be smaller due to equipped hardware dependencies.
<b>Values</b>	1 — 131071 1 — 262143 (retail subscriber interface)

## user-db

<b>Syntax</b>	<b>user-db</b> <i>local-user-db-name</i> <b>no user-db</b>
<b>Context</b>	config>service>ies>sub-if>grp-if>pppoe config>service>vprn>sub-if>grp-if>pppoe
<b>Description</b>	This command configures the local user database to use for PPP PAP/CHAP authentication
<b>Parameters</b>	<i>local-user-db-name</i> — Specifies the local user database name up to 32 characters in length.

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## RADIUS Attribute Commands

### acct-authentic

<b>Syntax</b>	<b>[no] acct-authentic</b>
<b>Context</b>	config>subscr-mgmt>auth-policy>include-radius-attribute config>subscr-mgmt>acct-plcy>include-radius-attribute
<b>Description</b>	This command enables the generation of the acct-authentic RADIUS attribute.

### acct-delay-time

<b>Syntax</b>	<b>[no] acct-delay-time</b>
<b>Context</b>	config>subscr-mgmt>auth-policy>include-radius-attribute config>subscr-mgmt>acct-plcy>include-radius-attribute
<b>Description</b>	This command enables the generation of the acct-delay-time RADIUS attribute.

### called-station-id

<b>Syntax</b>	<b>[no] called-station-id</b>
<b>Context</b>	config>subscr-mgmt>auth-policy>include-radius-attribute config>subscr-mgmt>acct-plcy>include-radius-attribute
<b>Description</b>	This command includes called station id attributes. The <b>no</b> form of the command excludes called station id attributes.

### calling-station-id

<b>Syntax</b>	<b>calling-station-id</b> <b>calling-station-id {mac   remote-id   sap-id   sap-string}</b> <b>no calling-station-id</b>
<b>Context</b>	config>service>ies>if>sap config>service>ies>sub-if>grp-if>sap config>service>vpls>sap config>service>vprn>if>sap config>service>vprn>sub-if>grp-if>sap config>subscr-mgmt>auth-plcy>include-radius-attribute config>subscr-mgmt>acct-plcy>include>include-radius-attribute

## Global Commands

<b>Description</b>	This command enables the inclusion of the calling-station-id attribute in RADIUS authentication requests and RADIUS accounting messages. The value inserted is set at the SAP level. If no <b>calling-station-id</b> value is set at the SAP level, the <b>calling-station-id</b> attribute will not be sent.
<b>Default</b>	no calling-station-id
<b>Parameters</b>	<b>mac</b> — Specifies that the mac-address will be sent. <b>remote-id</b> — Specifies that the remote-id will be sent. <b>sap-id</b> — Specifies that the sap-id will be sent. <b>sap-string</b> — Specifies that the value is the inserted value set at the SAP level. If no <b>calling-station-id</b> value is set at the SAP level, the <b>calling-station-id</b> attribute will not be sent.

## circuit-id

<b>Syntax</b>	<b>[no] circuit-id</b>
<b>Context</b>	config>subscr-mgmt>auth-policy>include-radius-attribute config>subscr-mgmt>acct-plcy>include-radius-attribute
<b>Description</b>	This command enables the generation of the agent-circuit-id for RADIUS.

## delegated-ipv6-prefix

<b>Syntax</b>	<b>[no] delegated-ipv6-prefix</b>
<b>Context</b>	config>subscr-mgmt>auth-policy>include-radius-attribute config>subscr-mgmt>acct-plcy>include-radius-attribute
<b>Description</b>	This command enables the generation of the delegated-ipv6-prefix RADIUS attribute.
<b>Default</b>	no delegated-ipv6-prefix

## framed-interface-id

<b>Syntax</b>	<b>[no] framed-interface-id</b>
<b>Context</b>	config>subscr-mgmt>auth-policy>include-radius-attribute config>subscr-mgmt>acct-plcy>include-radius-attribute
<b>Description</b>	This command enables the generation of the framed-interface-id RADIUS attribute.

## framed-ip-addr

<b>Syntax</b>	<b>[no] framed-ip-addr</b>
<b>Context</b>	config>subscr-mgmt>acct-plcy>include-radius-attribute

**Description** This command enables the inclusion of the framed-ip-addr attribute.

## framed-ip-netmask

**Syntax** [no] framed-ip-netmask

**Context** config>subscr-mgmt>acct-plcy>include-radius-attribute

**Description** This command enables the inclusion of the framed-ip-netmask attribute.

## framed-ipv6-prefix

**Syntax** [no] framed-ipv6-prefix

**Context** config>subscr-mgmt>auth-policy>include-radius-attribute  
config>subscr-mgmt>acct-plcy>include-radius-attribute

**Description** This command enables the generation of the framed-ipv6-prefix RADIUS attribute.

## ipv6-address

**Syntax** [no] framed-ipv6-address

**Context** config>subscr-mgmt>auth-policy>include-radius-attribute  
config>subscr-mgmt>acct-plcy>include-radius-attribute

**Description** This command enables the generation of the ipv6-address RADIUS attribute.

## mac-address

**Syntax** [no] mac-address  
config>subscr-mgmt>auth-policy>include-radius-attribute  
config>subscr-mgmt>acct-plcy>include-radius-attribute

**Description** This command enables the generation of the client MAC address RADIUS attribute.

## nas-identifier

**Syntax** [no] nas-identifier

**Context** config>subscr-mgmt>auth-policy>include-radius-attribute  
config>subscr-mgmt>acct-plcy>include-radius-attribute

**Description** This command enables the generation of the nas-identifier RADIUS attribute.

## nas-port

<b>Syntax</b>	<b>[no] nas-port <i>bit-specification binary-spec</i></b>		
<b>Context</b>	config>subscr-mgmt>auth-policy>include-radius-attribute config>subscr-mgmt>acct-plcy>include-radius-attribute		
<b>Description</b>	This command enables the generation of the nas-port RADIUS attribute. You enter decimal representation of a 32-bit string that indicates your port information. This 32-bit string can be compiled based on different information from the port (data types). By using syntax number-of-bits data-type you indicate how many bits from the 32 bits are used for the specific data type. These data types can be combined up to 32 bits in total. In between the different data types 0's and/or 1's as bits can be added. The <b>no</b> form of this command disables your nas-port configuration.		
<b>Parameters</b>	<i>bit-specification binary-spec</i> — Specifies the NAS-Port attribute		
	<b>Values</b>	binary-spec	<bit-specification> <binary-spec>
		bit-specification	0   1   <bit-origin>
		bit-origin	*<number-of-bits><origin>
		number-of-bits	1 — 32
		origin	o   i   s   m   p
			o  outer VLAN ID
			i  inner VLAN ID
			s  slot number
			m  MDA number
			p  port number or lag-id

**Sample**

```
*12o*12i00*2s*2m*2p => 0000 0000 0000 iiii iiii iiii 00ss mmpp
If outer vlan = 0 & inner vlan = 1 & slot = 3 & mda = 1 & port = 1
=> 0000 0000 0000 0000 0000 0001 0011 0101 => nas-port = 309
```

## nas-port-id

<b>Syntax</b>	<b>[no] nas-port-id [<i>prefix-string string</i>] [<i>suffix suffix-option</i>]</b>		
<b>Context</b>	config>subscr-mgmt>auth-policy>include-radius-attribute config>subscr-mgmt>acct-plcy>include-radius-attribute		
<b>Description</b>	This command enables the generation of the nas-port-id RADIUS attribute. Optionally, the value of this attribute (the SAP-id) can be prefixed by a fixed string and suffixed by the circuit-id or the remote-id of the client connection. If a suffix is configured, but no corresponding data is available, the suffix used will be 0/0/0/0/0.		
<b>Parameters</b>	<b>prefix-string <i>string</i></b> — Specifies that a user configurable string will be added to the RADIUS NAS port attribute, up to 8 characters in length.		
	<b>suffix <i>suffix-option</i></b> — Specifies the suffix type to be added to the RADIUS NAS port attribute.		
	<b>Values</b>	circuit-id, remote-id	



## nas-port-type

<b>Syntax</b>	<b>nas-port-type</b> <b>nas-port-type</b> [0..255] <b>no nas-port-type</b>
<b>Context</b>	config>subscr-mgmt>auth-plcy>include-radius-attribute config>subscr-mgmt>acct-plcy>include-radius-attribute
<b>Description</b>	This command enables the generation of the nas-port-type RADIUS attribute. If set to <b>nas-port-type</b> , the following will be sent: values: 32 (null-encap), 33 (dot1q), 34 (qinq), 15 (DHCP hosts). The <b>nas-port-type</b> can also be set as a specified value, with an integer from 0 to 255.  The <b>no</b> form of the command reverts to the default.
<b>Default</b>	no nas-port-type
<b>Parameters</b>	<b>0 — 255</b> — Specifies an enumerated integer that specifies the value that will be put in the RADIUS nas-port-type attribute.

## nat-port-range

<b>Syntax</b>	<b>[no] nat-port-range</b>
<b>Context</b>	config>subscr-mgmt>acct-plcy>include-radius-attribute
<b>Description</b>	This command enables the generation of the of nat-port-range attribute.
<b>Default</b>	no nat-port-range

## remote-id

<b>Syntax</b>	<b>[no] remote-id</b>
<b>Context</b>	config>subscr-mgmt>auth-policy>include-radius-attribute config>subscr-mgmt>acct-plcy>include-radius-attribute
<b>Description</b>	This command enables the generation of the agent-remote-id for RADIUS.

## sap-session-index

<b>Syntax</b>	<b>[no] sap-session-index</b>
<b>Context</b>	config>subscr-mgmt>auth-policy>include-radius-attribute
<b>Description</b>	This command includes sap-session-index attributes.  The <b>no</b> form of the command excludes sap-session-index attributes.

## sla-profile

<b>Syntax</b>	<b>[no] sla-profile</b>
<b>Context</b>	config>subscr-mgmt>acct-plcy>include-radius-attribute
<b>Description</b>	This command specifies that SLA profile attributes should be included into RADIUS accounting messages.

## sub-profile

<b>Syntax</b>	<b>[no] sub-profile</b>
<b>Context</b>	config>subscr-mgmt>acct-plcy>include-radius-attribute
<b>Description</b>	This command specifies that subscriber profile attributes should be included into RADIUS accounting messages.

## subscriber-id

<b>Syntax</b>	<b>[no] subscriber-id</b>
<b>Context</b>	config>subscr-mgmt>acct-plcy>include-radius-attribute
<b>Description</b>	This command specifies that subscriber ID attributes should be included into RADIUS accounting messages.

## radius-accounting-server

<b>Syntax</b>	<b>radius-accounting-server</b>
<b>Context</b>	config>app-assure>rad-acct-plcy config>aaa>l2tp-tunnel-acct-plcy
<b>Description</b>	This command creates the context for defining RADIUS accounting server attributes under a given session authentication policy.

## access-algorithm

<b>Syntax</b>	<b>access-algorithm {direct   round-robin}</b> <b>no access-algorithm</b>
<b>Context</b>	config>app-assure>rad-acct-plcy>server
<b>Description</b>	This command configures the algorithm used to access the list of configured RADIUS servers.
<b>Default</b>	direct

- Parameters**
- direct** — Specifies that the first server will be used as primary server for all requests, the second as secondary and so on.
  - round-robin** — Specifies that the first server will be used as primary server for the first request, the second server as primary for the second request, and so on. If the router gets to the end of the list, it starts again with the first server.

## retry

- Syntax** **retry** *count*
- Context** config>app-assure>rad-acct-plcy>server
- Description** This command configures the number of times the router attempts to contact the RADIUS server for authentication. Note that the retry count includes the first attempt.  
The **no** form of the command reverts to the default value.
- Default** 3 (the initial attempt as well as two retried attempts)
- Parameters** *count* — Specifies the retry count.
- Values** 1 — 10

## router

- Syntax** **router** *router-instance*  
**router** *service-name* *service-name*  
**no router**
- Context** config>app-assure>rad-acct-plcy>server
- Description** This command specifies the number of times the router attempts to contact the RADIUS server for authentication, if not successful the first time.  
The **no** form of the command reverts to the default value.

## server

- Syntax** **server** *server-index* **address** *ip-address* **secret** *key* [**hash** | **hash2**] [**port** *port*] [**create**]  
**no server** *server-index*
- Context** config>app-assure>rad-acct-plcy>server
- Description** This command adds a RADIUS server and configures the RADIUS server IP address, index, and key values.  
Up to five RADIUS servers can be configured at any one time. RADIUS servers are accessed in order from lowest to highest index for authentication requests until a response from a server is received. A higher indexed server is only queried if no response is received from a lower indexed server (which

implies that the server is not available). If a response from a server is received, no other RADIUS servers are queried.

The **no** form of the command removes the server from the configuration.

**Default** none

**Parameters** *server-index* — The index for the RADIUS server. The index determines the sequence in which the servers are queried for authentication requests. Servers are queried in order from lowest to highest index.

**Values** 1 — 16 (a maximum of 5 accounting servers)

*address ip-address* — The IP address of the RADIUS server. Two RADIUS servers cannot have the same IP address. An error message is generated if the server address is a duplicate.

**secret key** — **Values** The secret key to access the RADIUS server. This secret key must match the password on the RADIUS server.

*secret-key* — A string up to 20 characters in length.

*hash-key* — A string up to 33 characters in length.

*hash2-key* — A string up to 55 characters in length.

**hash** — Specifies the key is entered in an encrypted form. If the hash parameter is not used, the key is assumed to be in a non-encrypted, clear text form. For security, all keys are stored in encrypted form in the configuration file with the hash parameter specified.

**hash2** — Specifies the key is entered in a more complex encrypted form. If the hash2 parameter is not used, the less encrypted hash form is assumed.

*port* — Specifies the UDP port number on which to contact the RADIUS server for authentication.

**Values** 1 — 65535

## source-address-range

**Syntax** **source-address-range** *start-ip-address end-ip-address*  
**no source-address**

**Context** config>app-assure>rad-acct-plcy>server

**Description** This command configures the source address range of the RADIUS messages.  
The **no** form of the command reverts to the default value.

**Default** systemIP address

**Parameters** *start-ip-address* — Specifies the start of the the range of source addresses to be used for NAT RADIUS accounting.

*end-ip-address* — Specifies the end of the the range of source addresses to be used for NAT RADIUS accounting.

## timeout

**Syntax** **timeout** *seconds*

<b>Context</b>	config>app-assure>rad-acct-plcy>server
<b>Description</b>	This command configures the number of seconds the router waits for a response from a RADIUS server. The <b>no</b> form of the command reverts to the default value.
<b>Default</b>	5
<b>Parameters</b>	<i>seconds</i> — Specifies the time the router waits for a response from a RADIUS server. <b>Values</b> 1 — 90

---

# Show Commands

## ppp-policy

- Syntax** `ppp-policy [ppp-policy-name [association]]`
- Context** `show>subscr-mgmt`
- Description** This command displays PPP policy information.
- Parameters** *ppp-policy-name* — Specifies an existing PPP policy  
*association* — Displays the object the PPP policy is associated.

### Sample Output

```
*A:ALA-49>show>subscr-mgmt# pppoe-policy policy1
=====
PPPoE Policy "policy1"
=====
Last Mgmt Change      : 11/16/2003 20:06:39      PPP-mtu                : N/A
Keepalive Interval    : 10s                Keepalive Multiplier   : 1
Disable AC-Cookies    : No                    PADO Delay             : 0msec
Max Sessions-Per-Mac  : 63                    Reply-On-PADT          : No

-----
PPP Custom Options
-----
Protocol Number Value
-----
No options configured.
=====

*A:ALA-49>show>subscr-mgmt# pppoe-policy policy1 association
=====
PPPoE Policy "policy1"
=====
-----
Interface Associations
-----
Service-Id : 20 (IES)
- grp_pppoe1
- grp_pppoe2
- grp_pppoe3
=====
*A:ALA-49>show>subscr-mgmt#
```

## pppoe

<b>Syntax</b>	<b>pppoe</b>
<b>Context</b>	show>service>id
<b>Description</b>	This command enables the context to display PPPoE information.

## session

<b>Syntax</b>	<b>session [interface <i>ip-int-name</i>   <i>ip-address</i>   sap <i>sap-id</i>] [session-id <i>session-id</i>] [mac <i>ieee-address</i>] [ip-address <i>ip-address[/mask]</i>] [port <i>port-id</i>] [no-inter-dest-id   inter-dest-id <i>intermediate-destination-id</i>] [detail   statistics]</b> <b>session <i>l2tp-connection-id connection-id</i> [detail statistics]</b>
<b>Context</b>	show>service>id>pppoe
<b>Description</b>	This command displays PPPoE session information.
<b>Parameters</b>	<b>interface <i>ip-int-name</i></b> — <i>ip-address</i> — Displays information about the IP address of the PPPoE session. <b>sap <i>sap-id</i></b> — Displays information about the specified SAP ID. <b>session-id <i>session-id</i></b> — Displays information about the ID of the PPPoE session. <b>mac <i>ieee-address</i></b> — Displays information about the MAC address of the PPPoE session. <b>port <i>port-id</i></b> — Displays information about about the specified port ID. <b>no-inter-dest-id</b> — <b>inter-dest-id <i>intermediate-destination-id</i></b> — Displays information about the specified intermediate destination ID. <b>detail</b> — Displays detailed information. <b>statistics</b> — Displays statistics about the PPPoE session.s

## Sample Output

```
*A:ALA-49#show service id 20 pppoe session
=====
PPPoE sessions for svc-id 20
=====
Sap Id           Mac Address      Sid Up Time      IP Address
-----
1/1/3:200       00:00:00:00:00:03 1   1d 00:48:39     20.0.0.101
1/1/3:300       00:00:00:00:00:05 1   0d 00:01:08     30.0.0.119
-----
Number of sessions : 2
=====
*A:ALA-49#

*A:ALA-49# show service id 20 pppoe session ip-address 20.0.0.101 detail
```

## Show Commands

```
=====
PPPoE sessions for svc-id 20
=====
Sap Id           Mac Address      Sid Up Time      IP Address
-----
1/1/3:200       00:00:00:00:00:03 1    1d 00:49:46     20.0.0.101

LCP State       : Opened
IPCP State      : Opened
PPP MTU         : 1492
PPP Auth-Protocol : PAP
PPP User-Name   : user4@domain1

Subscriber-interface : sub_pppoe
Group-interface     : grp_pppoe2

Subscriber Origin   : RADIUS
Strings Origin      : RADIUS
IPCP Info Origin    : DHCP

Subscriber         : "radius_papchap4"
Sub-Profile-String : "sub1"
SLA-Profile-String : "sla1"
ANCP-String        : ""
Int-Dest-Id        : ""
App-Profile-String : ""

Primary DNS        : N/A
Secondary DNS      : N/A
Primary NBNS       : N/A
Secondary NBNS     : N/A

Circuit-Id        : 2
Remote-Id         :

Session-Timeout   : N/A
=====
Number of sessions : 1
=====
*A:ALA-49#

*A:ALA-49# show service id 20 pppoe session ip-address 20.0.0.101 statistics
=====
PPPoE sessions for svc-id 20
=====
Sap Id           Mac Address      Sid Up Time      IP Address
-----
1/1/3:200       00:00:00:00:00:03 1    1d 00:50:39     20.0.0.101

Packet Type      Received         Transmitted
-----
LCP Configure-Request  1                2
LCP Configure-Ack      1                1
LCP Configure-Nak      1                0
LCP Configure-Reject   0                0
LCP Terminate-Request  0                0
LCP Terminate-Ack      0                0
LCP Code-Reject        0                0
LCP Echo-Request      8927             866
LCP Echo-Reply        866              8927
```



```

LCP Protocol-Reject      0          0
LCP Discard-Request     0          0
-----
PAP Authenticate-Request 1          -
PAP Authenticate-Ack    -          1
PAP Authenticate-Nak    -          0
-----
CHAP Challenge          -          0
CHAP Response           0          -
CHAP Success            -          0
CHAP Failure            -          0
-----
IPCP Configure-Request  2          1
IPCP Configure-Ack      1          1
IPCP Configure-Nak      0          1
IPCP Configure-Reject   0          0
IPCP Terminate-Request  0          0
IPCP Terminate-Ack     0          0
IPCP Code-Reject        0          0
-----
Unknown Protocol        0          -

```

Number of sessions : 1

\*A:ALA-49#

\*A:Dut-C# show service id 2000 pppoe session detail

=====  
 PPPoE sessions for svc-id 2000  
 =====

Sap Id	Mac Address	Sid	Up Time	Type
IP/L2TP-Id/Interface-Id				
2/1/5:2000	00:01:00:00:04:15	1	0d 00:05:07	Local
200.1.5.22				

```

LCP State      : Opened
IPCP State     : Opened
IPv6CP State   : Initial
PPP MTU        : 1492
PPP Auth-Protocol : None
PPP User-Name  : (Not Specified)

```

```

Subscriber-interface : ies-2000-200.1.1.1
Group-interface      : grp-Vprn-2/1/5

```

```

Subscriber Origin : RADIUS
Strings Origin    : RADIUS
IPCP Info Origin  : RADIUS
IPv6CP Info Origin : None

```

```

Subscriber      : "hpolSub43"
Sub-Profile-String : "hpolSubProf2"
SLA-Profile-String : "hpolSlaProf1"
ANCP-String     : ""
Int-Dest-Id     : "2000"
App-Profile-String : ""
Category-Map-Name : ""

```

```

Primary DNS      : N/A

```

## Show Commands

```
Secondary DNS      : N/A
Primary NBNS      : N/A
Secondary NBNS    : N/A
Address-Pool      : N/A

IPv6 Prefix       : N/A
IPv6 Del.Pfx.    : N/A
Primary IPv6 DNS  : N/A
Secondary IPv6 DNS: N/A

Circuit-Id       : circuit 0
Remote-Id        : remote 00-00-00-00-00-00-eth0-2
Service-Name     :

Session-Timeout  : N/A
RADIUS Class     :
RADIUS User-Name : 00:01:00:00:04:15
Data link       : aal5
Encaps 1        : notAvailable
Encaps 2        : pppoaLlc
-----
Overrides
-----
Direction Type      Key      PIR      CIR      CBS      MBS
-----
Egress  Agg-Rate-Limit N/A      24125940 N/A      N/A      N/A
-----
No. of Overrides: 1
-----
Number of sessions : 1
=====
*A:Dut-C#
```

## statistics

**Syntax** **statistics** **[{sap sap-id | interface ip-int-name | ip-address}]**

**Context** show>service>id>pppoe

**Description** This command displays PPPoE statistics.

**Parameters** **sap sap-id** — Displays information for the specified SAP. See [Common Service Commands on page 1510](#) for *sap-id* command syntax.

**interface ip-int-name** — Displays information about the specified interface.

**ip-address** — Displays information about the specified IP address.

### Sample Output

```
*A:ALA-49# show service id 20 pppoe statistics
```

```
=====
PPPoE statistics for IES service 20
=====
```

```
Packet Type      Received      Transmitted
-----
```

```

PADI                2                -
PADO                -                2
PADR                2                -
PADS                -                2
PADT                0                0
session             9838             9839
-----

```

```

Drop Counters
-----

```

```

Rx Invalid Version  : 0
Rx Invalid Type     : 0
Rx Invalid Code     : 0
Rx Invalid Session  : 0
Rx Invalid Length   : 0
Rx Invalid Tags     : 0
Rx Invalid AC-Cookie : 0
Rx Dropped          : 0
=====

```

```

*A:ALA-49#

```

## summary

<b>Syntax</b>	<b>summary</b>
<b>Context</b>	show>service>id>pppoe
<b>Description</b>	This command displays PPPoE summary information

## Clear Commands

### pppoe

- Syntax**     **pppoe**
- Context**     clear>service>id
- Description**     This command enables the context to clear PPPoE-related data for the specified service.

### session

- Syntax**     **session all [no-padt]**  
**session {interface *ip-int-name* | *ip-address* | sap *sap-id*} [mac *ieee-address*] [session-id *session-id*] [ip-address *ip-address[/mask]*] [port *port-id*] [no-inter-dest-id | inter-dest-id *intermediate-destination-id*] [no-padt]**
- Context**     clear>service>id>ppoe
- Description**     This command clears PPPoE sessions.

### statistics

- Syntax**     **statistics [{sap *sap-id* | interface *ip-int-name* | *ip-address*}**
- Context**     clear>service>id>ppoe
- Description**     This command clears PPPoE statistics.

---

## Debug Commands

### ppp

<b>Syntax</b>	<b>[no] ppp</b>
<b>Context</b>	debug>service>id
<b>Description</b>	This command enables and configures PPP debugging.

### event

<b>Syntax</b>	<b>[no] event</b>
<b>Context</b>	debug>service>id>ppp
<b>Description</b>	This command enables debugging for specific PPPoE events.

### dhcp-client

<b>Syntax</b>	<b>dhcp-client [terminate-only]</b> <b>no dhcp-client</b>
<b>Context</b>	debug>service>id>ppp>event
<b>Description</b>	This command enables debugging for specific DHCP client events.

### ppp

<b>Syntax</b>	<b>ppp [terminate-only]</b> <b>no ppp</b>
<b>Context</b>	debug>service>id>ppp>event
<b>Description</b>	This command enables debugging for specific PPP events.

### mac

<b>Syntax</b>	<b>[no] mac <i>ieee-address</i></b>
<b>Context</b>	debug>service>id>ppp
<b>Description</b>	This command shows PPP packets for a particular MAC address.

## packet

<b>Syntax</b>	<b>[no] packet</b>
<b>Context</b>	debug>service>id>ppp
<b>Description</b>	This command enables debugging for specific PPPoE packets.

## detail-level

<b>Syntax</b>	<b>detail-level {low   medium   high}</b> <b>no detail-level</b>
<b>Context</b>	debug>service>id>ppp>packet
<b>Description</b>	This command configures the PPP packet tracing detail level.

## dhcp-client

<b>Syntax</b>	<b>[no] dhcp-client</b>
<b>Context</b>	debug>service>id>ppp>packet
<b>Description</b>	This command enables debugging for specific DHCP client packets.

## discovery

<b>Syntax</b>	<b>discovery [padi] [pado] [padr] [pads] [padt]</b> <b>no discovery</b>
<b>Context</b>	debug>service>id>ppp>packet
<b>Description</b>	This command enables debugging for specific PPP discovery packets.

## mode

<b>Syntax</b>	<b>mode {dropped-only   ingr-and-dropped   egr-ingr-and-dropped}</b> <b>no mode</b>
<b>Context</b>	debug>service>id>ppp>packet
<b>Description</b>	This command configures the PPP packet tracing mode.

## ppp

<b>Syntax</b>	<b>ppp</b> [lcp] [pap] [chap] [ipcp] <b>no ppp</b>
<b>Context</b>	debug>service>id>ppp>packet
<b>Description</b>	This command enables debugging for specific PPP packets

## sap

<b>Syntax</b>	<b>[no] sap</b> <i>sap-id</i>
<b>Context</b>	debug>service>id>ppp
<b>Description</b>	This command displays PPP packets for a particular SAP.

---

## Tools Commands

### tools

<b>Syntax</b>	<b>tools</b>
<b>Context</b>	<root>
<b>Description</b>	The context to enable useful tools for debugging purposes.
<b>Default</b>	none
<b>Parameters</b>	<b>dump</b> — Enables dump tools for the various protocols. <b>perform</b> — Enables tools to perform specific tasks.

### perform

<b>Syntax</b>	<b>perform</b>
<b>Context</b>	tools
<b>Description</b>	This command enables the context to enable tools to perform specific tasks.
<b>Default</b>	none

### subscriber-mgmt

<b>Syntax</b>	<b>subscriber-mgmt</b>
<b>Context</b>	tools>perform
<b>Description</b>	This command enables tools to control subscriber management.

### local-user-db

<b>Syntax</b>	<b>local-user-db</b> <i>local-user-db-name</i>
<b>Context</b>	tools>perform>subscriber-mgmt
<b>Description</b>	This command enables tools for controlling the local user database.
<b>Parameters</b>	<i>local-user-db-name</i> — [32 chars max]



## dhcp

<b>Syntax</b>	<b>dhcp</b>
<b>Context</b>	tools>perform>subscriber-mgmt>local-user-db
<b>Description</b>	This command contains the tools used for controlling DHCP entries in the local user database.

## host-lookup

<b>Syntax</b>	<b>host-lookup</b> [ <b>mac</b> <i>ieee-address</i> ] [ <b>remote-id</b> <i>remote-id</i> ] [ <b>sap-id</b> <i>sap-id</i> ] [ <b>service-id</b> <i>service-id</i> ] [ <b>string</b> <i>vso-string</i> ] [ <b>system-id</b> <i>system-id</i> ] [ <b>option60</b> <i>hex-string</i> ] [ <b>circuit-id</b> <i>circuit-id</i>   <b>circuit-id-hex</b> <i>circuit-id-hex</i> ]
<b>Context</b>	tools>perform>subscriber-mgmt>local-user-db>dhcp
<b>Description</b>	This command performs a lookup in the local user database.
<b>Parameters</b>	<p><b>mac</b> <i>ieee-address</i> — Specifies the 48-bit MAC address for the static ARP in the form aa:bb:cc:dd:ee:ff or aa-bb-cc-dd-ee-ff where aa, bb, cc, dd, ee, and ff are hexadecimal numbers. Allowed values are any non-broadcast, non-multicast MAC and non-IEEE reserved MAC addresses.</p> <p><i>remote-id</i> — Specifies what information goes into the remote-id sub-option in the DHCP relay packet.</p> <p><b>Values</b> Up to 255 characters maximum</p> <p><b>sap-id</b> — Specifies a SAP identifier to be used.</p> <p><i>service-id</i> — Specifies an existing subscriber service ID.</p> <p><b>Values</b> 1 — 2147483647</p> <p><i>vso-string</i> — Specifies a vendor-specific option string.</p> <p><b>Values</b> Up to 255 characters maximum</p> <p><i>system-id</i> — Specifies the system ID.</p> <p><b>Values</b> Up to 255 characters maximum</p> <p><i>hex-string</i> — [0x0..0xFFFFFFFF.. (max 64 hex nibbles)]</p> <p><i>circuit-id</i> — Specifies the circuit-id string.</p> <p><b>Values</b> Up to 127 characters maximum</p> <p><i>circuit-id-hex</i> — [0x0..0xFFFFFFFF.. (max 254 hex nibbles)]</p>

## ppp

<b>Syntax</b>	<b>ppp</b>
<b>Context</b>	tools>perform>subscriber-mgmt>local-user-db

## Tools Commands

**Description** This command contains the tools used to control PPP entries in the local user database.

## authentication

**Syntax** **authentication** *ppp-user-name* [**password** *password*]

**Context** tools>perform>subscriber-mgmt>local-user-db>ppp

**Description** This command authenticates PPP user name. As local user database PAP/CHAP authentication can only be used when the local user database is connected to the PPPoE/PPP node under the group interface, the user lookup will be performed with match-list username.

**Parameters** *ppp-user-name* — Specifies the PPP username.  
*password* — Specifies the password of this host up to 32 characters in length.

## host-lookup

**Syntax** **host-lookup** [**mac** *ieee-address*] [**remote-id** *remote-id*] [**user-name** *user-name*] [**circuit-id** *circuit-id* | **circuit-id-hex** *circuit-id-hex*]

**Context** tools>perform>subscriber-mgmt>local-user-db>ppp

**Description** This command performs a lookup in the local user database.

**Parameters** *ieee-address* — xx:xx:xx:xx:xx:xx or xx-xx-xx-xx-xx-xx  
*remote-id* — [255 chars max]  
*user-name* — Specifies the PPPoE username.  
*circuit-id* — [127 chars max]  
*circuit-id-hex* — [0x0..0xFFFFFFFF.. (max 254 hex nibbles)]

## edit-ppp-session

**Syntax** **edit-ppp-session sap** *sap-id* **ip** *ip-address* [**subscriber** *sub-ident-string*] [**sub-profile-string** *sub-profile-string*] [**sla-profile-string** *sla-profile-string*] [**inter-dest-id** *intermediate-destination-id*] [**ancp-string** *ancp-string*] [**app-profile-string** *app-profile-string*] [**user-name** *user-name*]  
**edit-ppp-session svc-id** *service-id* **ip** *ip-address* [**subscriber** *sub-ident-string*] [**sub-profile-string** *sub-profile-string*] [**sla-profile-string** *sla-profile-string*] [**app-profile-string** *app-profile-string*] [**inter-dest-id** *intermediate-destination-id*] [**ancp-string** *ancp-string*][**user-name** *user-name*]

**Context** tools>perform>subscriber-mgmt

**Description** This command modifies PPP session information.

<b>Parameters</b>	<i>sap-id:</i>	null	[ <i>port-id</i>   <i>bundle-id</i>   <i>bpgrp-id</i>   <i>lag-id</i>   <i>aps-id</i> ]
			<i>dot1q</i> [ <i>port-id</i>   <i>bundle-id</i>   <i>bpgrp-id</i>   <i>lag-id</i>   <i>aps-id</i> ]: <i>qtag1</i>
			<i>qinq</i> [ <i>port-id</i>   <i>bundle-id</i>   <i>bpgrp-id</i>   <i>lag-id</i> ]: <i>qtag1.qtag2</i>
			<i>atm</i> [ <i>port-id</i>   <i>aps-id</i> ][: <i>vpi/vci</i>   <i>vpi</i>   <i>vpi1.vpi2</i> ]
			<i>frame</i> [ <i>port-id</i>   <i>aps-id</i> ]: <i>dldci</i>
			<i>cisco-hdlc</i> <i>slot/mda/port.channel</i>
			<i>cem</i> <i>slot/mda/port.channel</i>
			<i>ima-grp</i> [ <i>bundle-id</i> [: <i>vpi/vci</i>   <i>vpi</i>   <i>vpi1.vpi2</i> ]
			<i>port-id</i> <i>slot/mda/port</i> [. <i>channel</i> ]
			<i>bundle-id</i> <i>bundle-type-slot/mda.bundle-num</i>
			<i>bundle</i> keyword
			<i>type</i> ima, ppp
			<i>bundle-num1</i> — 256
			<i>bpgrp-id</i> <i>bpgrp-type-bpgrp-num</i>
			<i>bpgrp</i> keyword
			<i>type</i> ima, ppp
			<i>bpgrp-num1</i> — 1280
			<i>aps-id</i> <i>aps-group-id</i> [. <i>channel</i> ]
			<i>aps</i> keyword
			<i>group-id</i> 1 — 64
	<i>ccag-id</i> <i>ccag-id.path-id</i> [ <i>cc-type</i> ]: <i>cc-id</i>		
	<i>ccag</i> keyword		
	<i>id</i> 1 — 8		
	<i>path-id</i> a, b		
	<i>cc-type</i> .sap-net, .net-sap		
	<i>cc-id</i> 0 — 4094		
	<i>lag-id</i> <i>lag-id</i>		
	<i>lag</i> keyword		
	<i>id</i> 1 — 800		
	<i>qtag1</i> 0 — 4094		
	<i>qtag2</i> *, 0 — 4094		
	<i>vpi</i> NNI: 0 — 4095		
	UNI: 0 — 255		
	<i>vci</i> 1, 2, 5 — 65535		
	<i>dldci</i> 16 — 1022		

*ip-address* — Displays information for the specified IP address.

*sub-ident-string* — Displays information for the specified subscriber identification profile.

*sub-profile-string* — Displays information for the specified subscriber profile.

*service-id* — Specifies the ID that uniquely identifies a service.

**Values** 1 — 2147483647

*intermediate-destination-id* — Specifies the intermediate destination identifier, up to 32 characters in length.

**ancp-string** *ancp-string* — Specifies the ASCII string of the DSLAM circuit ID name.

*app-profile-string* — Displays information about the specified application profile.

## eval-lease-state

<b>Syntax</b>	<b>eval-lease-state</b> [svc-id service-id] [sap sap-id] [subscriber sub-ident-string] [ip ip-address]			
<b>Context</b>	tools>perform>subscriber-mgmt			
<b>Description</b>	This command evaluates lease state.			
<b>Parameters</b>	<table> <tr> <td><i>sap-id:</i></td> <td>           null [port-id   bundle-id   bpgrp-id   lag-id   aps-id]            dot1q [port-id   bundle-id   bpgrp-id   lag-id   aps-id]:qtag1            qinq [port-id   bundle-id   bpgrp-id   lag-id]:qtag1.qtag2            atm [port-id   aps-id][:vpi/vci vpi  vpi1.vpi2]            frame [port-id   aps-id]:dlci            cisco-hdlc slot/mda/port.channel            cem slot/mda/port.channel            ima-grp [bundle-id[:vpi/vci vpi vpi1.vpi2]            port-id slot/mda/port[.channel]            bundle-id bundle-type-slot/mda.bundle-num            bundle keyword              type ima, ppp              bundle-num1 — 256            bpgrp-id bpgrp-type-bpgrp-num            bpgrp keyword              type ima, ppp              bpgrp-num1 — 1280            aps-id aps-group-id[.channel]            aps keyword              group-id 1 — 64            ccag-id ccag-id.path-id[cc-type]:cc-id            ccag keyword              id 1 — 8              path-id a, b              cc-type .sap-net, .net-sap              cc-id 0 — 4094            lag-id lag-id            lag keyword              id 1 — 800            qtag1 0 — 4094            qtag2 *, 0 — 4094            vpi NNI: 0 — 4095              UNI: 0 — 255            vci 1, 2, 5 — 65535            dlci 16 — 1022         </td> </tr> </table>	<i>sap-id:</i>	null [port-id   bundle-id   bpgrp-id   lag-id   aps-id] dot1q [port-id   bundle-id   bpgrp-id   lag-id   aps-id]:qtag1 qinq [port-id   bundle-id   bpgrp-id   lag-id]:qtag1.qtag2 atm [port-id   aps-id][:vpi/vci vpi  vpi1.vpi2] frame [port-id   aps-id]:dlci cisco-hdlc slot/mda/port.channel cem slot/mda/port.channel ima-grp [bundle-id[:vpi/vci vpi vpi1.vpi2] port-id slot/mda/port[.channel] bundle-id bundle-type-slot/mda.bundle-num bundle keyword type ima, ppp bundle-num1 — 256 bpgrp-id bpgrp-type-bpgrp-num bpgrp keyword type ima, ppp bpgrp-num1 — 1280 aps-id aps-group-id[.channel] aps keyword group-id 1 — 64 ccag-id ccag-id.path-id[cc-type]:cc-id ccag keyword id 1 — 8 path-id a, b cc-type .sap-net, .net-sap cc-id 0 — 4094 lag-id lag-id lag keyword id 1 — 800 qtag1 0 — 4094 qtag2 *, 0 — 4094 vpi NNI: 0 — 4095 UNI: 0 — 255 vci 1, 2, 5 — 65535 dlci 16 — 1022	
<i>sap-id:</i>	null [port-id   bundle-id   bpgrp-id   lag-id   aps-id] dot1q [port-id   bundle-id   bpgrp-id   lag-id   aps-id]:qtag1 qinq [port-id   bundle-id   bpgrp-id   lag-id]:qtag1.qtag2 atm [port-id   aps-id][:vpi/vci vpi  vpi1.vpi2] frame [port-id   aps-id]:dlci cisco-hdlc slot/mda/port.channel cem slot/mda/port.channel ima-grp [bundle-id[:vpi/vci vpi vpi1.vpi2] port-id slot/mda/port[.channel] bundle-id bundle-type-slot/mda.bundle-num bundle keyword type ima, ppp bundle-num1 — 256 bpgrp-id bpgrp-type-bpgrp-num bpgrp keyword type ima, ppp bpgrp-num1 — 1280 aps-id aps-group-id[.channel] aps keyword group-id 1 — 64 ccag-id ccag-id.path-id[cc-type]:cc-id ccag keyword id 1 — 8 path-id a, b cc-type .sap-net, .net-sap cc-id 0 — 4094 lag-id lag-id lag keyword id 1 — 800 qtag1 0 — 4094 qtag2 *, 0 — 4094 vpi NNI: 0 — 4095 UNI: 0 — 255 vci 1, 2, 5 — 65535 dlci 16 — 1022			
	<i>ip-address</i> — a.b.c.d			
	<i>sub-ident-string</i> — [32 chars max]			
	<i>service-id</i> — [1..2147483647]			