# SRC PE Software

## CLI Command Reference, Volume 1

Release
4.12.x

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*SRC PE Software  CLI Command Reference, Volume 1*
Release 4.12.x


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The information in this document is current as of the date on the title page.

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# About the Documentation



## SRC Documentation and Release Notes

For a list of related SRC documentation, see https://www.juniper.net/documentation/.

If the information in the latest *SRC Release Notes* differs from the information in the SRC guides, follow the *SRC Release Notes*.

## Audience

This documentation is intended for experienced system and network specialists working with routers running Junos OS and JunosE software in an Internet access environment. We assume that readers know how to use the routers, directories, and RADIUS servers that they will deploy in their SRC networks. If you are using the SRC software in a cable network environment, we assume that you are familiar with the PacketCable Multimedia Specification (PCMM) as defined by Cable Television Laboratories, Inc. (CableLabs) and with the Data-over-Cable Service Interface Specifications (DOCSIS) 1.1 protocol. We also assume that you are familiar with operating a multiple service operator (MSO) multimedia-managed IP network.

## Documentation Conventions

Table 1 on page vi defines the notice icons used in this guide. Table 2 on page vi defines text conventions used throughout this documentation.

*Table 1: Notice Icons*

| Icon | Meaning | Description |
|---|---|---|
| | Informational note | Indicates important features or instructions. |
| | Caution | Indicates a situation that might result in loss of data or hardware damage. |
| | Warning | Alerts you to the risk of personal injury or death. |
| | Laser warning | Alerts you to the risk of personal injury from a laser. |
| | Tip | Indicates helpful information. |
| | Best practice | Alerts you to a recommended use or implementation. |

*Table 2: Text Conventions*

| Convention | Description | Examples |
|---|---|---|
| **Bold text like this** | • Represents keywords, scripts, and tools in text.<br>• Represents a GUI element that the user selects, clicks, checks, or clears. | • Specify the keyword **exp-msg**.<br>• Run the **install.sh** script.<br>• Use the **pkgadd** tool.<br>• To cancel the configuration, click **Cancel**. |
| **Bold text like this** | Represents text that the user must type. | **user@host# set cache-entry-age *cache-entry-age*** |
| `Fixed-width text like this` | Represents information as displayed on your terminal's screen, such as CLI commands in output displays. | `nic-locators {`<br>`  login {`<br>`  resolution {`<br>`  resolver-name /realms/ login/A1;`<br>`  key-type LoginName;`<br>`  value-type SaeId;`<br>`  }` |

*Table 2: Text Conventions (continued)*

| | | |
|---|---|---|
| **Regular sans serif typeface** | • Represents configuration statements.<br>• Indicates SRC CLI commands and options in text.<br>• Represents examples in procedures.<br>• Represents URLs. | • **system ldap server{ stand-alone;**<br>• Use the **request sae modify device failover** command with the **force** option<br>• **user@host# . . .**<br>• **https://www.juniper.net/documentation/software/management/src/api-index.html** |
| ***Italic sans serif typeface*** | Represents variables in SRC CLI commands. | **user@host# set local-address *local-address*** |
| Angle brackets | In text descriptions, indicate optional keywords or variables. | Another runtime variable is <gfwif>. |
| Key name | Indicates the name of a key on the keyboard. | Press Enter. |
| Key names linked with a plus sign (+) | Indicates that you must press two or more keys simultaneously. | Press Ctrl + b. |
| *Italic typeface* | • Emphasizes words.<br>• Identifies book names.<br>• Identifies distinguished names.<br>• Identifies files, directories, and paths in text but not in command examples. | • There are two levels of access: *user* and *privileged*.<br>• *SRC PE Getting Started Guide*<br>• *o=Users, o=UMC*<br>• The */etc/default.properties* file. |
| Backslash | At the end of a line, indicates that the text wraps to the next line. | Plugin.radiusAcct-1.class=\<br>net.juniper.smgt.sae.plugin\<br>RadiusTrackingPluginEvent |
| Words separated by the \| symbol | Represent a choice to select one keyword or variable to the left or right of this symbol. (The keyword or variable may be either optional or required.) | diagnostic \| line |

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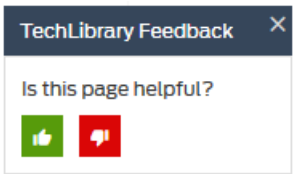
We encourage you to provide feedback, comments, and suggestions so that we can improve the documentation. You can provide feedback by using either of the following methods:

- Online feedback system—Click TechLibrary Feedback, on the lower right of any page on the Juniper Networks TechLibrary site, and do one of the following:




  - Click the thumbs-up icon if the information on the page was helpful to you.

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Technical product support is available through the Juniper Networks Technical Assistance Center (JTAC). If you are a customer with an active J-Care or Partner Support Service support contract, or are covered under warranty, and need post-sales technical support, you can access our tools and resources online or open a case with JTAC.

- JTAC policies—For a complete understanding of our JTAC procedures and policies, review the *JTAC User Guide* located at https://www.juniper.net/us/en/local/pdf/resource-guides/7100059-en.pdf.
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- Find solutions and answer questions using our Knowledge Base: https://kb.juniper.net/
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- Open a case online in the CSC Case Management tool: https://www.juniper.net/cm/

To verify service entitlement by product serial number, use our Serial Number Entitlement (SNE) Tool: https://entitlementsearch.juniper.net/entitlementsearch/

### Opening a Case with JTAC

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- Use the Case Management tool in the CSC at https://www.juniper.net/cm/.
- Call 1-888-314-JTAC (1-888-314-5822 toll-free in the USA, Canada, and Mexico).

For international or direct-dial options in countries without toll-free numbers, see https://www.juniper.net/support/requesting-support.html.

# SRC CLI

This document summarizes the SRC command-line interface (SRC CLI).

Configuration statements and operational commands are listed in alphabetical order for the following components in the *SRC PE CLI Command Reference, Volume 1*:

- CLI and System
- Juniper Networks Database
- SAE
- Network Information Collector (NIC)
- Subscriber Information Collector (SIC)
- Volume Tracking Application (VTA)
- SNMP Agent
- SRC Admission Control Plug-In (SRC ACP)
- SRC License Management
- COS Naming Service

Configuration statements and operational commands are listed in alphabetical order for the following components in the *SRC PE CLI Command Reference, Volume 2*:

- Service CLI
- Policy CLI
- Subscriber CLI
- Redirect Server
- External Subscriber Monitor
- Application Server
- Dynamic Service Activator
- IP Multimedia Subsystem (IMS)
- Diameter Application
- Sessions Database
- Third-Generation Partnership Project Gateway (3GPP)
- 3GPP Gy

# CLI and System

The following table summarizes the SRC command-line interface (SRC CLI) for controlling and using the SRC CLI environment and for managing the C Series Controller. Configuration statements and operational commands are listed in alphabetical order.

- Configuration commands and statements
- Filter Commands
- Operational Commands

| CLI and System |
|---|
| Configuration Commands and Statements |
| commit |
| configuration-wizard |
| copy |
| delete |
| display set |
| edit |
| exit |
| help |
| help configuration |
| history |
| insert |
| interfaces |
| interfaces name group |
| interfaces name tunnel |
| interfaces name unit |
| interfaces name unit unit-number family inet |
| interfaces name unit unit-number family inet6 address |
| load factory-default |
| load merge |
| load override |
| load replace |
| load set |

| |
|---|
| system ntp peer |
| system ntp server |
| system radius-server |
| system schedule |
| system services |
| system services editor |
| system services editor policy-editor |
| system services netconf ssh |
| system services ssh |
| system services web-management http |
| system services web-management https |
| system services web-management logger |
| system services web-management logger name file |
| system services web-management logger name syslog |
| system static-host-mapping |
| system syslog file |
| system syslog file file-name |
| system syslog host |
| system syslog host log-host-name |
| system syslog user |
| system syslog user user-name |
| system tacplus-server |
| top |
| up |
| Filter Commands |
| compare |
| count |
| display (changed \| running \| hierarchy) |
| display level |
| display xml |
| except |

| |
|---|
| request ipmi power |
| request network discovery |
| request security enroll |
| request security generate-certificate-request |
| request security generate-self-signed-certificate |
| request security get-ca-certificate |
| request security import-certificate |
| request support information |
| request system delete |
| request system generate-ssh-key |
| request system halt |
| request system install |
| request system prepare-partitions |
| request system reboot |
| request system remove-ssh-key |
| request system restore |
| request system snapshot |
| request system uninstall |
| request system upgrade |
| restart |
| set cli complete-on-space |
| set cli directory |
| set cli language |
| set cli level |
| set cli password |
| set cli prompt |
| set cli screen-length |
| set cli screen-width |
| set cli terminal |
| set date |
| set date ntp |

# commit

### Syntax

```
commit <check> <and-quit>
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Commit the set of changes and cause the changes to take operational effect.

### Options

`check`—(Optional) Verify whether the syntax is correct, but do not apply changes.

`and-quit`—(Optional) Exit from configuration mode if the commit operation is successful.

### Required Privilege Level

config-control

# configuration-wizard

## Syntax

`configuration-wizard wizard-name` *`wizard-name`* `<tag` *`tag`*`>`

## Release Information

Command introduced in SRC Release 4.3.0

## Description

Configuration Wizard

## Options

`wizard-name` *`wizard-name`*— Wizard name.

**Value**—Text

`tag` *`tag`*—(Optional) Tag for file name with argument values from previous wizard run.

**Value**—Text

## Required Privilege Level

config-control

# copy

### Syntax

`copy` *`parent1 identifier1`* `(to)` *`parent2 identifier2`*

### Release Information

Command introduced in SRC Release 3.0.0

### Description

Copy an existing configuration statement or identifier.

### Options

*`parent1`*— Path to an existing configuration statement or identifier.

**Value**—Path of a collection object

*`identifier1`*— Existing identifier or statement.

**Value**— Identifier or statement

Configuration path.

**Value**

- `to`— Transition.

*`parent2`*— Path to a new configuration statement or identifier.

**Value**—Path of a collection object

*`identifier2`*— New identifier or statement.

**Value**— Identifier or statement

### Required Privilege Level

config-control

# delete

## Syntax

`delete < force object value >`

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Delete a configuration statement or identifier. All subordinate statements and identifiers contained within the specified statement path are deleted with it.

## Options

`force`— Flag indicating that no confirmation is requested before the software clears the configuration.

**Default**—false

*`object`*— Name of the statement or identifier to delete.

**Value**—Path of a configuration object

*`value`*— Value of the statement to delete.

**Value**—Valid value for selected object

## Required Privilege Level

config-control

# display set

### Syntax

```
display set <relative>
```

### Release Information

Command introduced in SRC Release 3.1.0

### Description

Display the configuration in the format of **set** commands.

### Options

`relative`—(Optional) Display the configuration for a hierarchy level in the format of **set** commands.

### Required Privilege Level

No specific privilege required.

# edit

## Syntax

`edit` *`object`*

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Specify edit level in the configuration hierarchy. This command lets you go directly to the specified edit level; for example, to [edit system login]. If you specify a path to a level that does not exist, the software creates the path for you. If you navigate to a different level without creating other statements (for example, by using a **top**, **up**, or **exit** command), the configuration statement may be deleted.

To edit the configuration statement to which you navigated by using the **edit** command, use the **set**, **delete**, **rename**, or **insert** commands.

## Options

*`object`*— Edit level; for example, **edit system login**.

## Required Privilege Level

No specific privilege required.

# exit

### Syntax

```
exit <configuration-mode>
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Exit from this level in the CLI to the level above. At the top level in configuration mode, exit from configuration mode.

### Alias

quit

### Options

`configuration-mode`—(Optional) Exit from configuration mode.

### Required Privilege Level

No specific privilege required.

# help

## Syntax

`help <command>`

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display help about commands. Enter help followed a command name to view information.

## Options

*command*—(Optional) Name of command for which to display help help text.

**Value**—Operational command

## Required Privilege Level

No specific privilege required.

# help configuration

### Syntax

```
help configuration <object>
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Display help for a configuration statement. Enter help followed by the statement to view information.

### Options

*`object`*—(Optional) Configuration statement or object for which to provide help.

**Value**—Path of a configuration object

### Required Privilege Level

No specific privilege required.

# history

## Syntax

```
history <clear>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display the list of the commands executed—from least recent to most recent.

## Options

`clear`—(Optional) Clear command history.

## Required Privilege Level

No specific privilege required.

# insert

## Syntax

`insert` *`parent identifier1`* `(after | before)` *`identifier2`*

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Insert an identifier into an existing configuration hierarchy. You must configure the identifiers before you reorder them. The **insert** command does not create new identifiers.

## Options

*`parent`*— Path in the configuration hierarchy to an existing configuration statement.

**Value**— Hierarchy path

*`identifier1`*— Existing identifier.

**Value**— Name of existing identifier

Ordering of identifiers.

**Value**

- `after`— Place *identifier1* after *identifier2*.
- `before`— Place *identifier1* before *identifier2*.

*`identifier2`*— New identifier to insert.

**Value**—Valid value for selected object

## Required Privilege Level

config-control

# interfaces

## Syntax

```
interfaces name {
     disable;
     trusted;
}
```

## Hierarchy Level

```
[edit interfaces]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure interfaces on the C Series Controller.

## Options

`name` *`name`*— Name of interface

**Value**— Interface name

`disable`—(Optional) Disable this interface

**Editing Level**—Basic

`trusted`—(Optional) Untrusted interfaces can be connected to untrusted networks. If not set, eth1 will be untrusted, any other interface will be trusted.

**Editing Level**—Basic

## Required Privilege Level

interface

## Required Editing Level

Basic

# interfaces *name* group

## Syntax

```
interfaces name group {
     mode (balance-rr | active-backup | balance-xor | broadcast | 802.3ad | balance-
tlb | balance-alb);
     downdelay downdelay;
     updelay updelay;
     lacp-rate (slow | fast);
     mii-monitoring-interval mii-monitoring-interval;
     interfaces [interfaces...];
     primary primary;
     transmit-hash-policy (layer2 | layer34);
}
```

## Hierarchy Level

```
[edit interfaces name group]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure Ethernet group interfaces. Group interfaces let you aggregate network interfaces into a single logical interface to support Ethernet redundancy.

When you configure group interfaces:

- The group interface name must not be one of the Ethernet interface names (that is, eth0, eth1, eth2, eth3).
- If an Ethernet interface is listed inside a group interface, it must not be configured as an interface by itself.
- Group interface and tunnel interface configurations are mutually exclusive. You cannot configure both types at the same time.

## Options

`mode (balance-rr | active-backup | balance-xor | broadcast | 802.3ad | balance-tlb | balance-alb)`— Grouping mode.

### Value

- `balance-rr`— Round-robin policy: Transmit packets in sequential order from the first available device through the last. This mode provides load balancing and fault tolerance.
- `active-backup`— Active-backup policy: Create only one device that is active. A different device becomes active if, and only if, the active device fails.
  When a failover occurs in active-backup mode, bonding will issue one or more gratuitous ARPs on the newly active device. One gratutious ARP is

issued for the bonding master interface and each VLAN interface configured above it, provided that the interface has at least one IP address configured. Gratuitous ARPs issued for VLAN interfaces are tagged with the appropriate VLAN ID.
This mode provides fault tolerance. The primary option affects the behavior of this mode.

- `balance-xor`— XOR policy: Transmit based on the selected transmit hash policy. Alternate transmit policies can be selected with the transmit hash policy option. This mode provides load balancing and fault tolerance.
- `broadcast`— Broadcast policy: Transmit everything on all device interfaces. This mode provides fault tolerance.
- `802.3ad`— IEEE 802.3ad Dynamic link aggregation: Create aggregation groups that share the same speed and duplex settings. Utilizes all devices in the active aggregator according to the 802.3ad specification.
  Device selection for outgoing traffic is done according to the transmit hash policy, which can be changed from the default simple XOR policy via the transmit hash policy option. Note that not all transmit policies may be 802.3ad compliant, particularly in regards to the packet mis-ordering requirements of section 43.2.4 of the 802.3ad standard. Differing peer implementations will have varying tolerances for noncompliance.
- `balance-tlb`— Adaptive transmit load balancing: Create channel bonding that does not require any special switch support. The outgoing traffic is distributed according to the current load (computed relative to the speed) on each device. Incoming traffic is received by the current device. If the receiving device fails, another device takes over the MAC address of the failed receiving device.
- `balance-alb`— Adaptive load balancing: Include adaptive transmit load balancing plus receive load balancing (rlb) for IPV4 traffic, and does not require any special switch support. The receive load balancing is achieved by ARP negotiation. The bonding driver intercepts the ARP replies sent by the local system on their way out and overwrites the source hardware address with the unique hardware address of one of the devices in the bond such that different peers use different hardware addresses for the server.
  Receive traffic from connections created by the server is also balanced. When the local system sends an ARP request the bonding driver copies and saves the peer's IP information from the ARP packet. When the ARP reply arrives from the peer, its hardware address is retrieved and the bonding driver initiates an ARP reply to this peer assigning it to one of the devices in the bond. A problematic outcome of using ARP negotiation for balancing is that each time that an ARP request is broadcast it uses the hardware address of the bond. Hence, peers learn the hardware address of the bond and the balancing of receive traffic collapses to the current device. This is handled by sending updates (ARP replies) to all the peers with their individually assigned hardware address such that the traffic is redistributed. Receive traffic is also redistributed when a new device is added to the bond and when an inactive device is re-activated. The receive load is distributed sequentially (round robin) among the group of highest speed devices in the bond.
  When a link is reconnected or a new device joins the bond the receive

traffic is redistributed among all active devices in the bond by initiating ARP Replies with the selected MAC address to each of the clients. The updelay option must be set to a value equal or greater than the switch's forwarding delay so that the ARP replies sent to the peers will not be blocked by the switch.

**Editing Level**—Basic

`downdelay` *`downdelay`*—(Optional) Time (ms) to wait before disabling a device after a link failure has been detected. This option is valid only for the MII monitor. The downdelay value should be a multiple of the MII monitoring interval; if not, it will be rounded down to the nearest multiple.

**Value**—Integer in the range 0–2147483647 ms
**Editing Level**—Basic

`updelay` *`updelay`*—(Optional) Time (ms)to wait before enabling a device after a link recovery has been detected. This option is valid only for the MII monitor. The updelay value should be a multiple of the MII monitoring interval; if not, it will be rounded down to the nearest multiple.

**Value**—Integer in the range 0–2147483647 ms
**Editing Level**—Basic

`lacp-rate (slow | fast)`—(Optional) Rate at which the link partner is requested to transmit LACPDU packets in 802.3ad mode. This option is valid only for the 802.3ad mode.

**Value**

- `slow`— Request partner to transmit LACPDUs every 30 seconds.
- `fast`— Request partner to transmit LACPDUs every 1 second.

**Editing Level**—Basic

`mii-monitoring-interval` *`mii-monitoring-interval`*—(Optional) MII link monitoring frequency. This option is valid only for the MII monitor.

**Value**—Integer in the range -2147483648–2147483647 ms
**Editing Level**—Basic

`interfaces [`*`interfaces`*`...]`

— Ethernet interfaces in this group.

**Value**—Text
**Editing Level**—Basic

`primary` *`primary`*—(Optional) Name of device that will always be the active device while it is available. Only when the primary is off-line will alternate devices be used. This is useful when one device is preferred over another, for example, when one device has higher throughput than another. This option is valid only for active-backup mode.

**Value**—Text
**Editing Level**—Basic

`transmit-hash-policy (layer2 | layer34)`—(Optional) Transmit hash policy to use for device selection in balance-xor and 802.3ad modes.

**Value**

- `layer2`— Uses XOR of hardware MAC addresses to generate the hash. The formula is:
  (source MAC XOR destination MAC) modulo slave count
  This algorithm will place all traffic to a particular network peer on the same device. This algorithm is 802.3ad compliant.
- `layer34`— Uses upper layer protocol information, when available, to generate the hash. This allows for traffic to a particular network peer to span multiple devices, although a single connection will not span multiple devices.
  The formula for unfragmented TCP and UDP packets is
  ((source port XOR dest port) XOR ((source IP XOR dest IP) AND 0xffff) modulo slave count
  For fragmented TCP or UDP packets and all other IP protocol traffic, the source and destination port information is omitted. For non-IP traffic, the formula is the same as for the layer2 transmit hash policy.
  This algorithm is not fully 802.3ad compliant. A single TCP or UDP conversation containing both fragmented and unfragmented packets will see packets striped across two interfaces. This may result in out of order delivery. Most traffic types will not meet this criteria, as TCP rarely fragments traffic, and most UDP traffic is not involved in extended conversations. Other implementations of 802.3ad may or may not tolerate this noncompliance.

**Editing Level**—Basic

## Required Privilege Level

interface

**Required Editing Level**

Basic

# interfaces *name* tunnel

## Syntax

```
interfaces name tunnel {
     mode (ipip | gre | sit);
     destination destination;
     source source;
     key key;
     interface interface;
     ttl ttl;
}
```

## Hierarchy Level

`[edit interfaces name tunnel]`

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure a tunnel interface. A tunnel allows direct connection between a remote location and an application running on the C Series Controller; a tunnel lets you use the redirect server in deployments where the JUNOSe router does not have a direct connection to the C Series Controller.

## Options

`mode (ipip | gre | sit)`— Type of tunnel interface.

**Value**

- `ipip`— IP-over-IP. Encapsulates IP packets within IP packets.
- `gre`— GRE. Encapsulates traffic that uses various routing protocols within IP.
- `sit`—IPv6 in IPv4 tunnel

**Default**— No value
**Editing Level**—Basic

`destination destination`— IP address of the remote end of the tunnel.

**Value**—IP address
**Default**— No value
**Editing Level**—Basic

`source` *`source`*—(Optional) Local IP address, that will not change, to receive tunneled packets. If you specify a source address, also specify a local interface.

**Value**—IP address
**Default**— No value
**Editing Level**—Basic

`key` *`key`*—(Optional) For a GRE tunnel, a GRE key.

**Value**—Integer in the range -2147483648–2147483647
**Default**— No value
**Editing Level**—Basic

`interface` *`interface`*—(Optional) Existing physical interface. If you configured a source address, specify an interface.

**Value**— Name of interface.

Example: eth0

**Default**— No value
**Editing Level**—Basic

`ttl` *`ttl`*—(Optional) Lifetime of tunneled packets.

**Value**—Integer in the range 1–255
**Editing Level**—Basic

**Required Privilege Level**

interface

**Required Editing Level**

Basic

# interfaces *name* unit

## Syntax

`interfaces` *`name`* `unit` *`unit-number`* `...`

## Hierarchy Level

`[edit interfaces` *`name`* `unit]`

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure logical interfaces on a physical Ethernet interface on the C Series Controller. You can create different units to configure numerous IP addresses on an interface.

## Options

`unit-number` *`unit-number`*— Number of the unit (logical interface).

**Value**—Integer in the range 0–16385

## Required Privilege Level

interface

## Required Editing Level

Basic

# interfaces *name* unit *unit-number* family inet

## Syntax

```
interfaces name unit unit-number family inet {
     address address;
     broadcast broadcast;
}
```

## Hierarchy Level

```
[edit interfaces name unit unit-number family inet]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure properties for IPv4.

## Options

`address` *`address`*—(Optional) IP address with destination prefix for interface.

**Value**— IP address/destination prefix
**Default**— No value
**Editing Level**—Basic

`broadcast` *`broadcast`*—(Optional) Broadcast address.

**Value**—IP address
**Default**— No value
**Editing Level**—Basic

## Required Privilege Level

interface

## Required Editing Level

Basic

# interfaces *name* unit *unit-number* family inet6 address

## Syntax

`interfaces` *`name`* `unit` *`unit-number`* `family inet6 address` *`address`* `...`

## Hierarchy Level

`[edit interfaces` *`name`* `unit` *`unit-number`* `family inet6 address]`

## Release Information

Statement introduced in SRC Release 1.1.0

## Description

Configure properties for IPv6.

## Options

`address` *`address`*— IP address with destination prefix for interface.

**Value**— IP address/destination prefix

## Required Privilege Level

interface

## Required Editing Level

Basic

# load factory-default

### Syntax

```
load factory-default
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Load the default configuration supplied with the SRC software.

### Required Privilege Level

config-control

# load merge

### Syntax

```
load merge filename <relative> < (bootstrap-only | except-bootstrap) > <format (text |
xml) >
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Combine the configuration that is currently shown in the CLI and the configuration in the specified file.

### Options

*filename*— Path and filename of the file on the C Series Controller to load.

**Value**— Complete filename on the C Series Controller *path/filename*.

`relative`—(Optional) Hierarchy level relative to the current location.

(Optional) Load only bootstrap configuration options or load everyting else except the bootstrap configuration options. The bootstrap configuration is the set of configuration options that enable the host as a network host after commiting the configuration. For example, the bootstrap configuration includes the system hostname, domain-name, domain-search, name-server, interfaces, routing-options, and SSH host keys.

**Value**

- `bootstrap-only`— Load only bootstrap configuration options
- `except-bootstrap`— Load all configuration in the specified configuration file except the bootstrap options

**Default**—all
**Introduced in**—4.1.0

`format (text | xml)` —(Optional) Format of configuration file.

**Value**

- `text`— Text format
- `xml`— XML format

## Required Privilege Level

config-control

# load override

## Syntax

`load override filename <format (text | xml) >`

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Discard the entire configuration that is currently shown in the CLI, and load the entire configuration in the specified file. The statement also marks every object as changed.

## Options

*filename*— Path and filename of the file on the C Series Controller to load.

**Value**— Complete filename on the C Series Controller *path/filename*.

`format (text | xml)` —(Optional) Configuration format.

**Value**

- `text`— Text format
- `xml`— XML format

## Required Privilege Level

config-control

# load replace

### Syntax

```
load replace filename <relative> < (bootstrap-only | except-bootstrap) > <format (text
| xml) >
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Replace identifiers or values in a configuration.

### Options

*filename*— Path and filename of the configuration file on the C Series Controller that you want to load.

**Value**— Complete filename on the C Series Controller *path/filename*.

relative—(Optional) Hierarchy level relative to the current location.

(Optional) Load only the bootstrap configuration or everything else except the bootstrap configuration. The bootstrap configuration is the set of configuration parameters that enable the host as a network host after you commit the configuration. For example, the bootstrap configuration includes the system hostname, domain-name, domain-search, name-server, interfaces, routing-options, and SSH host keys.

**Value**

- bootstrap-only— Load only the bootstrap configuration contained in the configuration file
- except-bootstrap— Load everything else in the configuration file except the bootstrap configuration

**Default**—all
**Introduced in**—4.1.0

format (text | xml) —(Optional) Format of the configuration file.

**Value**

- `text`— Text format
- `xml`— XML format

## Required Privilege Level

config-control

# load set

### Syntax

`load set` *`filename`* `<relative>`

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Execute the set of commands listed in the specified file.

### Options

*`filename`*— Path and filename of the file on the C Series Controller to load.

**Value**— Complete filename on the C Series Controller *path/filename*.

`relative`—(Optional) Hierarchy level relative to the current location.

### Required Privilege Level

config-control

# rename

## Syntax

`rename` *`parent identifier1`* `(to)` *`identifier2`*

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Rename an existing configuration statement or identifier.

## Options

*`parent`*— Path to an existing configuration statement or identifier.

**Value**—Path of a collection object

*`identifier1`*— Existing identifier or statement.

**Value**— Identifier or statement

Configuration path.

**Value**

- `to`— Transition.

*`identifier2`*— New identifier or statement.

**Value**—Valid value for selected object

## Required Privilege Level

config-control

# rollback

### Syntax

```
rollback
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Return to a previously committed configuration.

**Note:** You can enter the **rollback** command only at the top level of the configuration hierarchy.

### Required Privilege Level

config-control

# routing-options static route

## Syntax

```
routing-options static route destination {
     next-hop [next-hop...];
     reject;
}
```

## Hierarchy Level

```
[edit routing-options static route]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure static routes to point to routers that connect to other networks to allow connectivity to devices on other networks.

## Options

`destination` *`destination`*— Destination network and mask. To configure the default route use destination 0.0.0.0/0

**Value**—Text

`next-hop [`*`next-hop`*`...]`—(Optional) Address of next hop from the C Series Controller to the destination.

**Value**—IP address
**Default**— No value
**Editing Level**—Basic

`reject`—(Optional) Drop packets to the specified destination, and send an ICMP unreachables message.

**Editing Level**—Basic

## Required Privilege Level

routing

## Required Editing Level

Basic

# run

## Syntax

`run` *`command`*

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Run an operational mode command without exiting from configuration mode.

## Options

*`command`*— Name of command to run.

**Value**—Operational command

## Required Privilege Level

No specific privilege required.

# save

### Syntax

`save filename <format (text | xml | set) > < (local | shared | all) >`

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Save the configuration to an ASCII file. The contents of the current level of the statement hierarchy and below are saved, along with the statement hierarchy containing it.

### Options

*`filename`*— Name of file to contain the saved configuration.

**Value**— One of the following:

- Local filename, including path— *path/file*.
- File URL.
- FTP format—ftp://*username@hostname/ filename* or ftp://*username*:*password @hostname*/*filename*. (**Note:**Password appears at the CLI in clear text.)

`format (text | xml | set)` —(Optional) The configuration format

**Value**

- `text`— Text format
- `xml`— XML format
- `set`— Set format

**Default**—xml

(Optional)

**Value**

- `local`— Save local configuration. Local configuration are the configuration data that reside in local host's file system. SSH host keys

are also saved if the save local command is performed at top or system edit level.

- `shared`— Save shared configuration. Shared configuration are the configuration data that reside in the Juniper Networks Database, which can operate in either standalone or community mode.
- `all`— Save both local and shared confiuration.

**Default**—all
**Introduced in**—4.1.0

## Required Privilege Level

view

# set

## Syntax

`set` *`object value`*

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Create a statement hierarchy and set identifier values. When you enter a **set** command, the current level in the hierarchy does not change.

## Options

*`object`*— Configuration statement or identifier

**Value**—Path of a configuration object

*`value`*— Value configured for a configuration statement.

**Value**—Valid value for selected object

## Required Privilege Level

config-control

# show

## Syntax

```
show <object>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display information about a configuration object.

## Options

*object*—(Optional) Configuration object for which to display information. The object can be a configuration statement or an identifier for a statement.

**Value**—Path of a configuration object

## Required Privilege Level

config-view

# system

### Syntax

```
system {
     host-name host-name;
     domain-name domain-name;
     domain-search [domain-search...];
     name-server [name-server...];
     authentication-order [(radius | tacplus | password)...];
     time-zone time-zone;
}
```

### Hierarchy Level

`[edit system]`

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure system properties.

### Options

`host-name` *`host-name`*— Hostname for the C Series Controller.

**Value**— hostname
**Default**— No value
**Editing Level**—Basic

`domain-name` *`domain-name`*—(Optional) Name of the domain in which the C Series Controller is located. This is the default domain name that is appended to hostnames that are not fully qualified.

**Value**— domain name
**Default**— No value
**Editing Level**—Basic

`domain-search [`*`domain-search`*`...]`—(Optional) List of domains to search.

**Value**— domain name
**Default**— No value
**Editing Level**—Basic

`name-server [name-server...]`—(Optional) Domain name server(s).

**Value**— name server
**Default**— No value
**Editing Level**—Basic

`authentication-order [(radius | tacplus | password)...]`—(Optional) Order in which the software tries different user authentication methods when attempting to authenticate a user. For each login attempt, the software tries the authentication methods in order configured, until the password matches.

**Value**

- `radius`— RADIUS authentication
- `tacplus`—TACACS+ authentication services
- `password`—Traditional password authentication

**Editing Level**—Basic

`time-zone time-zone`—(Optional) Name of the local time zone.

**Value**— time-zone
**Default**—UTC
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# system accounting

### Syntax

```
system accounting {
     events [(login | change-log | interactive-commands)...];
}
```

### Hierarchy Level

```
[edit system accounting]
```

### Release Information

Statement introduced in SRC Release 4.1.0

### Description

Configure system accounting.

### Options

`events [(login | change-log | interactive-commands)...]`—(Optional) Event types to be audited.

**Value**

- `login`— Logins are audited
- `change-log`— Configuration changes are audited
- `interactive-commands`— Interactive commands (any command-line input) are audited

**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Basic

# system accounting destination tacplus server

## Syntax

```
system accounting destination tacplus server server-address {
     secret secret;
     timeout timeout;
     port port;
     source-address source-address;
}
```

## Hierarchy Level

```
[edit system accounting destination tacplus server]
```

## Release Information

Statement introduced in SRC Release 4.1.0

## Description

Configure TACACS+ accounting server.

## Options

`server-address` *`server-address`*— Address of TACACS+ accounting server.

**Value**—IP address

`secret` *`secret`*— Password to use with the TACACS+ server. The secret password used by the C Series Controller must match that used by the server.

**Value**—Secret text
**Editing Level**—Basic

`timeout` *`timeout`*—(Optional) Amount of time (in seconds) that the C Series Controller waits to receive a response from the TACACS+ server.

**Value**—Integer in the range 1–90 s
**Default**—3
**Editing Level**—Basic

`port` *`port`*—(Optional) Port number on which to connect to a TACACS+ accounting server.

**Value**—Integer in the range -2147483648–2147483647

**Default**—49
**Editing Level**—Basic

`source-address` *`source-address`*—(Optional) The address of this server used when connecting to the TACACS+ server.

**Value**—Text
**Default**— No value
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# system file-uploading-specifications

## Syntax

```
system file-uploading-specifications name {
     file-search-pattern [file-search-pattern...];
     random-delay random-delay;
     retry-time retry-time;
     interval (1 | 2 | 3 | 4 | 6 | 8 | 12 | 24);
     start-time start-time;
     keep keep;
     append (time-stamp | host-name | time-stamp-and-host-name);
}
```

## Hierarchy Level

```
[edit system file-uploading-specifications]
```

## Release Information

Statement introduced in SRC Release 4.1.0

## Description

Configure options for automatically uploading files to a remote FTP server.

## Options

`name` *`name`*— Name of the automatic file-uploading configuration.

**Value**—Text

`file-search-pattern [`*`file-search-pattern...`*`]`— File format to be uploaded. Specify the directory path and filename pattern you want to search for and automatically upload to the remote FTP server.

**Value**—Text
**Default**— /opt/UMC/sae/var/acct/log*
**Editing Level**—Basic

`random-delay` *`random-delay`*— Delay in seconds to connect to the remote FTP server. The upload client on the C Series Controller waits a random time between 1 and this specified delay time to connect to the remote upload server.

**Value**—Integer in the range 1–1000 s
**Editing Level**—Basic

`retry-time` *`retry-time`*— Retry time interval (in seconds). If the upload fails, this is the amount of time that the upload client waits before trying the upload again.

**Value**—Integer in the range 1–86400 s
**Default**— 3600
**Editing Level**—Basic

`interval (1 | 2 | 3 | 4 | 6 | 8 | 12 | 24)`— Time interval for starting the next cycle of file uploading. The time should be a divisor of 24.

**Value**

- `1`—Every one hour
- `2`—Every two hours
- `3`—Every three hours
- `4`—Every four hours
- `6`—Every six hours
- `8`—Every eight hours
- `12`—Every twelve hours
- `24`—Every twenty-four hours

**Default**— 24
**Editing Level**—Basic

`start-time` *`start-time`*—(Optional) Time when file uploading should begin in 24-hour format (HH:MM). For example, "00:00".

**Value**—Text
**Default**— 00:00
**Editing Level**—Basic

`keep` *`keep`*—(Optional) Keep the "n" most recent files after uploading. The kept files are compressed (gzip) after uploading and moved to a subdirectory.

**Value**—Integer in the range 0–30
**Default**— 3
**Editing Level**—Basic

`append (time-stamp | host-name | time-stamp-and-host-name)`—(Optional) Suffix to append to the filenames of uploaded files. If this option is not specified, nothing is appended to the filenames.

**Value**

`time-stamp`— Timestamp to append to the end of the filename in a form of "-YYYYMMDDHHMMSS"

- `host-name`— Hostname to append to the end of the filename in a form of "-hostname"
- `time-stamp-and-host-name`— Timestamp and hostname to append to the end of the filename in a form of "-YYYYMMDDHHMMSS-hostname"

**Default**— time-stamp
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# system file-uploading-specifications *name* ftp

## Syntax

```
system file-uploading-specifications name ftp {
     server server;
     user-name user-name;
     password password;
     port port;
     destination-path destination-path;
}
```

## Hierarchy Level

```
[edit system file-uploading-specifications name ftp]
```

## Release Information

Statement introduced in SRC Release 4.1.0

## Description

Configure options for the remote FTP server where files are automatically uploaded and stored.

## Options

`server` *`server`*— Name of the FTP server or host to connect to for automatic file uploading.

**Value**—Text
**Editing Level**—Basic

`user-name` *`user-name`*—(Optional) Name used to log in to the FTP server used for automatic file uploading.

**Value**—Text
**Editing Level**—Basic

`password` *`password`*—(Optional) Password used to log in to the FTP server used for automatic file uploading.

**Value**—Secret text
**Editing Level**—Basic

`port` *`port`*—(Optional) Port number used by the FTP server used for automatic file uploading.

**Value**—Integer in the range 1–65535
**Editing Level**—Basic

`destination-path` *`destination-path`*— Directory in the remote FTP server where automatically uploaded files are stored.

**Value**—Text
**Default**—~
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# system ipmi

### Syntax

```
system ipmi {
     address address;
     gateway gateway;
     gateway-mac-address gateway-mac-address;
}
```

### Hierarchy Level

```
[edit system ipmi]
```

### Release Information

Statement introduced in SRC Release 2.0.0

### Description

Configure the IPMI interface.

### Options

`address` *`address`*—(Optional) IP address/destination prefix of IPMI interface. You must enter a value for the C2000 Controller. For the C4000 Controller, the address is automatically set to the IP address of the eth0 unit 0 interface.

**Value**—Text
**Editing Level**—Basic

`gateway` *`gateway`*— IP address of the gateway.

**Value**—IP address
**Editing Level**—Basic

`gateway-mac-address` *`gateway-mac-address`*—(Optional) MAC address of the gateway. If not specified, ARP will be used to get the gateway's MAC address.

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system

## Required Editing Level

Basic

# system ipmi user

### Syntax

```
system ipmi user name {
     plain-text-password;
     encrypted-password encrypted-password;
}
```

### Hierarchy Level

```
[edit system ipmi user]
```

### Release Information

Statement introduced in SRC Release 2.0.0

### Description

Configure the IPMI user account.

### Options

`name` *`name`*— Username that is used to log in to the IPMI interface of a C Series Controller.

**Value**— username

`plain-text-password`—(Optional) Prompt for a plain-text password.

**Editing Level**—Basic

`encrypted-password` *`encrypted-password`*— Password in plaintext format.

**Value**— plain-text-password
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Basic

# system java-orb object-adapter

## Syntax

```
system java-orb object-adapter {
     address address;
}
```

## Hierarchy Level

```
[edit system java-orb object-adapter]
```

## Release Information

Statement introduced in SRC-3.2.0 Release

## Description

Object adapter internet address configuration

## Options

`address` *`address`*—(Optional) Object Adapter Internet Address: IP address on multi-homed host.

**Value**— IP address
**Default**— No value
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# system ldap client

## Syntax

```
system ldap client {
     base-dn base-dn;
     url url;
     backup-urls [backup-urls...];
     principal principal;
     credentials credentials;
     timeout timeout;
     time-limit time-limit;
     eventing;
     polling-interval polling-interval;
     connection-manager-id connection-manager-id;
     dispatcher-pool-size dispatcher-pool-size;
     event-base-dn event-base-dn;
     signature-dn signature-dn;
     blacklist;
}
```

## Hierarchy Level

```
[edit system ldap client]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure directory properties used by the CLI to connect to the directory that contains SRC data.

On a C Series Controller, you use the Juniper Networks database and typically use the default configuration for the directory connection. You can add backup directories and change the password to the directory.

## Options

`base-dn` *`base-dn`*—(Optional) DN of the root directory for SRC components and applications.

**Value**— DN
**Default**—o=UMC
**Editing Level**—Expert

`url` *`url`*—(Optional) URL that identifies the location of the primary directory server.

**Value**— URL
**Default**—ldap://127.0.0.1:389
**Editing Level**—Expert

`backup-urls [backup-urls...]`—(Optional) URLs that identify the locations of backup directory servers. Backup servers are used if the primary directory server is not accessible.

**Value**— URL
**Default**— No value
**Editing Level**—Normal

`principal principal`—(Optional) DN that defines the username with which an SRC component accesses the directory.

**Value**— DN
**Default**—cn=cli,ou=components,o=operators,<base>
**Editing Level**—Expert

`credentials credentials`—(Optional) Password used for authentication with the directory server.

**Value**—Secret text
**Default**—cli
**Editing Level**—Expert

`timeout timeout`—(Optional) Maximum amount of time during which the directory must respond to a connection request.

**Value**—Integer in the range 0–600 s
**Default**— No value
**Editing Level**—Expert

`time-limit time-limit`—(Optional) The number of milliseconds to wait for directory results before returning. If set to 0, wait indefinitely.

**Value**—Integer in the range 0–2147483647 ms
**Default**— 5000
**Editing Level**—Expert

`eventing`—(Optional) Enable an SRC component to poll the directory for changes.

**Default**—TRUE
**Editing Level**—Expert

`polling-interval polling-interval`—(Optional) Interval at which an SRC component

polls the directory to check for directory changes.

**Value**—Integer in the range 15–86400 s
**Default**— No value
**Editing Level**—Expert

`connection-manager-id` *`connection-manager-id`*—(Optional) CLI identifier of the connection manager for the directory eventing system (within the JNDI framework).

**Value**— Identifier for connection manager

Example—DIRAGENT_POOL_VR

**Editing Level**—Expert

`dispatcher-pool-size` *`dispatcher-pool-size`*—(Optional) Number of directory change notifications that can be sent simultaneously to the SRC component.

**Value**—Integer in the range 0–2147483647
**Editing Level**—Expert

`event-base-dn` *`event-base-dn`*—(Optional) DN of an entry superior to the data associated with an SRC component in the directory.

If you are storing non-SRC data in the directory, and that data changes frequently whereas the SRC data does not, you may need to adjust the default value to improve performance. For optimal performance, set the value to the DN of an entry superior to both the SRC data and the changing non-SRC data.

**Value**— DN
**Default**— o=umc, <base>
**Editing Level**—Expert

`signature-dn` *`signature-dn`*—(Optional) DN of the directory entry that specifies the usedDirectory attribute for the SRC CLI. The usedDirectory attribute identifies the vendor of the directory server.

**Value**— DN
**Editing Level**—Expert

`blacklist`—(Optional) Specifies whether the directory monitoring system prevents connection to a directory if the directory fails to respond during 10 polling intervals.

**Editing Level**—Expert

## Required Privilege Level

system

## Required Editing Level

Basic

# system login

## Syntax

```
system login {
     announcement announcement;
}
```

## Hierarchy Level

```
[edit system login]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure system announcement to be displayed at user login.

## Options

`announcement` *`announcement`*—(Optional) Announcement displayed to every user after login.

**Value**— Announcement text
**Default**— No value
**Editing Level**—Basic

## Required Privilege Level

system admin

## Required Editing Level

Basic

# system login class

## Syntax

```
system login class name {
     allow-commands allow-commands;
     allow-configuration allow-configuration;
     deny-commands deny-commands;
     deny-configuration deny-configuration;
     idle-timeout idle-timeout;
     permissions [(admin | admin-control | all | clear | configure | control | field |
firewall | firewall-control | interface | interface-control | maintenance | network |
reset | routing | routing-control | secret | secret-control | security | security-
control | shell | snmp | snmp-control | system | system-control | view | view-
configuration | service | service-control | subscriber | subscriber-control)...];
}
```

## Hierarchy Level

```
[edit system login class]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Define login classes. You can define any number of login classes.

## Options

`name` *`name`*— Name that you choose for a login class.

**Value**— Name

`allow-commands` *`allow-commands`*—(Optional) Operational mode commands that members of a login class can use.

If you omit this statement and the deny-commands statement, users can issue only those commands for which they have access privileges through the permissions statement.

You can use an extended (modern) regular expression as defined in POSIX 1003.2. If the regular expression contains any spaces, operators, or wildcard characters, enclose it in quotation marks.

**Value**— Operational-mode commands to allow
**Default**— No value
**Editing Level**—Basic

`allow-configuration` *`allow-configuration`*—(Optional) Configuration mode

commands that members of a login class can use.

If you omit this statement and the deny-configuration statement, users can issue only those commands for which they have access privileges through the permissions statement

You can use an extended (modern) regular expression as defined in POSIX 1003.2. If the regular expression contains any spaces, operators, or wildcard characters, enclose it in quotation marks.

> **Value**— Configuration-mode commands to allow
> **Default**— No value
> **Editing Level**—Basic

`deny-commands` *`deny-commands`*—(Optional) Operational mode commands that the user is denied permission to issue, even though the permissions set with the permissions statement would allow it.

If you omit this statement and the allow-commands statement, users can issue only those commands for which they have access privileges through the permissions statement.

You can use an extended (modern) regular expression as defined in POSIX 1003.2. If the regular expression contains any wildcard characters, enclose it in quotation marks.

> **Value**— Operational mode commands to deny
> **Default**— No value
> **Editing Level**—Basic

`deny-configuration` *`deny-configuration`*—(Optional) Configuration mode commands that the user is denied permission to issue, even though the permissions set with the permissions statement would allow it.

If you omit this statement and the allow-configuration statement, users can issue only those commands for which they have access privileges through the permissions statement.

You can use extended (modern) regular expression as defined in POSIX 1003.2. If the regular expression contains any spaces, operators, or wildcard characters, enclose it in quotation marks.

> **Value**— Configuration mode commands to deny
> **Default**— No value
> **Editing Level**—Basic

`idle-timeout` *`idle-timeout`*—(Optional) Maximum amount of time that a session can be idle before the user is logged off the C Series Controller. The session times out after remaining at the CLI operational mode prompt for the specified time.

If you omit this statement, a user is never forced off the system after extended idle times.

**Value**— Number of minutes
**Default**— No value
**Editing Level**—Basic

`permissions [(admin | admin-control | all | clear | configure | control | field | firewall | firewall-control | interface | interface-control | maintenance | network | reset | routing | routing-control | secret | secret-control | security | security-control | shell | snmp | snmp-control | system | system-control | view | view-configuration | service | service-control | subscriber | subscriber-control)...]`—(Optional) Access privileges for each login class.

**Value**

- `admin`— Can view user account information in configuration mode and with the `show` configuration command.
- `admin-control`— Can view user accounts and configure them (at the [edit system login] hierarchy level).
- `all`— Has all permissions.
- `clear`— Can clear (delete) information learned from the network that is stored in various network databases (by using the `clear` commands).
- `configure`— Can enter configuration mode (by using the `configure` command).
- `control`— Can modify any configuration values.
- `field`— Reserved for field (debugging) support.
- `firewall`— Can view the firewall filter configuration in configuration mode.
- `firewall-control`— Can view and configure firewall filter information.
- `interface`— Can view the interface configuration in configuration mode and with the `show configuration` operational mode command.
- `interface-control`— Can modify interface configuration.
- `maintenance`— Can perform system maintenance, including starting a local shell on a C Series Controller, and can halt and reboot a C Series Controller (by using the `request` system commands).
- `network`— Can access the network by entering commands such as SSH or Telnet.
- `reset`— Can restart software processes by using the `restart` command and can configure whether software processes are enabled or disabled.
- `routing`— Can view routing information in configuration and operational modes.
- `routing-control`— Can view general routing information and modify routing configuration.
- `secret`— Can view passwords and other authentication keys in the configuration.
- `secret-control`— Can view passwords and other authentication keys in the configuration and can modify them in configuration mode.
- `security`— Can view security configuration in configuration mode and with the `show` configuration operational mode command.
- `security-control`— Can view security configuration in configuration mode and with the `show configuration` operational mode command.
- `shell`— Can start a local shell on the router by entering the `start shell` command.

- `snmp`— Can view SNMP configuration information in configuration and operational modes.
- `snmp-control`— Can view SNMP configuration information and configure SNMP (at the `[edit snmp]` hierarchy level).
- `system`— Can view system-level information in configuration and operational modes.
- `system-control`— Can view and configure system-level configuration information.
- `view`— Can use various commands to display current system-wide values and statistics.
- `view-configuration`— Can view all system configuration, excluding any secret configurations.
- `service`— Can view service and policy definitions.
- `service-control`— Can view and configure service definitions and policy definitions.
- `subscriber`— Can view information about subscriber definitions.
- `subscriber-control`— Can view and configure information about subscriber definitions.

**Editing Level**—Basic

**Required Privilege Level**

system admin

**Required Editing Level**

Basic

# system login user

## Syntax

```
system login user user-name {
     class class;
     full-name full-name;
     uid uid;
     gid gid;
     prompt prompt;
     level (basic | normal | advanced | expert);
     complete-on-space (on | off);
}
```

## Hierarchy Level

```
[edit system login user]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure access permissions for individual users.

## Options

`user-name` *`user-name`*— Username that is used to log in to a C Series Controller.

**Value**— Username

`class` *`class`*— User's login class. Configure one class for each user. The class referenced must already be configured.

**Value**— Class-name
**Editing Level**—Basic

`full-name` *`full-name`*— Full name of the user. If the name contains spaces, enclose it in quotation marks.

**Value**— Name
**Editing Level**—Basic

`uid` *`uid`*— User identifier for the login account.

**Value**—Integer in the range 0–64000

**Editing Level**—Basic

`gid` *`gid`*— Group identifier for the login account.

**Value**—Integer in the range 0–64000
**Editing Level**—Basic

`prompt` *`prompt`*—(Optional) Default prompt that this user sees at the SRC CLI.

**Value**— Prompt-text
**Editing Level**—Basic

`level (basic | normal | advanced | expert)`—(Optional) Editing level available to the user. The setting for the editing level determines which configuration commands are visible to the user.

**Value**

- `basic`— Minimal set of configuration statements and commands— only the statements that must be configured are visible.
- `normal`— Normal set of configuration statements and commands— the common and basic statements are visible.
- `advanced`— All configuration statements and commands, including the common and basic ones, are visible.
- `expert`— All configuration statements, including common, basic, and internal statements and commands used for debugging, are visible.

**Default**— Normal
**Editing Level**—Basic

`complete-on-space (on | off)`—(Optional) Set the CLI to complete a partial command entry when you type a space. This statement enables command completion for all user sessions for this user.

To enable command completion for an active user session, use the `set cli complete-on-space` operational mode command.

**Value**

- `on`— Turn on command completion—allow either a space or a tab to be used for command completion.
- `off`— Turn off command completion—a space or a tab after a partial command name does not complete the command.

**Default**— On
**Editing Level**—Basic

## Required Privilege Level

system admin

## Required Editing Level

Basic

# system login user *user-name* authentication

## Syntax

```
system login user user-name authentication {
     plain-text-password;
     encrypted-password encrypted-password;
     ssh-authorized-keys [ssh-authorized-keys...];
}
```

## Hierarchy Level

```
[edit system login user user-name authentication]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Authentication methods that a user can use to log in to a C Series Controller. You can assign multiple authentication methods to a single user.

## Options

`plain-text-password`—(Optional) Prompt for a plain-text password.

**Editing Level**—Basic

`encrypted-password` *`encrypted-password`*—(Optional) Password in encrypted format.

**Value**— Encrypted-password
**Editing Level**—Basic

`ssh-authorized-keys [`*`ssh-authorized-keys`*`...]`—(Optional) Public key for SSH.

**Value**— Public-key
**Editing Level**—Basic

## Required Privilege Level

system admin

## Required Editing Level

Basic

# system logrotate

## Syntax

`system logrotate` *`file-name`* `...`

## Hierarchy Level

`[edit system logrotate]`

## Release Information

Statement introduced in SRC Release 4.3.0

## Description

Name of a logrotate configuration file.

## Options

`file-name` *`file-name`*— Each logrotate configuration file defines the files to be rotated. Log rotation behavior is defined by both global directives defined in the global configuration file and local directives defined here. Local directives can override global directives.

**Value**— filename

## Required Privilege Level

system

## Required Editing Level

Basic

# system logrotate *file-name* logfiles

## Syntax

```
system logrotate file-name logfiles name {
     compress;
     delay-compress;
     copy;
     daily;
     weekly;
     monthly;
     rotate rotate;
     size size;
     no-create;
     copy-truncate;
     if-empty;
     missing-ok;
     filenames filenames;
     shared-scripts;
     pre-rotate pre-rotate;
     post-rotate post-rotate;
     first-action first-action;
     last-action last-action;
}
```

## Hierarchy Level

```
[edit system logrotate file-name logfiles]
```

## Release Information

Statement introduced in SRC Release 4.3.0

## Description

Configure local options for specific log files.

## Options

`name` *`name`*— One or more log files.

**Value**—Text

`compress`—(Optional) Old versions of log files are compressed with gzip by default.

**Editing Level**—Basic

`delay-compress`—(Optional) Postpone compression of the previous log file to the next rotation cycle. This only has effect when used in combination with the compress option. This option can be used when a program cannot be instructed to close its log file and thus may continue writing to the previous log file for some time.

**Editing Level**—Basic

`copy`—(Optional) Make a copy of the log file but do not modify the original log file. Use this option to make a snapshot of the current log file, or when some other utility needs to truncate or parse the file. When this option is used, the create option has no effect because the original log file stays in place.

**Editing Level**—Basic

`daily`—(Optional) Log files are rotated every day.

**Editing Level**—Basic

`weekly`—(Optional) Log files are rotated each week. This option rotates log files if the current weekday is less than the weekday of the last rotation, or if more than a week has passed since the last rotation.

**Editing Level**—Basic

`monthly`—(Optional) Log files are rotated each month. This option rotates log files the first time logrotate is run in a month (this is normally on the first day of the month).

**Editing Level**—Basic

`rotate` *`rotate`*—(Optional) Rotate log files the specified number times before removing them. If set to 0, old versions are removed rather than rotated.

**Value**—Integer in the range 0–2147483647
**Editing Level**—Basic

`size` *`size`*—(Optional) Log files are rotated when they grow larger than the specified size in bytes. If size is followed by k, the size is assumed to be in kilobytes. If size is followed by M, the size is assumed to be in megabytes. If size is followed by G, the size is assumed to be in gigabytes. For example, size 100, size 100k, size 100M, and size 100G are all valid. The size option is mutually exclusive of the time interval options, and it causes log files to be rotated without regard for the last rotation time.

**Value**—Integer in the range k|M|G
**Editing Level**—Basic

`no-create`—(Optional) New log files are not created (this overrides the create option).

**Editing Level**—Basic

`copy-truncate`—(Optional) Truncate the original log file after creating a copy, instead of moving the old log file and optionally creating a new one. When set, this option copies the active log file to a backup and truncates the active log file. This option is useful when programs can not be instructed to close their log file and thus might continue writing (appending) to the previous log file forever.

**Editing Level**—Basic

`if-empty`—(Optional) Rotate the log file even if it is empty.

**Editing Level**—Basic

`missing-ok`—(Optional) If the log file is missing, go on to the next one without issuing an error message.

**Editing Level**—Basic

`filenames` *`filenames`*— Names of the log files to rotate.

**Value**—Text
**Editing Level**—Basic

`shared-scripts`—(Optional) Normally, the scripts you specify with the pre-rotate and post-rotate options are run for each log which is rotated and the absolute path to the log file is passed as the first argument to the script. This means a single script may be run multiple times for log file entries which match multiple files. If you specify the shared-scripts option, the scripts are only run once, regardless of how many logs match the wildcard pattern, and the entire pattern is passed to them. However, if none of the logs in the pattern require rotating, the scripts are not run at all. If the scripts exit with error, the remaining actions are not executed for any logs.

**Editing Level**—Basic

`pre-rotate` *`pre-rotate`*—(Optional) The lines between pre-rotate and endscript (both of which must appear on lines by themselves) are executed (using /bin/sh) before the log file is rotated and only if the log will actually be rotated. These directives may only appear inside a log file definition. Normally, the absolute path to the log file is passed as first argument to the script. If the shared-scripts option is specified, the whole pattern is passed to the script.

**Value**—Multi-line text
**Editing Level**—Basic

`post-rotate` *`post-rotate`*—(Optional) The lines between the post-rotate and endscript (both of which must appear on lines by themselves) are executed (using /bin/sh) after the log file is rotated. These directives may only appear inside a log file definition. Normally, the absolute path to the log file is passed as the first argument to the script. If the shared-scripts option is specified, the entire pattern is passed to the script.

**Value**—Multi-line text
**Editing Level**—Basic

`first-action` *`first-action`*—(Optional) The lines between first-action and endscript (both of which must appear on lines by themselves) are executed (using /bin/sh) once before all log files that match the wildcard pattern are rotated, before the pre-rotate script is run, and only if at least one log file is actually to be rotated. These directives may only appear inside a log file definition. The entire pattern is passed to the script as the first argument. If the script exits with error, no further processing is performed.

**Value**—Multi-line text
**Editing Level**—Basic

`last-action` *`last-action`*—(Optional) The lines between last-action and endscript (both of which must appear on lines by themselves) are executed (using /bin/sh) once after all log files that match the wildcard pattern are rotated, after the post-rotate script is run, and only if at least one log is rotated. These directives may only appear inside a log file definition. The entire pattern is passed to the script as the first argument. If the script exits with error, just an error message is shown (because this is the last action).

**Value**—Multi-line text
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# system logrotate *file-name* logfiles *name* create

## Syntax

```
system logrotate file-name logfiles name create {
     default;
     mode mode;
     owner owner;
     group group;
}
```

## Hierarchy Level

```
[edit system logrotate file-name logfiles name create]
```

## Release Information

Statement introduced in SRC Release 4.3.0

## Description

Create log file immediately after rotation (before the post-rotate script is run). Create the log file with the same name as the log file just rotated. Mode specifies the mode for the log file in octal (the same as chmod(2)). Owner specifies the username that owns the log file. Group specifies the group the log file belongs to. Any of the log file attributes may be omitted, in which case those attributes for the new file use the same values as the original log file for the omitted attributes. This option can be disabled using the no-create option.

## Options

`default`—(Optional) New log files are created with the same permission, owner, and group as the original log file.

**Editing Level**—Basic

`mode` *`mode`*— New log files are created with the specified mode in octal, for example 0644.

**Value**—Text
**Editing Level**—Basic

`owner` *`owner`*— New log files are created with the specified owner (username).

**Value**—Text
**Editing Level**—Basic

`group` *`group`*— New log files are created with the specified group.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# system logrotate logrotate.conf

### Syntax

```
system logrotate logrotate.conf {
     compress;
     delay-compress;
     copy;
     daily;
     weekly;
     monthly;
     rotate rotate;
     size size;
     no-create;
     copy-truncate;
     if-empty;
     missing-ok;
}
```

### Hierarchy Level

```
[edit system logrotate logrotate.conf]
```

### Release Information

Statement introduced in SRC Release 4.3.0

### Description

Configure the global logrotate configuration file. This file defines global directives and includes all other logrotate configuration files which set their own local directives. Local directives can override global directives.

`compress`—(Optional) Old versions of log files are compressed with gzip by default.

**Editing Level**—Basic

`delay-compress`—(Optional) Postpone compression of the previous log file to the next rotation cycle. This only has effect when used in combination with the compress option. This option can be used when a program cannot be instructed to close its log file and thus may continue writing to the previous log file for some time.

**Editing Level**—Basic

`copy`—(Optional) Make a copy of the log file but do not modify the original log file. Use this option to make a snapshot of the current log file, or when some other utility needs to truncate or parse the file. When this option is used, the create option has no effect because the original log file stays in place.

**Editing Level**—Basic

`daily`—(Optional) Log files are rotated every day.

**Editing Level**—Basic

`weekly`—(Optional) Log files are rotated each week. This option rotates log files if the current weekday is less than the weekday of the last rotation, or if more than a week has passed since the last rotation.

**Editing Level**—Basic

`monthly`—(Optional) Log files are rotated each month. This option rotates log files the first time logrotate is run in a month (this is normally on the first day of the month).

**Editing Level**—Basic

`rotate` *`rotate`*—(Optional) Rotate log files the specified number times before removing them. If set to 0, old versions are removed rather than rotated.

**Value**—Integer in the range 0–2147483647
**Editing Level**—Basic

`size` *`size`*—(Optional) Log files are rotated when they grow larger than the specified size in bytes. If size is followed by k, the size is assumed to be in kilobytes. If size is followed by M, the size is assumed to be in megabytes. If size is followed by G, the size is assumed to be in gigabytes. For example, size 100, size 100k, size 100M, and size 100G are all valid. The size option is mutually exclusive of the time interval options, and it causes log files to be rotated without regard for the last rotation time.

**Value**—Integer in the range k|M|G
**Editing Level**—Basic

`no-create`—(Optional) New log files are not created (this overrides the create option).

**Editing Level**—Basic

`copy-truncate`—(Optional) Truncate the original log file after creating a copy, instead of moving the old log file and optionally creating a new one. When set, this option copies the active log file to a backup and truncates the active log file. This option is useful when programs can not be instructed to close their log file and thus might continue writing (appending) to the previous log file forever.

**Editing Level**—Basic

`if-empty`—(Optional) Rotate the log file even if it is empty.

**Editing Level**—Basic

`missing-ok`—(Optional) If the log file is missing, go on to the next one without issuing an error message.

**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Advanced

# system logrotate logrotate.conf create

## Syntax

```
system logrotate logrotate.conf create {
     default;
     mode mode;
     owner owner;
     group group;
}
```

## Hierarchy Level

```
[edit system logrotate logrotate.conf create]
```

## Release Information

Statement introduced in SRC Release 4.3.0

## Description

Create log file immediately after rotation (before the post-rotate script is run). Create the log file with the same name as the log file just rotated. Mode specifies the mode for the log file in octal (the same as chmod(2)). Owner specifies the username that owns the log file. Group specifies the group the log file belongs to. Any of the log file attributes may be omitted, in which case those attributes for the new file use the same values as the original log file for the omitted attributes. This option can be disabled using the no-create option.

## Options

`default`—(Optional) New log files are created with the same permission, owner, and group as the original log file.

**Editing Level**—Basic

`mode` *`mode`*— New log files are created with the specified mode in octal, for example 0644.

**Value**—Text
**Editing Level**—Basic

`owner` *`owner`*— New log files are created with the specified owner (username).

**Value**—Text
**Editing Level**—Basic

`group` *`group`*— New log files are created with the specified group.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# system logrotate logrotate.conf logfiles

## Syntax

```
system logrotate logrotate.conf logfiles name {
     compress;
     delay-compress;
     copy;
     daily;
     weekly;
     monthly;
     rotate rotate;
     size size;
     no-create;
     copy-truncate;
     if-empty;
     missing-ok;
     filenames filenames;
     shared-scripts;
     pre-rotate pre-rotate;
     post-rotate post-rotate;
     first-action first-action;
     last-action last-action;
}
```

## Hierarchy Level

```
[edit system logrotate logrotate.conf logfiles]
```

## Release Information

Statement introduced in SRC Release 4.3.0

## Description

Configure local options for specific log files.

## Options

`name` *`name`*— One or more log files.

**Value**—Text

`compress`—(Optional) Old versions of log files are compressed with gzip by default.

**Editing Level**—Basic

`delay-compress`—(Optional) Postpone compression of the previous log file to the next rotation cycle. This only has effect when used in combination with the compress option. This option can be used when a program cannot be instructed to close its log file and thus may continue writing to the previous log file for some time.

**Editing Level**—Basic

`copy`—(Optional) Make a copy of the log file but do not modify the original log file. Use this option to make a snapshot of the current log file, or when some other utility needs to truncate or parse the file. When this option is used, the create option has no effect because the original log file stays in place.

**Editing Level**—Basic

`daily`—(Optional) Log files are rotated every day.

**Editing Level**—Basic

`weekly`—(Optional) Log files are rotated each week. This option rotates log files if the current weekday is less than the weekday of the last rotation, or if more than a week has passed since the last rotation.

**Editing Level**—Basic

`monthly`—(Optional) Log files are rotated each month. This option rotates log files the first time logrotate is run in a month (this is normally on the first day of the month).

**Editing Level**—Basic

`rotate` *`rotate`*—(Optional) Rotate log files the specified number times before removing them. If set to 0, old versions are removed rather than rotated.

**Value**—Integer in the range 0–2147483647
**Editing Level**—Basic

`size` *`size`*—(Optional) Log files are rotated when they grow larger than the specified size in bytes. If size is followed by k, the size is assumed to be in kilobytes. If size is followed by M, the size is assumed to be in megabytes. If size is followed by G, the size is assumed to be in gigabytes. For example, size 100, size 100k, size 100M, and size 100G are all valid. The size option is mutually exclusive of the time interval options, and it causes log files to be rotated without regard for the last rotation time.

**Value**—Integer in the range k|M|G
**Editing Level**—Basic

`no-create`—(Optional) New log files are not created (this overrides the create option).

**Editing Level**—Basic

`copy-truncate`—(Optional) Truncate the original log file after creating a copy, instead of moving the old log file and optionally creating a new one. When set, this option copies the active log file to a backup and truncates the active log file. This option is useful when programs can not be instructed to close their log file and thus might continue writing (appending) to the previous log file forever.

**Editing Level**—Basic

`if-empty`—(Optional) Rotate the log file even if it is empty.

**Editing Level**—Basic

`missing-ok`—(Optional) If the log file is missing, go on to the next one without issuing an error message.

**Editing Level**—Basic

`filenames` *`filenames`*— Names of the log files to rotate.

**Value**—Text
**Editing Level**—Basic

`shared-scripts`—(Optional) Normally, the scripts you specify with the pre-rotate and post-rotate options are run for each log which is rotated and the absolute path to the log file is passed as the first argument to the script. This means a single script may be run multiple times for log file entries which match multiple files. If you specify the shared-scripts option, the scripts are only run once, regardless of how many logs match the wildcard pattern, and the entire pattern is passed to them. However, if none of the logs in the pattern require rotating, the scripts are not run at all. If the scripts exit with error, the remaining actions are not executed for any logs.

**Editing Level**—Basic

`pre-rotate` *`pre-rotate`*—(Optional) The lines between pre-rotate and endscript (both of which must appear on lines by themselves) are executed (using /bin/sh) before the log file is rotated and only if the log will actually be rotated. These directives may only appear inside a log file definition. Normally, the absolute path to the log file is passed as first argument to the script. If the shared-scripts option is specified, the whole pattern is passed to the script.

**Value**—Multi-line text
**Editing Level**—Basic

`post-rotate` *`post-rotate`*—(Optional) The lines between the post-rotate and endscript (both of which must appear on lines by themselves) are executed (using /bin/sh) after the log file is rotated. These directives may only appear inside a log file definition. Normally, the absolute path to the log file is passed as the first argument to the script. If the shared-scripts option is specified, the entire pattern is passed to the script.

**Value**—Multi-line text
**Editing Level**—Basic

`first-action` *`first-action`*—(Optional) The lines between first-action and endscript (both of which must appear on lines by themselves) are executed (using /bin/sh) once before all log files that match the wildcard pattern are rotated, before the pre-rotate script is run, and only if at least one log file is actually to be rotated. These directives may only appear inside a log file definition. The entire pattern is passed to the script as the first argument. If the script exits with error, no further processing is performed.

**Value**—Multi-line text
**Editing Level**—Basic

`last-action` *`last-action`*—(Optional) The lines between last-action and endscript (both of which must appear on lines by themselves) are executed (using /bin/sh) once after all log files that match the wildcard pattern are rotated, after the post-rotate script is run, and only if at least one log is rotated. These directives may only appear inside a log file definition. The entire pattern is passed to the script as the first argument. If the script exits with error, just an error message is shown (because this is the last action).

**Value**—Multi-line text
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Basic

# system logrotate logrotate.conf logfiles *name* create

### Syntax

```
system logrotate logrotate.conf logfiles name create {
     default;
     mode mode;
     owner owner;
     group group;
}
```

### Hierarchy Level

```
[edit system logrotate logrotate.conf logfiles name create]
```

### Release Information

Statement introduced in SRC Release 4.3.0

### Description

Create log file immediately after rotation (before the post-rotate script is run). Create the log file with the same name as the log file just rotated. Mode specifies the mode for the log file in octal (the same as chmod(2)). Owner specifies the username that owns the log file. Group specifies the group the log file belongs to. Any of the log file attributes may be omitted, in which case those attributes for the new file use the same values as the original log file for the omitted attributes. This option can be disabled using the no-create option.

### Options

`default`—(Optional) New log files are created with the same permission, owner, and group as the original log file.

**Editing Level**—Basic

`mode` *`mode`*— New log files are created with the specified mode in octal, for example 0644.

**Value**—Text
**Editing Level**—Basic

`owner` *`owner`*— New log files are created with the specified owner (username).

**Value**—Text
**Editing Level**—Basic

`group` *`group`*— New log files are created with the specified group.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# system ntp

## Syntax

```
system ntp {
     boot-server boot-server;
     broadcast-client;
     disable-monitor;
     trusted-key [trusted-key...];
}
```

## Hierarchy Level

```
[edit system ntp]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure NTP.

We strongly recommend that you configure NTP on every server used for an SRC deployment. The system may not recognize subscriber sessions if the clocks are not synchronized.

## Options

`boot-server` *`boot-server`*—(Optional) Server that NTP queries when at boot time to determine the local date and time.

When you boot the system on which the SRC software runs, the system issues an ntpdate request, which polls a network server to determine the local date and time. You can configure a server that the system uses to determine the time at startup. If no boot server is configured, NTP uses one of the configured servers to set the initial time.

**Value**— IP address of an NTP server
**Default**— No value
**Editing Level**—Basic

`broadcast-client`—(Optional) Listen for NTP broadcast messages on the local network to discover other servers on the same subnet.

**Editing Level**—Basic

`disable-monitor`—(Optional) Disable NTP monitoring feature

**Editing Level**—Basic

`trusted-key [trusted-key...]`—(Optional) List of keys you are allowed to use when you configure the local system to synchronize its time with other systems on the network.

**Value**— Positive signed 32-bit integer (1–2147483647)
**Default**— No value
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# system ntp authentication-key

## Syntax

```
system ntp authentication-key key-number {
     value value;
}
```

## Hierarchy Level

```
[edit system ntp authentication-key]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure NTP authentication keys so that the C Series Controller can send authenticated packets. If you configure the C Series Controller to operate in authenticated mode, you must configure a key.

NTP authentication uses the MD5 encryption algorithm.

## Options

`key-number` *`key-number`*— Positive integer that identifies the NTP authentication key.

**Value**—Integer in the range 1–2147483647

`value` *`value`*— The value of the NTP authentication, which can contain 1–8 ASCII characters.

**Value**—Secret text
**Default**— No value
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# system ntp broadcast

## Syntax

```
system ntp broadcast address {
     key key;
     ttl ttl;
     version version;
}
```

## Hierarchy Level

```
[edit system ntp broadcast]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure the C Series Controller to operate in broadcast mode with the remote system at the specified address. In this mode, the local system sends periodic broadcast messages to a client population at the specified broadcast or multicast address. Typically, you include this statement only when the local system is operating as a transmitter.

## Options

`address` *`address`*— IP address to receive broadcast or multicast periodic broadcast messages.

**Value**— IP address

`key` *`key`*—(Optional) Value of the authentication key used to encrypt authentication fields in all packets sent to the broadcast or multicast address.

**Value**— Positive signed 32-bit integer (1–2147483647)
**Default**— No value
**Editing Level**—Basic

`ttl` *`ttl`*—(Optional) TTL value to transmit.

**Value**—Integer in the range 1–255
**Default**— No value
**Editing Level**—Basic

`version` *`version`*—(Optional) Version number of NTP to use in outgoing NTP packets.

**Value**—Integer in the range 1–4
**Default**— No value
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# system ntp multicast-client

## Syntax

```
system ntp multicast-client {
     address;
}
```

## Hierarchy Level

```
[edit system ntp multicast-client]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Listen for NTP multicast messages on the local network to discover other servers on the same subnet.

## Options

*address*—(Optional) IP address(s). If you specify more than one address, the system joins those multicast groups.

**Value**—IP address
**Default**— No value
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# system ntp peer

## Syntax

```
system ntp peer address {
     key key;
     version version;
     prefer;
}
```

## Hierarchy Level

```
[edit system ntp peer]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure the C Series Controller to operate in symmetric active mode with the remote system at the specified address. In this mode, the C Series Controller and the remote system can synchronize with each other. This configuration is useful in a network in which either the local router or the remote system might be a better source of time.

## Options

`address` *`address`*— IP address of an NTP peer. Do not specify a hostname.

**Value**—IP address

`key` *`key`*—(Optional) Key number used to encrypt all authentication fields in packets sent to the specified address.

**Value**— Positive signed 32-bit integer (1–2147483647)
**Default**— No value
**Editing Level**—Basic

`version` *`version`*—(Optional) Version number of NTP to be used in outgoing packets.

**Value**—Integer in the range 1–4
**Default**— No value
**Editing Level**—Basic

`prefer`—(Optional) Remote system is the preferred host. This remote system is then

selected for synchronization among a set of systems that are operating correctly.

**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# system ntp server

## Syntax

```
system ntp server address {
     key key;
     version version;
     prefer;
}
```

## Hierarchy Level

```
[edit system ntp server]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure the C Series Controller to operate in client mode with the remote system at the specified address. In this mode, the C Series Controller can be synchronized with the remote system, but the remote system can never be synchronized with the C Series Controller.

## Options

`address` *`address`*— IP address of an NTP server. Do not specify a hostname.

**Value**—IP address

`key` *`key`*—(Optional) Key number used to encrypt all authentication fields in packets sent to the specified address.

**Value**— Positive signed 32-bit integer (1–2147483647)
**Default**— No value
**Editing Level**—Basic

`version` *`version`*—(Optional) Version number of NTP to be used in outgoing packets.

**Value**—Integer in the range 1–4
**Default**— No value
**Editing Level**—Basic

`prefer`—(Optional) Remote system is the preferred host. This remote system is then selected for synchronization among a set of systems that are operating correctly.

**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# system radius-server

## Syntax

```
system radius-server address {
     port port;
     secret secret;
     timeout timeout;
     retry retry;
}
```

## Hierarchy Level

```
[edit system radius-server]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure RADIUS authentication. To use more than one RADIUS server, include a `radius-server` statement for each server. The software contacts the servers in order in a round-robin fashion until it receives a valid response from one of the servers or until the retry limit is reached for all servers.

To configure RADIUS for authentication, also include `radius` in the `authentication-order` option for the `system` statement.

For a user authenticated through RADIUS to be able to log in to the C Series Controller, you must create either a local profile or a remote profile to define common access privileges for all users authenticated through RADIUS or TACACS+. For information about creating user profiles, see the `system login user` statement.

## Options

`address` *`address`*— IP address of RADIUS server.

**Value**— IP address

`port` *`port`*—(Optional) [Alias: authentication-port ] Port number on which to connect to a RADIUS server.

**Value**—Integer in the range 0–65535
**Default**—1812
**Editing Level**—Basic

`secret` *`secret`*— Password to use with the RADIUS server. This secret password is used by the C Series Controller and must match the password on the RADIUS server.

**Value**— password
**Editing Level**—Basic

`timeout` *`timeout`*—(Optional) Amount of time (in seconds) that the C Series Controller waits to receive a response from the RADIUS server.

**Value**—Integer in the range 1–90 s
**Default**—3
**Editing Level**—Basic

`retry` *`retry`*—(Optional) Number of times the C Series Controller tries to contact a RADIUS server.

**Value**—Integer in the range 1–10
**Default**—3
**Editing Level**—Basic

**Required Privilege Level**

system

**Required Editing Level**

Basic

# system schedule

## Syntax

```
system schedule name {
     day-of-week day-of-week;
     month month;
     day-of-month day-of-month;
     hour hour;
     minute minute;
     special (reboot | yearly | annually | monthly | weekly | daily | midnight |
hourly);
     script script;
     command command;
}
```

## Hierarchy Level

```
[edit system schedule]
```

## Release Information

Statement introduced in SRC Release 4.6.0

## Options

`name` *`name`*— Name of the schedule job

**Value**—Text

`day-of-week` *`day-of-week`*—(Optional) Day of Week entry is a comma separated field where each field can be a number (0=Sunday, 1=Monday, ... ), a three letter abbreviation (SUN, MON, TUE, WED, THU, FRI, SAT). Range can also be allowed (eg. SUN-MON). A range can be followed by step "/" values(e.g. MON-FRI/2 means every second day (MON, WED, FRI)).

**Value**—Text
**Default**—*
**Editing Level**—Basic

`month` *`month`*—(Optional) Month entry is a comma separated field where each field can be a number (1=JAN, 2=FEB, ... ), or a three letter abbreviation (JAN, FEB, MAR, APR...). Ranges like JAN-OCT is allowed. A range can also be followed by step "/" values (e.g. JAN-DEC/2 means every second month (JAN, MAR, MAY)).

**Value**—Text
**Default**—*
**Editing Level**—Basic

`day-of-month` *`day-of-month`*—(Optional) The day of month field includes comma separated values or ranges followed by step "/" values. (e.g. 1-5, 1-5/3 etc)

**Value**—Text
**Default**—*
**Editing Level**—Basic

`hour` *`hour`*—(Optional) Hour entry includes comma separated values or ranges followed by step "/" values. (e.g. 0-23, 10-20, 10-20/2 etc)

**Value**—Text
**Default**—*
**Editing Level**—Basic

`minute` *`minute`*—(Optional) Minute entry includes comma separated values or ranges followed by step "/" values. (e.g. 0-59, 10-30/5, etc)

**Value**—Text
**Default**—*
**Editing Level**—Basic

`special (reboot | yearly | annually | monthly | weekly | daily | midnight | hourly)`—(Optional) Special string configuration for a schedule. If the special string set, it overrides the periodic configuration

**Value**

- `reboot`— Runs at boot and re-boot only
- `yearly`— Runs at midnight of Jan 1 every year (equiv to 0 0 1 1 *)
- `annually`— Same as yearly
- `monthly`— Runs at the midnight on the first day of each month (equiv to 0 0 1 * *)
- `weekly`— Runs at the midnight of each sunday (equiv to 0 0 * * 0)
- `daily`— Runs at the midnight of each day (equiv to 0 0 * * *)
- `midnight`— Same as daily
- `hourly`— Runs on the first second of every hour (equiv to 0 * * * *)

**Editing Level**—Basic

`script` *`script`*—(Optional) CRON Schedule executable script. May include output suppression and redirection

**Value**—Text
**Editing Level**—Expert

`command` *`command`*—(Optional) CRON Schedule execution command. May include output suppression and redirection

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# system services

### Syntax

```
system services {
     telnet;
     sftp;
}
```

### Hierarchy Level

```
[edit system services]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure system services.

### Options

`telnet`—(Optional) Allow Telnet connections from remote systems to the C Series Controller.

**Note:** Telnet connections do not allow access through `root`.

**Editing Level**—Basic

`sftp`—(Optional) Allow SFTP requests from a remote system to the C Series Controller.

**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Basic

# system services editor

## Syntax

```
system services editor {
     password-encryption (crypt | md5 | sha | plain);
}
```

## Hierarchy Level

```
[edit system services editor]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure access properties for external access to the Policies, Services, and Subscribers Editor.

## Options

`password-encryption (crypt | md5 | sha | plain)`—(Optional) Encrypt the passwords of users who remotely access the Policies, Services, and Subscribers Editor using the specified encryption algorithm.

**Value**

- `crypt`— UNIX crypt, a one-way encryption.
- `md5`— Message Digest 5 (MD5), a 128-bit message digest.
- `sha`— SHA message digest, a 160-bit message digest.
- `plain`— No encryption.

**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# system services editor policy-editor

## Syntax

```
system services editor policy-editor {
     directory-eventing;
}
```

## Hierarchy Level

```
[edit system services editor policy-editor]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure properties for the policy editor.

## Options

`directory-eventing`—(Optional) Enable policy editor to poll the directory for changes.

**Default**—true
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# system services netconf ssh

## Syntax

```
system services netconf ssh {
     port port;
}
```

## Hierarchy Level

```
[edit system services netconf ssh]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Use SSH for NETCONF connections.

## Options

`port` *`port`*—(Optional) TCP port listening for NETCONF/SSH connections. The port reserved by IANA for NETCONF/SSH is 830, older versions of SRC used 32000

**Value**—Integer in the range 1–65535
**Default**— 32000
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# system services ssh

### Syntax

```
system services ssh {
     root-login (allow | deny | deny-password);
     protocol-version (v1 | v2);
     port port;
}
```

### Hierarchy Level

`[edit system services ssh]`

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Allow SSH requests from remote systems to the C Series Controller.

### Options

`root-login (allow | deny | deny-password)`—(Optional) Control user access through SSH.

**Value**

- `allow`— Allow users to log in to the C Series Controller as `root` through SSH.(Default)
- `deny`— Disable users from logging in to the C Series Controller as `root` through SSH.
- `deny-password`— Allow users to log in to the C Series Controller as `root` through SSH when the authentication method (for example, RSA authentication) does not require a password.

**Editing Level**—Basic

`protocol-version (v1 | v2)`—(Optional) SSH protocol versions accepted.

**Value**

- `v1`—SSH version 1
- `v2`—SSH version 2 (Default)

**Editing Level**—Basic

`port` *`port`*—(Optional) The port SSHD listens on.If not specified, 22 is used

**Value**—Integer in the range 1–65535
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# system services web-management http

## Syntax

```
system services web-management http {
     port port;
     interface [interface...];
}
```

## Hierarchy Level

```
[edit system services web-management http]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Use HTTP without encryption.

## Options

`port` *`port`*—(Optional) TCP port to be used for incoming connections to the C-Web interface.

**Value**—Integer in the range 1–65535
**Default**—80
**Editing Level**—Basic

`interface [`*`interface...`*`]`—(Optional) List of network interfaces to accept incoming connections. If you do not specify any interfaces, the software accepts connections from all interfaces.

**Value**— Name of external interface, such as eth0.
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# system services web-management https

## Syntax

```
system services web-management https {
     port port;
     interface [interface...];
     local-certificate local-certificate;
}
```

## Hierarchy Level

```
[edit system services web-management https]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Use secure HTTP with encryption.

## Options

`port` *`port`*—(Optional) TCP port to be used for incoming connections to the C-Web interface.

**Value**—Integer in the range 1–65535
**Default**—443
**Editing Level**—Basic

`interface [`*`interface...`*`]`—(Optional) List of network interfaces to accept incoming connections. If you do not specify any interfaces, the software accepts connections from all interfaces.

**Value**— Name of external interface, such as eth0.
**Editing Level**—Basic

`local-certificate` *`local-certificate`*—(Optional) Name of the security certificate (in X.509 format) on the local system. This certificate is used to secure connections from external Web browsers to the C-Web interface.

**Value**— Name of digital security certificate.
**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# system services web-management logger

## Syntax

```
system services web-management logger name ...
```

## Hierarchy Level

```
[edit system services web-management logger]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure a logging component for the C-Web interface. Logging can be to a file or to the system logging utility.

## Options

`name` *`name`*— Name of a logging component.

**Value**—Text

## Required Privilege Level

system system

## Required Editing Level

Basic

# system services web-management logger *name* file

### Syntax

```
system services web-management logger name file {
     filter filter;
     device-filter-key device-filter-key;
     filename filename;
     rollover-filename rollover-filename;
     maximum-file-size maximum-file-size;
}
```

### Hierarchy Level

```
[edit system services web-management logger name file]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure logging of messages to a file.

`filter` *`filter`*—(Optional) Filter to define which event messages the software logs or ignores. Filters can specify the logging level, such as debug, or can specify expressions. For information about expressions, see the documentation that describes how to configure logging.

**Value**— Log filter
**Default**— The default value is different for each type of component.
**Editing Level**—Basic

`device-filter-key` *`device-filter-key`*—(Optional) Filter the DEBUG logs specific to network device. The filtering can be done based on combinations of parameters namely router-name/interface-name/login-name. These parameters can be associated using AND (&) or OR (|) operators. Syntax: set device-filter-key (router-name=<val> & interface-name=<val> | login-name=<val> All three parameters are optional. Absence of a parameter would indicate match ANY. Example: set device-filter-key (router-name=<val>) would indicate match debug logs based on the router-name only irrespective of the interface-name or login-name. Note: 1. "device-filter-key" will NOT filter info/error/warning logs. 2. This version supports network device specific logging for COPs drivers only

**Value**— Log network device filter
**Default**— The default value is different for each type of component.
**Editing Level**—Basic

`filename` *`filename`*— Absolute path of the filename that contains the current logs.

**Note:** Make sure that the user under which the J2EE application server or Web application server runs has write access to this folder. If this user does not have write access to the default folder, configure the component or application to write logs in folders to which the user has write access.

**Value**— Filename
**Default**— By default, SRC components and applications write log files in the folder in which the component or application is started.
**Editing Level**—Basic

`rollover-filename` *`rollover-filename`*—(Optional) Absolute path of the filename that contains the log history. When the log file reaches the maximum size, the software closes the log file and renames it with the name you specify for the rollover file. If a previous rollover file exists, the software overwrites it. The software then reopens the log file and continues to save event messages in it.

**Value**— Path of filename

Example—/opt/UMC/sae/var/log/sae.alt

**Default**— The default value is different for each type of component.
**Editing Level**—Normal

`maximum-file-size` *`maximum-file-size`*—(Optional) Maximum size of the log file and the rollover file.

Do not set the maximum file size to a value greater than the available disk space.

**Value**—Integer in the range 0–10000000 kbytes
**Default**— 1000000
**Editing Level**—Normal

## Required Privilege Level

system system

## Required Editing Level

Basic

# system services web-management logger *name* syslog

### Syntax

```
system services web-management logger name syslog {
     filter filter;
     host host;
     port port;
     facility facility;
     format format;
}
```

### Hierarchy Level

```
[edit system services web-management logger name syslog]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure logging of messages to system logging.

`filter` *`filter`*—(Optional) Filter to define which event messages the software logs or ignores. Filters can specify the logging level, such as debug, or can specify expressions. For information about expressions, see the documentation that describes how to configure logging.

**Value**— Log filter
**Default**— The default value is different for each type of component.
**Editing Level**—Basic

`host` *`host`*— IP address or name of a host that collects event messages by means of a standard system logging daemon.

**Value**— IP address or hostname
**Default**—loghost
**Editing Level**—Basic

`port` *`port`*—(Optional) Port number for system logging daemon.

**Value**— Port number in the range of 0–65535
**Default**— 514
**Editing Level**—Basic

`facility` *`facility`*—(Optional) Type of system log in accordance with the system logging protocol.

**Value**—Integer in the range 0–23
**Default**— 3
**Editing Level**—Advanced

`format` *`format`*—(Optional) MessageFormat string that specifies how the information in an event message is printed. (The strings {#} are replaced with the log information [...]).

**Value**— MessageFormat string as specified in http://java.sun.com/j2se/1.4.2/docs/api/java/text/MessageFormat.html.

The fields available for events are:

- 0—Time and date of the event
- 1—Name of the thread generating the event
- 2—Text message of the event
- 3—Category of the event
- 4—Priority of the event

**Editing Level**—Advanced

## Required Privilege Level

system system

## Required Editing Level

Basic

# system static-host-mapping

### Syntax

```
system static-host-mapping host-name {
     inet [inet...];
     alias [alias...];
}
```

### Hierarchy Level

```
[edit system static-host-mapping]
```

### Release Information

Statement introduced in SRC Release 2.0.0

### Description

Configure static mapping to resolve hostnames.

### Options

`host-name` *`host-name`*— Fully-qualified name of the system.

**Value**—Text

`inet [`*`inet...`*`]`—(Optional) [Alias: inet4 inet6 ] IP addresses to which you want to map the hostname.

**Value**—IP address
**Editing Level**—Basic

`alias [`*`alias...`*`]`—(Optional) Aliases for the hostname.

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# system syslog file

## Syntax

`system syslog file` *`file-name`* `...`

## Hierarchy Level

`[edit system syslog file]`

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Specify a file to store information that has been collected.

## Options

`file-name` *`file-name`*— Name of the file in which to log system messages.

**Value**— filename

## Required Privilege Level

system

## Required Editing Level

Basic

# system syslog file *file-name*

### Syntax

```
system syslog file file-name (any | authorization | daemon | ftp | kernel | user |
local7) {
     (any | emergency | alert | critical | error | warning | notice | info | none);
}
```

### Hierarchy Level

```
[edit system syslog file file-name]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure the message groups and severity level of messages to be forwarded to a specified file, host, or user.

### Options

Group of messages that are either generated by the same software process or concern a similar condition or activity (such as authentication attempts). A message group is referred to as a facility.

**Value**

- `any`— Messages from all facilities.
- `authorization`— Authentication and authorization attempts.
- `daemon`— Actions performed or errors encountered by various system processes.
- `ftp`— Actions performed or errors encountered by an FTP process.
- `kernel`— Actions performed or errors encountered by the kernel.
- `user`— Actions performed or errors encountered by various user processes.
- `local7`— Actions performed or errors encountered by different SRC processes.

Severity level

**Value**

- `any`— Messages for all severity levels.
- `emergency`— System panic or other condition that causes the system to

stop functioning.

- `alert`— Conditions that require immediate correction.
- `critical`— Critical conditions, such as hard drive errors.
- `error`— Error conditions that generally have less serious consequences than errors in the emergency, alert, and critical levels.
- `warning`— Conditions that warrant monitoring.
- `notice`— Conditions that are not errors but might warrant special handling.
- `info`— Events or nonerror conditions of interest.
- `none`— Messages are not generated for any condition.

**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# system syslog host

### Syntax

```
system syslog host log-host-name ...
```

### Hierarchy Level

```
[edit system syslog host]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure the IP address or hostname of the remote host to receive system log messages. The remote machine must be running a standard syslogd utility.

### Options

`log-host-name` *`log-host-name`*— IP address or hostname of a remote system to receive system log messages. The remote machine must be running a standard syslogd utility.

**Value**— IP address or hostame

### Required Privilege Level

system

### Required Editing Level

Basic

# system syslog host *log-host-name*

### Syntax

```
system syslog host log-host-name (any | authorization | daemon | ftp | kernel | user |
local7) {
     (any | emergency | alert | critical | error | warning | notice | info | none);
}
```

### Hierarchy Level

```
[edit system syslog host log-host-name]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure the message groups and severity level of messages to be forwarded to a specified file, host, or user.

### Options

Group of messages that are either generated by the same software process or concern a similar condition or activity (such as authentication attempts). A message group is referred to as a facility.

**Value**

- `any`— Messages from all facilities.
- `authorization`— Authentication and authorization attempts.
- `daemon`— Actions performed or errors encountered by various system processes.
- `ftp`— Actions performed or errors encountered by an FTP process.
- `kernel`— Actions performed or errors encountered by the kernel.
- `user`— Actions performed or errors encountered by various user processes.
- `local7`— Actions performed or errors encountered by different SRC processes.

Severity level

**Value**

- `any`— Messages for all severity levels.
- `emergency`— System panic or other condition that causes the system to

stop functioning.

- `alert`— Conditions that require immediate correction.
- `critical`— Critical conditions, such as hard drive errors.
- `error`— Error conditions that generally have less serious consequences than errors in the emergency, alert, and critical levels.
- `warning`— Conditions that warrant monitoring.
- `notice`— Conditions that are not errors but might warrant special handling.
- `info`— Events or nonerror conditions of interest.
- `none`— Messages are not generated for any condition.

**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# system syslog user

## Syntax

`system syslog user` *`user-name`* `...`

## Hierarchy Level

`[edit system syslog user]`

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Notify a specified user by means of a terminal session.

## Options

`user-name` *`user-name`*— Name of user to receive messages.

**Value**— Username

## Required Privilege Level

system

## Required Editing Level

Basic

# system syslog user *user-name*

### Syntax

```
system syslog user user-name (any | authorization | daemon | ftp | kernel | user |
local7) {
     (any | emergency | alert | critical | error | warning | notice | info | none);
}
```

### Hierarchy Level

```
[edit system syslog user user-name]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure the message groups and severity level of messages to be forwarded to a specified file, host, or user.

### Options

Group of messages that are either generated by the same software process or concern a similar condition or activity (such as authentication attempts). A message group is referred to as a facility.

**Value**

- `any`— Messages from all facilities.
- `authorization`— Authentication and authorization attempts.
- `daemon`— Actions performed or errors encountered by various system processes.
- `ftp`— Actions performed or errors encountered by an FTP process.
- `kernel`— Actions performed or errors encountered by the kernel.
- `user`— Actions performed or errors encountered by various user processes.
- `local7`— Actions performed or errors encountered by different SRC processes.

Severity level

**Value**

- `any`— Messages for all severity levels.
- `emergency`— System panic or other condition that causes the system to

stop functioning.

- `alert`— Conditions that require immediate correction.
- `critical`— Critical conditions, such as hard drive errors.
- `error`— Error conditions that generally have less serious consequences than errors in the emergency, alert, and critical levels.
- `warning`— Conditions that warrant monitoring.
- `notice`— Conditions that are not errors but might warrant special handling.
- `info`— Events or nonerror conditions of interest.
- `none`— Messages are not generated for any condition.

**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# system tacplus-server

### Syntax

```
system tacplus-server {
     address [address...];
     secret secret;
     source-address source-address;
}
```

### Hierarchy Level

```
[edit system tacplus-server]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure TACACS+ authentication.

To configure TACACS+ for authentication, also include `tacplus` in the `authentication-order` option for the `system` statement.

For a user authenticated through TACACS+ to be able to log into the C Series Controller, you must create either a local profile or a remote profile to define common access privileges for all users authenticated via RADIUS or TACACS+. For information about creating user profiles, see the `system login user` statement.

### Options

`address [address...]`— Address of TACACS+ authentication server.

**Value**— IP address
**Default**— No value
**Editing Level**—Basic

`secret secret`— Password to use with the RADIUS or TACACS+ server. The secret password used by the C Series Controller must match that used by the server.

**Value**—Secret text
**Default**— No value
**Editing Level**—Basic

`source-address source-address`—(Optional) The address of this server used when connecting to the TACACS+ server.

**Value**—Text
**Default**— No value
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# top

### Syntax

`top <command>`

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Return to the top level of the configuration hierarchy, which is indicated by the [edit] banner.

### Options

*command*—(Optional) Name of command to run from the top of configuration hierarchy.

**Note:** The following commands are not supported: **exit**, **rollback**, **run**, **top**

**Value**— Name of command to run
**Default**— No value

### Required Privilege Level

No specific privilege required.

# up

## Syntax

`up <number>`

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Move up in the hierarchy of configuration statements.

## Options

*number*—(Optional) Number of levels to move up in the hierarchy.

**Value**—Integer in the range 1–2147483647
**Default**—1

## Required Privilege Level

No specific privilege required.

# compare

### Syntax

`compare <filename>`

### Release Information

Command introduced in SRC Release 3.1.0

### Description

Display comparison of configuration changes to the active (running) configuration.

### Options

*`filename`*—(Optional) Name of file that contains the configuration changes. This file must be in plain-text format.

**Value**—Text

### Required Privilege Level

No specific privilege required.

# count

## Syntax

```
count
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Indicate number of occurrences.

## Required Privilege Level

No specific privilege required.

# display level

### Syntax

`display level` *`level`*

### Release Information

Command introduced in SRC Release 2.0.0

### Description

Display additional information.

### Options

`level` *`level`*— Display output for a hierarchy level, as indicated by the number of the hierarchy level. For example, NIC, SAE and ACP would be at hierarchy level 1.

**Value**—Integer in the range 0–2147483647
**Default**—-1

### Required Privilege Level

No specific privilege required.

# display xml

### Syntax

```
display (xml)
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Display additional information.

### Options

Type of information to display.

#### Value

- `xml`— Display information as XML tags.

### Required Privilege Level

No specific privilege required.

# except

### Syntax

`except` *`pattern`*

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Display text that does not match the specified pattern.

### Options

*`pattern`*— Pattern to hide.

**Value**— Text that forms the pattern.

### Required Privilege Level

No specific privilege required.

# find

## Syntax

`find` *`pattern`*

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Search for first occurrence of a specified pattern.

## Options

*`pattern`*— Pattern to locate.

**Value**— Text that forms the pattern.

## Required Privilege Level

No specific privilege required.

# last

### Syntax

`last <lines>`

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Display the last part of the output.

### Options

*`lines`*—(Optional) Number of lines from the last line backward.

**Value**—Integer in the range 0–2147483647
**Default**—10

### Required Privilege Level

No specific privilege required.

# match

## Syntax

`match` *`pattern`*

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display text that matches the specified pattern.

## Options

*`pattern`*— Pattern to match.

**Value**— Pattern to locate.

## Required Privilege Level

No specific privilege required.

# no-more

### Syntax

```
no-more
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Do not paginate output.

### Required Privilege Level

No specific privilege required.

# save

## Syntax

`save` *`filename`*

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Save output text to file.

## Options

*`filename`*— Name or URL of file to which to save output.

**Value**— Filename or URL

## Required Privilege Level

No specific privilege required.

# clear security certificate

### Syntax

```
clear security certificate <identifier identifier>
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Delete a digital certificate from the system.

### Options

`identifier` *`identifier`*—(Optional) Name of a local digital certificate.

**Value**— *`Certificate name`*

### Required Privilege Level

security

# clear security certificate-request

## Syntax

`clear security certificate-request <file-name file-name>`

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Delete a certificate request on the system.

## Options

`file-name file-name`—(Optional) Name of certificate signing request file. This file is stored in the `/tmp` directory and has the file-extension `.csr`.

**Value**— *`filename`*
**Default**—certreq

## Required Privilege Level

security

# clear security ssh

### Syntax

`clear security ssh known-host` *`known-host`*

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Clear (delete) cached SSH data.

### Options

`known-host` *`known-host`*— Name of known host to remove

**Value**— Hostname

### Required Privilege Level

security

# configure

## Syntax

```
configure <exclusive>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Enter configuration mode. In configuration mode, you enter hierarchical statements to define properties for the SRC software.

## Alias

edit

## Options

`exclusive`—(Optional) If you enter configuration mode with the exclusive lock on, you lock the candidate global configuration for as long as you remain in configuration mode.

## Required Privilege Level

configure

# disable

### Syntax

`disable component` *`component`*

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Stop an SRC component that is running on the system.

### Options

`component` *`component`*— Name of SRC component to stop.

To see a list of installed components, use the `show component` command.

**Value**— Component name

### Required Privilege Level

reset

# enable

## Syntax

`enable component` *`component`*

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Start a specified SRC component that is installed on the system.

## Options

`component` *`component`*— Name of SRC component to start.

**Value**— Component name

## Required Privilege Level

reset

# exit

## Syntax

```
exit
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Exit from the CLI session. If a session was established through SSH, you return to the local environment; if the session was established through Telnet or from a console, you return to the login prompt.

## Alias

quit

## Required Privilege Level

No specific privilege required.

# file archive

## Syntax

`file archive <compress> source source destination destination`

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Create an archive file on a C Series Controller.

## Options

`compress`—(Optional) Compress an archive file by using the GNU `gzip` utility to create a TGZ file.

`source source`— Directory path to archive.

**Value**— Directory path

`destination destination`— Name of archive file to be created.

**Value**— Filename

## Required Privilege Level

maintenance

# file checksum md5

## Syntax

`file checksum md5 path`

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Calculate an MD5 checksum of a file on a C Series Controller.

## Options

*path*— Directory path of the file.

**Value**— Directory path

## Required Privilege Level

maintenance

# file compare

### Syntax

`file compare < (context | unified) > <ignore-white-space> files` *`from-file to-file`*

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Compare files on a C Series Controller.

### Options

(Optional) Format for displaying differences between files.

**Value**

- `context`— Output shows the context for differences between the files. It shows which line was changed in one line listing, then the change for the line in a second line listing.
- `unified`— Output shows the differences between files in a unified format. A single listing of line numbers shows the line on which a change occurred, then the changed text.

`ignore-white-space`—(Optional) Differences in amount of white space ignored.

*`from-file`*—File to compare

**Value**— Filename

*`to-file`*—File to compare

**Value**— Filename

### Required Privilege Level

maintenance

# file copy

### Syntax

`file copy` *`source destination`*

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Copy files.

### Options

*`source`*— Source URL of file to copy.

**Value**— FTP or file URL

*`destination`*— Destination URL of file to copy.

**Value**— FTP or file URL

### Required Privilege Level

maintenance

# file create

### Syntax

`file create` *`filename`* `<encoding (base64) > content` *`content`*

### Release Information

Command introduced in SRC Release 3.1.0

### Description

Create a file with the provided content.

### Options

*`filename`*— The filename must be created in an existing directory that is writable by the logged in user. If the name of an existing file is selected, the existing file will be overwritten.

**Value**—Text

`encoding (base64)` —(Optional) Type of content encoding.

**Value**

- `base64`— Content is base64 encoded and will be decoded before content is written to file.

`content` *`content`*— When using the CLI, the content can be provided in a "here-document" using "<<*EOF*". The here-document ends when *EOF* is entered on a line by itself. *EOF* is an arbitrary string.

**Value**—Text

### Required Privilege Level

maintenance

# file delete

### Syntax

`file delete` *`file`*

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Delete a file on a C Series Controller.

### Options

*`file`*— File to delete.

**Value**— Filename

### Required Privilege Level

maintenance

# file list

## Syntax

`file list <recursive> <detail> <path>`

## Release Information

Command introduced in SRC Release 1.0.0

## Description

List files in a directory on a C Series Controller.

## Options

`recursive`—(Optional) Create recursive listing of files.

`detail`—(Optional) Provide information about the files in a listing of files, such as modification date and file size.

*`path`*—(Optional) Path to the directory in which you list files.

**Value**— Pathname

## Required Privilege Level

maintenance

# file monitor

### Syntax

`file monitor` *`filename`*

### Release Information

Command introduced in SRC Release 2.0.0

### Description

Show online updates of a file

### Options

*`filename`*—Filename to monitor

**Value**—Text

### Required Privilege Level

maintenance

# file rename

## Syntax

`file rename` *`source destination`*

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Rename a file on a C Series Controller.

## Options

*`source`*— File to rename.

**Value**— Filename

*`destination`*— New name for file to be renamed.

**Value**— Filename

## Required Privilege Level

maintenance

# file show

### Syntax

`file show <encoding (base64) > filename`

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Display content of a file.

### Options

`encoding (base64)` —(Optional) Type of file encoding.

**Value**

- `base64`— File has base64 encoding.

*`filename`*— Name of file for which to display content.

**Value**— Filename

### Required Privilege Level

maintenance

# ipmisol close local-session

## Syntax

```
ipmisol close local-session
```

## Release Information

Command introduced in SRC Release 2.0.0

## Description

Close the active IPMI connection to the local host. At any time, only one IPMI Serial-Over-LAN connection to an IPMI interface is allowed.

## Required Privilege Level

network

# ipmisol close remote-session

### Syntax

`ipmisol close remote-session host` *`host`* `user` *`user`*

### Release Information

Command introduced in SRC Release 2.0.0

### Description

Close the active IPMI connection to a specific remote host. At any time, only one IPMI Serial-Over-LAN connection to an IPMI interface is allowed.

### Options

`host` *`host`*— IP address of IPMI interface on the remote host.

**Value**— IP address

`user` *`user`*— IPMI username configured on the remote host.

**Value**— Username

### Required Privilege Level

network

# ipmisol open

## Syntax

`ipmisol open host` *`host`* `user` *`user`*

## Release Information

Command introduced in SRC Release 2.0.0

## Description

Open a remote serial console using IPMI Serial-Over-LAN. The remote system must have IPMI configured.

## Options

`host` *`host`*— IP address of IPMI interface on the remote host.

**Value**— IP address

`user` *`user`*— IPMI username configured on the remote host.

**Value**— Username

## Required Privilege Level

network

# ping

### Syntax

```
ping <count count> <interval interval> <interface interface> <no-resolve> <tos tos>
<ttl ttl> <size size> <pattern pattern> host
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Determine whether a remote host is reachable by sending ping requests to the remote host.

### Options

`count` *`count`*—(Optional) Number of ping requests to send.

**Value**—Integer in the range 1–2000000000 packets

`interval` *`interval`*—(Optional) Interval between ping requests.

**Value**—Integer in the range 1–2147483647 s

`interface` *`interface`*—(Optional) Interface from which to send a ping request.

**Value**— Interface name; for example, eth0.

`no-resolve`—(Optional) Do not display symbolic addresses in command output.

`tos` *`tos`*—(Optional) Value of IP type-of-service byte.

**Value**—Integer in the range 0–255

`ttl` *`ttl`*—(Optional) Maximum number of hops between the source and the destination.

**Value**— Number of hops

`size` *`size`*—(Optional) Number of bytes of data to be sent.

**Value**—Integer in the range 0–65468
**Default**— 56. This value translates to 64 ICMP bytes that includes the 8 bytes for ICMP header data.

`pattern` *`pattern`*—(Optional) Number of bytes to fill, or pad, the packet to send. You can use this option to diagnose data-dependent problems in a network. For example, pattern ff causes all ones to fill the sent packet.

**Value**— Hexadecimal fill pattern. Up to 16 bytes to fill the packet to send.

*`host`*— IP address or hostname of remote host.

**Value**— IP address or hostname

## Required Privilege Level

network

# request disk disable

## Syntax

```
request disk disable <device device>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Disable a specified disk in the disk mount.

## Options

`device` *`device`*—(Optional) Number assigned to the disk to be disabled, 0 or 1.

**Value**—Integer in the range 0–3
**Default**—0

## Required Privilege Level

maintenance

# request disk enable

## Syntax

```
request disk enable <device device>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Enable a specified disk in the disk mount.

## Options

`device` *`device`*—(Optional) Number assigned to the disk to be enabled, 0 or 1.

**Value**—Integer in the range 0–3
**Default**—0

## Required Privilege Level

maintenance

# request disk identify

## Syntax

```
request disk identify <device device>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Turn on LED blinking for a specified disk on a C Series Controller to identify which disk is disk 0 and which is disk 1.

## Options

`device` *`device`*—(Optional) Number assigned to a disk, 0 or 1.

**Value**—Integer in the range 0–3
**Default**—0

## Required Privilege Level

maintenance

# request disk initialize

## Syntax

```
request disk initialize <device device> <force>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Initialize a specified disk in the disk mount.

## Options

`device` *`device`*—(Optional) Number assigned to the disk to be initialized, 0 or 1.

**Value**—Integer in the range 0–3
**Default**—0

`force`—(Optional) Initialize a specified disk.

**Note:**When you run this command and specify a disk that contains data, the command initializes the disk and the data on the disk is lost.

## Required Privilege Level

maintenance

# request ipmi power

### Syntax

```
request ipmi power (on | off | soft-off | reset | cycle)
```

### Release Information

Command introduced in SRC Release 3.0.0

### Description

Execute an IPMI power command.

### Options

IPMI power command.

#### Value

- `on`— Power up a C Series Controller.
- `off`— Power down a C Series Controller. This command does not initiate a clean shutdown of the operating system prior to powering down the system.
- `soft-off`— Power down a C Series Controller softly. This command initiates a soft shutdown of the operating system prior to powering down the system.
- `reset`— Perform a hard reset on a C Series Controller.
- `cycle`— Power off and then power on a C Series Controller.

### Required Privilege Level

maintenance

# request network discovery

## Syntax

`request network discovery network` *`network`* `<community` *`community`*`>`

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Discover all manageable network elements in an IP subnet. The devices must be online and respond to SNMP queries.

## Options

`network` *`network`*— Address of the network to discover

**Value**— Address in dotted decimal notation

- Individual host—#.#.#.#
- Complete network—#.#.#.#/##

`community` *`community`*—(Optional) Name of SNMP community

**Value**— SNMP community name
**Default**—public

## Required Privilege Level

network

# request security enroll

## Syntax

```
request security enroll <subject subject> <password password> url url ca-identifier
ca-identifier identifier identifier
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Request that the certificate authority (CA) automatically sign the certificate request for the specified subject and challenge password and enroll the certificate through the Simple Certificate Enrollment Protocol (SCEP). Use the `request security get-ca-certificate` command to generate the certificate request.

## Options

`subject` *`subject`*—(Optional) Name (as defined in the X.509 standard for public key infrastructure) used in the certificate name field. If you do not specify a value for `subject`, the SRC software uses the unqualified hostname of the system in the format cn=*`hostname`*. You can specify one subject for a certificate.

**Value**— Distinguished name in the format: cn=*`name`*.

Example—`cn=src1,ou=pop,o=Juniper,l=kanata,st=ontario,c=Canada`

`password` *`password`*—(Optional) Password on the CA for the specified subject. If you do not enter a password, the system prompts you for one.

**Value**— *`password`*

`url` *`url`*— URL of certificate authority (which is the SCEP server).

**Value**— *`URL`*

`ca-identifier` *`ca-identifier`*— Identifier that designates the certificate authority. Use the value provided by the CA.

**Value**— *`CA identifier`*

`identifier` *`identifier`*— Local name of a digital certificate.

**Value**— *`Certificate name`*

## Required Privilege Level

security

# request security generate-certificate-request

## Syntax

```
request security generate-certificate-request <subject subject> <password password>
<file-name file-name> <encoding (binary | pem) >
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Create a self-signed certificate and a certificate signing request. You send the certificate signing request file to a certificate authority (CA) for signing. Use the `request security import-certificate` command to import the issued certificate.

## Options

`subject` *`subject`*—(Optional) Name (as defined in the X.509 standard for public key infrastructure) used in the certificate name field. If you do not specify a value for `subject`, the SRC software uses the unqualified hostname of the system in the format cn=*`hostname`*. You can specify one subject for a certificate.

**Value**— Distinguished name in the format: cn=*`name`*.

Example—`cn=src1,ou=pop,o=Juniper,l=kanata,st=ontario,c=Canada`

`password` *`password`*—(Optional) Password on the CA for the specified subject. If you do not enter a password, the system prompts you for one.

**Value**— *`password`*

`file-name` *`file-name`*—(Optional) Name of certificate signing request file. This file is stored in the `/tmp` directory with the file-extension `.csr`.

**Value**— *`filename`*
**Default**—certreq

`encoding (binary | pem)` —(Optional) Type of encoding used by the certificate signing request.

**Value**

- `binary`— Binary encoding
- `pem`— Privacy enhanced mail encoding

**Default**—pem

## Required Privilege Level

security

# request security generate-self-signed-certificate

## Syntax

```
request security generate-self-signed-certificate <subject subject> identifier
identifier
```

## Release Information

Command introduced in SRC Release 4.7.0

## Description

Create and import a self-signed certificate

## Options

`subject` *`subject`*—(Optional) Name (as defined in the X.509 standard for public key infrastructure) used in the certificate name field. If you do not specify a value for `subject`, the SRC software uses the unqualified hostname of the system in the format cn=*`hostname`*. You can specify one subject for a certificate.

**Value**— Distinguished name in the format: cn=*`name`*.

Example—`cn=src1,ou=pop,o=Juniper,l=kanata,st=ontario,c=Canada`

`identifier` *`identifier`*— Name of a local digital certificate.

**Value**— *`Certificate name`*

## Required Privilege Level

security

# request security get-ca-certificate

## Syntax

`request security get-ca-certificate url` *`url`* `ca-identifier` *`ca-identifier`*

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Request a certificate authority (CA) certificate through the Simple Certificate Enrollment Protocol (SCEP). After you request the certificate, use the `request security enroll` command to request digital certificates from this CA.

## Options

`url` *`url`*— URL of certificate authority (which is the SCEP server).

**Value**— *`URL`*

`ca-identifier` *`ca-identifier`*— Identifier that designates the certificate authority. The identifier is not the name of the certificate authority.

**Value**— *`Identifier`*

## Required Privilege Level

security

# request security import-certificate

## Syntax

```
request security import-certificate file-name file-name identifier identifier
<trusted>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Import a digital certificate from a file. Run the `request security generate-certificate-request` command first to create a certificate signing request that you manually submit to the CA for signing.

## Options

`file-name` *`file-name`*— Name of the certificate file.

**Value**— *`filename`*

`identifier` *`identifier`*— Name of a local digital certificate.

**Value**— *`Certificate name`*

`trusted`—(Optional) Trusted certificates are used by Certificate Authorities to sign certificates.

## Required Privilege Level

security

# request support information

### Syntax

```
request support information <days> < (acp | activity | agent | cli | appsvr | diameter
| dsa | extsubmon | ims | jdb | licSvr | nic | redir | sae | sic | webadm | vta) >
```

### Release Information

Command introduced in SRC Release 3.1.0

### Description

Collects information about components.

### Options

*days*—(Optional) Range of days for which information is collected. Files modified before this range are ignored.

**Value**—Integer in the range 1–36500
**Default**—7

(Optional) Components from which diagnostic information will be collected.

**Value**

- `acp`— Collects information from SRC ACP
- `activity`— Collects information from Activity Monitor
- `agent`— Collects information from the SNMP Agent
- `cli`— Collects information from the CLI
- `appsvr`— Collects information from the Application Server
- `diameter`— Collects information from Diameter application
- `dsa`— Collects information from Dynamic Service Activator
- `extsubmon`— Collects information from External Subscriber Monitor
- `ims`— Collects information from IP Multimedia Subsystem (IMS)
- `jdb`— Collects information from Juniper Networks Database
- `licSvr`— Collects information from the license server
- `nic`— Collects information from the Network Information Collector
- (NIC)
  `redir`— Collects information from the Redirect Server
- `sae`— Collects information from the SAE
- `sic`— Collects information from the SIC
- `webadm`— Collects information from the C-Web interface
- `vta`— Collects information from the VTA
-

## Required Privilege Level

maintenance

# request system delete

## Syntax

```
request system delete
```

## Release Information

Command introduced in SRC Release 4.10.0

## Description

Delete the snapshot root file system and var file system.

## Required Privilege Level

maintenance

# request system generate-ssh-key

### Syntax

`request system generate-ssh-key ssh-key-name` *`ssh-key-name`*

### Release Information

Command introduced in SRC Release 4.6.0

### Description

Generates a public and private key file in /opt/UMC/cli/ssh_keys/ location

### Options

`ssh-key-name` *`ssh-key-name`*— SSH key file creation name

**Value**—Text

### Required Privilege Level

maintenance

# request system halt

## Syntax

```
request system halt <force>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Stop system processes and halt the operating system.

## Alias

poweroff

## Options

`force`—(Optional) Stop the system without first performing a shutdown.

## Required Privilege Level

maintenance

# request system install

### Syntax

`request system install url` *`url`* `package` *`package`*

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Install a specified SRC component.

### Options

`url` *`url`*— URL of an SRC installable image. The URL can be one of the following:

- usb:—Local USB disk
- ftp://*host*/*path*—Path on an FTP site or on the local system

**Value**— URL

`package` *`package`*— Name of the SRC package to install.

**Value**— Package name

### Required Privilege Level

maintenance

# request system prepare-partitions

## Syntax

```
request system prepare-partitions
```

## Description

If you upgrade the system software to SRC Release 3.2.0 or later from earlier releases, you need to change the size of the disk partitions to make room for additional components and the Juniper Networks database. This command only needs to be run once.

## Required Privilege Level

No specific privilege required.

# request system reboot

## Syntax

```
request system reboot <force>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Shut down then restart the C Series Controller.

## Options

`force`—(Optional) Restart the C Series Controller without first performing a system shutdown.

## Required Privilege Level

maintenance

# request system remove-ssh-key

## Syntax

`request system remove-ssh-key` *`ssh-key-name`*

## Release Information

Command introduced in SRC Release 4.6.0

## Description

Removes public and private key files in /opt/UMC/cli/ssh_keys/ location

## Options

*`ssh-key-name`*— SSH key file name

**Value**—Text

## Required Privilege Level

maintenance

# request system restore

### Syntax

```
request system restore
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Restore the root file system from a previously taken snapshot.

**Note:** The system will reboot twice while the snapshot is being restored.

### Required Privilege Level

maintenance

# request system snapshot

## Syntax

```
request system snapshot <verbose>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Create a backup copy of the root file system.

After you issue the command, you cannot return to the previous version of the software because the running and backup copies of the software are identical.

## Options

`verbose`—(Optional) Display detailed messages during the backup process.

## Required Privilege Level

maintenance

# request system uninstall

## Syntax

`request system uninstall package` *`package`*

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Remove an SRC package that is installed on the system.

## Options

`package` *`package`*— Name of the SRC package to remove.

**Value**— Package name

## Required Privilege Level

maintenance

# request system upgrade

## Syntax

`request system upgrade url` *`url`* `<no-reboot>`

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Upgrade the SRC software.

## Options

`url` *`url`*— URL of an SRC installable image. The URL can be one of the following:

- usb:—Local USB disk
- ftp://*host*/*path*—Path on an FTP site or on the local system

**Value**— URL

`no-reboot`—(Optional) Do not reboot after upgrade

## Required Privilege Level

maintenance

# restart

### Syntax

```
restart component component < (gracefully | immediately | soft) >
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Restart an SRC component that is running on the system.

### Options

`component` *`component`*— Name of SRC component to restart.

**Value**— Name of component

(Optional) Method to use to restart component.

**Value**

- `gracefully`— Shutdown the component, then start it again.
- `immediately`— Send a signal kill (SIGKILL) signal to immediately stop the component, then start it again.
- `soft`— Send a signal hangup (SIGHUP) signal to the process for the component to restart the component.

**Default**—gracefully

### Required Privilege Level

reset

# set cli complete-on-space

## Syntax

```
set cli complete-on-space (on | off)
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Set the CLI to complete a partial command entry when you type a space. This command enables command completion for the current user session.

To enable command completion for all user sessions for a specified user, use the **system login user** statement.

## Options

Command completion

### Value

- `on`— Turn on command completion to allow a space to be used for command completion.
- `off`— Turn off command completion; a space after a partial command name does not complete the command.

## Required Privilege Level

No specific privilege required.

# set cli directory

### Syntax

`set cli directory` *`directory`*

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Set the path of the working directory.

### Options

*`directory`*— Pathname of working directory.

**Value**— Directory path

### Required Privilege Level

No specific privilege required.

# set cli language

## Syntax

```
set cli language <language>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Set the language and encoding appropriate to your terminal environment.

## Options

*language*—(Optional) Language and encoding.

**Value**— Language and encoding in the format 2-character language code (lower case_2-character country code (upper case). encoding. For example, en_US.UTF8.
**Default**—en_US.UTF8

## Required Privilege Level

No specific privilege required.

# set cli level

### Syntax

```
set cli level (basic | normal | advanced | expert)
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Set the access level for the CLI commands. The access level controls the number of commands and configuration statements accessible to the user.

### Options

Editing level

**Value**

- `basic`— Minimal set of configuration statements and commands. Only the statements that must be configured are visible.
- `normal`— Normal set of configuration statements and commands. The common and basic statements are visible.
- `advanced`— All configuration statements and commands, including the common and basic ones, are visible.
- `expert`— All configuration statements, including common, basic, and internal statements and commands used for debugging are visible.

### Required Privilege Level

No specific privilege required.

# set cli password

## Syntax

```
set cli password
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Change the current password that is used to access the CLI.

## Required Privilege Level

No specific privilege required.

# set cli prompt

### Syntax

`set cli prompt` *`cli-prompt`*

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Set the prompt that is displayed within the CLI.

### Options

*`cli-prompt`*— Characters that appear at the CLI prompt.

Specify the characters \> to have > appear at the end of the prompt in operational mode and # at the end of the prompt in configuration mode.

**Value**— Text to appear at prompt

### Required Privilege Level

No specific privilege required.

# set cli screen-length

## Syntax

`set cli screen-length` *`length`*

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Set the number of lines to appear on the screen.

## Options

*`length`*— Number of lines to appear on a CLI screen. If the terminal supports reporting the screen size the screen size reported by the terminal takes precedence.

**Value**—Integer in the range 5–100000

## Required Privilege Level

No specific privilege required.

# set cli screen-width

## Syntax

`set cli screen-width` *`width`*

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Set the screen width in number of columns to appear on the screen.

## Options

*`width`*— Number of columns to appear on a CLI screen. If the terminal supports reporting the screen size the screen size reported by the terminal takes precedence.

**Value**—Integer in the range 0–100000

## Required Privilege Level

No specific privilege required.

# set cli terminal

## Syntax

```
set cli terminal (ansi | vt100 | xterm | dumb)
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Set the terminal type.

## Options

Terminal type

**Value**

- `ansi`—ANSI-compatible terminal
- `vt100`—VT100-compatible terminal
- `xterm`—Xterm window
- `dumb`—Dumb terminal

## Required Privilege Level

No specific privilege required.

# set date

### Syntax

`set date` *`time`*

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Set the system date and time.

### Options

*`time`*— System date and time.

**Value**— System date and time in the format YYYYMMDDhhmm.ss in which:

- YYYY—Year. Contains 4 digits.
- mm—Month. A number 1–12.
- DD—Day. A number 1–31
- mm—Minute. A number 0–59.
- ss—Second. A number 0–59.

For example, to enter the time 12:15 and 30 seconds on October 30, 2006 enter 200610301215.30.

### Required Privilege Level

maintenance

# set date ntp

## Syntax

`set date ntp` *`servers`*

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Use NTP to set the date and time for the C Series Controller.

**Note:** For normal operation, we strongly recommended that you configure NTP to maintain local time. For additional information, see the **system ntp** configuration statement.

If NTP is enabled, it is not possible to set the time manually.

## Options

*`servers`*— List of the IP addresses of NTP servers to use.

**Value**— IP address(es)

## Required Privilege Level

maintenance

# show cli

### Syntax

```
show cli
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Display properties that have been set to control the CLI environment.

### Required Privilege Level

No specific privilege required.

# show cli authorization

## Syntax

```
show cli authorization
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Identify the user logged in to the CLI session, and display the user's privilege level, the user's permissions to run specified operational and configuration commands, and the user's authorization to run commands.

## Required Privilege Level

No specific privilege required.

# show cli directory

### Syntax

```
show cli directory
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Display the current working directory.

### Required Privilege Level

No specific privilege required.

# show cli level

## Syntax

```
show cli level
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display the current access level.

## Required Privilege Level

No specific privilege required.

# show component

## Syntax

```
show component
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display information and status for SRC components installed.

## Required Privilege Level

maintenance

# show configuration

## Syntax

```
show configuration <object>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display information about the SRC configuration.

## Options

*object*—(Optional) Object for which to display information.

**Value**—Path of a configuration object

## Required Privilege Level

config-view

# show date

### Syntax

```
show date
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Display the time and date set on the system.

### Alias

time

### Required Privilege Level

No specific privilege required.

# show disk status

## Syntax

```
show disk status <brief>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display status information.

## Options

`brief`—(Optional) Display summary information.

## Required Privilege Level

view

# show interfaces

### Syntax

```
show interfaces <interface-name>
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Display information about interfaces configured on a C Series Controller, including but not limited to interface address, information about packets sent, and information about packets received.

### Options

*`interface-name`*—(Optional) Name of an interface

**Value**— Interface name; for example eth0. If you do not specify an interface name, the command displays information for all interfaces.
**Default**— No value

### Required Privilege Level

network

# show ipmi chassis

## Syntax

```
show ipmi chassis
```

## Release Information

Command introduced in SRC Release 3.0.0

## Description

Display IPMI chassis information.

## Required Privilege Level

view

# show ipmi power

## Syntax

```
show ipmi power
```

## Release Information

Command introduced in SRC Release 3.0.0

## Description

Display the power status (on/off) of a specified C Series Controller through IPMI.

## Required Privilege Level

view

# show ipmi sdr

## Syntax

```
show ipmi sdr
```

## Release Information

Command introduced in SRC Release 3.0.0

## Description

Display IPMI Sensor Data Repository entries and readings information.

## Required Privilege Level

view

# show iptables

### Syntax

```
show iptables < (nat | filter | mangle) > <reset-counters>
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Display information about the iptables Linux tool.

### Options

(Optional) Type of information to display.

**Value**

- `nat`— Display information for the nat table for the iptables tool. The nat table provides rules for rewriting packet addresses.
- `filter`— Display information for the filter table for the iptables tool. The filter table provides rules for defining packet filters.
- `mangle`— Display information for the mangle table for the iptables tool. The mangle table provides rules for adjusting packet options, such as quality of service.

`reset-counters`—(Optional) Reset counters of the items in output.

### Required Privilege Level

view

# show ntp associations

## Syntax

```
show ntp associations <no-resolve>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display NTP peers and their state.

## Options

`no-resolve`—(Optional) Suppress symbolic addressing.

## Required Privilege Level

view

# show ntp statistics

### Syntax

```
show ntp statistics <no-resolve>
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Display information about NTP.

### Options

`no-resolve`—(Optional) Suppress symbolic addressing.

### Required Privilege Level

view

# show ntp status

## Syntax

```
show ntp status <no-resolve>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display the values of internal variables returned by NTP peers.

## Options

`no-resolve`—(Optional) Suppress symbolic addressing.

## Required Privilege Level

view

# show route

### Syntax

```
show route <no-resolve> <detail>
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Display information from the routing table.

### Options

`no-resolve`—(Optional) Do not display symbolic addresses in command output.

`detail`—(Optional) Display detailed output.

### Required Privilege Level

network

# show security certificate

## Syntax

```
show security certificate <trusted>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display information about the certificates stored on the local system.

## Options

`trusted`—(Optional) Display information about certificate authority (CA) certificates.

## Required Privilege Level

security

# show system boot-messages

## Syntax

```
show system boot-messages
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display system messages generated during system startup.

## Required Privilege Level

view

# show system generated-keys

## Syntax

`show system generated-keys` *`ssh-key-name`*

## Release Information

Command introduced in SRC Release 4.6.0

## Description

Show CLI generated key information

## Options

*`ssh-key-name`*— SSH key file name

**Value**—Text

## Required Privilege Level

view

# show system information

### Syntax

```
show system information
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Display information about the system. The command output includes the system hostname, information about the system hardware, the version of the SRC software installed on the system.

### Required Privilege Level

No specific privilege required.

# show system snapshot

## Syntax

```
show system snapshot
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Show information of existing system snapshot

## Required Privilege Level

view

# show system users

### Syntax

```
show system users <brief> <no-from>
```

### Release Information

Command introduced in SRC Release 1.1.0

### Description

Show users who are currently logged in

### Options

`brief`—(Optional) Use the short format

`no-from`—(Optional) Do not show the FROM field

### Required Privilege Level

view

# ssh

## Syntax

`ssh host *host* < (v1 | v2) >`

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Open an SSH session to another host.

## Options

`host *host*`— Hostname or IP address of the remote host. You can specify a username by using the format user@host for host. If you do not specify a username, the command uses the username of the current user.

**Value**— Hostname, IP address, user@hostname, or user@IP address

(Optional) SSH version.

**Value**

- `v1`— Use SSH version 1.
- `v2`— Use SSH version 2.

**Default**— No value

## Required Privilege Level

network

# start shell

### Syntax

```
start shell (csh | sh | bash)
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Set type of shell to start.

### Options

Type of shell to start.

**Value**

- `csh`— C shell
- `sh`— Bourne-style shell
- `bash`— GNU Bourne shell

**Default**—csh

### Required Privilege Level

shell maintenance

# telnet

## Syntax

`telnet host <port port>`

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Open a Telnet session to another host.

## Options

*host*— Hostname or address of the remote host.

**Value**— Hostname or IP address

port *port*—(Optional) Port number or service name on the remote host.

**Value**— Port number

## Required Privilege Level

network

# traceroute

### Syntax

```
traceroute <gateway gateway> <interface interface> <tos tos> <ttl ttl> <wait wait>
<no-resolve> <bypass-routing> <source source> host
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Display the route from the local host, interface on the local host, or IP address on the local host to a remote host.

### Options

`gateway` *`gateway`*—(Optional) Address of gateway though which route passes.

**Value**— IP address

`interface` *`interface`*—(Optional) Interface from which to send packets to trace a route. The IP address of this interface is the source IP address in packets sent to trace the route. Typically, you specify either the `interface` or `source` option to obtain the IP address for packets sent on a multi-homed host (a host that has more than one IP address).

**Note:** Only users with root permissions can execute this command with this option.

**Value**— Interface name; for example, eth0.

`tos` *`tos`*—(Optional) Value of IP type-of-service byte

**Value**—Integer in the range 0–255

`ttl` *`ttl`*—(Optional) Maximum number of hops between the source and the destination

**Value**— Number of hops

`wait` *`wait`*—(Optional) Number of seconds to wait for a response.

**Value**—Integer in the range 0–600 s

`no-resolve`—(Optional) Do not display symbolic addresses in command output.

`bypass-routing`—(Optional) Do not use the entries in the routing table when traceroute request is sent; use the interface specified by the `interface` option.

`source` *`source`*—(Optional) IP address from which to send packets to trace a route. The IP address is included in packets sent to trace the route. Typically, you specify either the `interface` or `source` option to obtain the IP address for packets sent on a multi-homed host (a host that has more than one IP address).

**Value**— IP address (not a hostname). If you specify an IP address that is not assigned to a system, you receive an error message to the effect that a traceroute request was not sent.

*`host`*— IP address or hostname of remote host.

**Value**— IP address or hostname

## Required Privilege Level

network

# Juniper Networks Database

The following table summarizes the SRC command-line interface (SRC CLI) for the Juniper Networks Database. Configuration statements and operational commands are listed in alphabetical order.

| Juniper Networks Database |
| --- |
| Configuration Statements |
| system ldap server |
| system ldap server community |
| system ldap server security |
| Operational Commands |
| request system ldap change-admin-password |
| request system ldap change-component-password |
| request system ldap community force-update |
| request system ldap community initialize |
| request system ldap data export |
| request system ldap data import |
| request system ldap factory-default |
| request system ldap load |
| request system ldap security export-certificate |
| request system ldap security replace-expired-certificate |
| show system ldap community |
| show system ldap statistics |

# system ldap server

## Syntax

```
system ldap server {
     (stand-alone);
     maximum-entries-returned maximum-entries-returned;
}
```

## Hierarchy Level

```
[edit system ldap server]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Enable the Juniper Networks database to run in standalone mode. This database contains the SRC configuration information.

Typically, you run the database in standalone mode only in testing environments. If you want to run the Juniper Networks database in a community (or group) of databases, use the `system ldap server community` statement.

Enable the Juniper Networks database in either standalone or community mode; a Juniper Networks database can run either standalone or in a community, but not both. If you do not enable the database, it will not run.

## Options

Database mode for the Juniper Networks database.

**Value**

- `stand-alone`— Standalone mode for the Juniper Networks database.

**Editing Level**—Basic

`maximum-entries-returned` *`maximum-entries-returned`*—(Optional) If this limit is reached, the server returns any entries it has located that match the search request, as well as an exceeded size limit error. When no limit is set, the server will return every matching entry to the client regardless of the number found. To set a no limit value whereby Directory Server will wait indefinitely for the search to complete, specify a value of -1 for this attribute.

**Value**—Integer in the range -1–2147483647

**Default**— 2000
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# system ldap server community

## Syntax

```
system ldap server community {
     role (primary | secondary);
     primary-neighbors [primary-neighbors...];
     primary-connection-type (clear | secure);
     secondary-neighbors [secondary-neighbors...];
     secondary-connection-type (clear | secure);
}
```

## Hierarchy Level

`[edit system ldap server community]`

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Enable the Juniper Networks database to operate as part of a community (group) of other Juniper Networks databases. The Juniper Networks database contains the SRC configuration information.

If you want to run the Juniper Networks database standalone, use the `stand-alone` option at the `system ldap server` hierarchy level.

Enable the Juniper Networks database in either standalone or community mode; a Juniper Networks database can run either standalone or in a community, but not both. If you do not enable the database, it will not run.

## Options

`role (primary | secondary)`— Role of the database. The role determines the read and write access to the database.

### Value

- `primary`— A database that provides read and write access to client applications. It replicates its data and distributes changes to any Juniper Networks databases configured as neighbors.
- `secondary`— A database that provides read access to client applications. If client applications try to write data to this database, the database refers the client to a primary database.

**Default**— No value
**Editing Level**—Basic

`primary-neighbors [primary-neighbors...]`—(Optional) A database that propagates changes that it receives to other Juniper Networks databases configured as neighbors. A primary neighbor must be assigned a primary role.

**Value**— Primary neighbor identified by one of the following:

- IP address; for example, 192.2.4.0
- Hostname that the C Series Controller can resolve through the domain name system; for example, myhostname1
- Fully qualified hostname; for example, myhostname1.mycompany.com

**Default**— No value
**Editing Level**—Basic

`primary-connection-type (clear | secure)`—(Optional) Connection type to primary neighbors. The connection type determines if replication is clear or secure.

**Value**

- `clear`— The data replication amongst all primary neigbors is done over LDAP.
- `secure`— The data replication amongst all primary neigbors is done over LDAPS.

**Default**— No value
**Editing Level**—Basic

`secondary-neighbors [secondary-neighbors...]`—(Optional) A database that only receives database changes. A secondary neighbor must be assigned a secondary role.

**Value**— Secondary neighbor identified by one of the following:

- IP address; for example, 192.2.4.0
- Hostname that the C Series Controller can resolve through the domain name system; for example, myhostname1
- Fully qualified hostname; for example, myhostname1.mycompany.com

**Default**— No value
**Editing Level**—Basic

`secondary-connection-type (clear | secure)`—(Optional) Connection type to secondary neighbors. The connection type determines if replication is clear or secure.

**Value**

- `clear`— The data replication amongst all secondary neigbors is done over LDAP.
- `secure`— The data replication amongst all secondary neigbors is done over LDAPS.

**Default**— No value
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# system ldap server security

### Syntax

```
system ldap server security {
     (enable | strict);
}
```

### Hierarchy Level

```
[edit system ldap server security]
```

### Release Information

Statement introduced in SRC Release 2.0.0

### Description

You can secure connections to a Juniper Networks database by:

- Allowing only Secure Lightweight Directory Access Protocol (LDAPS) connections from remote systems.
- Allowing LDAP or LDAPS connections. In this case, remote SRC components can connect through LDAP or LDAPS.

To allows access to the Juniper Networks database only through LDAP, use the `delete security` command at the `system ldap server` hierarchy level.

### Options

Secure connections to the Juniper Networks database.

**Value**

- `enable`— Use LDAP and LDAPS connections to Juniper Networks database.
- `strict`— Use LDAPS to secure remote connections to the Juniper Networks database. Local SRC components have LDAP access to the database.

**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Basic

# request system ldap change-admin-password

## Syntax

`request system ldap change-admin-password new-password` *`new-password`*

## Release Information

Command introduced in SRC Release 1.0.1

## Description

Change the administrative password for the Juniper Networks database.

## Options

`new-password` *`new-password`*— New administrative password for the Juniper Networks database.

**Value**— *password*

## Required Privilege Level

maintenance

# request system ldap change-component-password

### Syntax

```
request system ldap change-component-password (cli | licenseReader | licenseWriter |
nic | sae | conf) new-password new-password
```

### Release Information

Command introduced in SRC Release 2.0.0

### Description

Change the password that a specified SRC component uses to communicate with the Juniper Networks database.

### Options

Name of an SRC component.

**Value**

- `cli`— Password that the SRC CLI uses to communicate with the Juniper Networks database.
- `licenseReader`— Password that the SRC license server uses to obtain licensing information from the Juniper Networks database.
- `licenseWriter`— Password that the SRC license server uses to provide licensing information to the Juniper Networks database.
- `nic`— Password that the Network Information Collector (NIC) uses to communicate with the Juniper Networks database.
- `sae`— Password that the SAE uses to communicate with the Juniper Networks database for changes to the following repositories in the database: Users, Services, Policies, and Networks.
- `conf`— Password used to communicate configuration information with the Juniper Networks database.

`new-password` *`new-password`*— New password SRC component

**Value**— *password*

### Required Privilege Level

maintenance

# request system ldap community force-update

## Syntax

`request system ldap community force-update neighbor` *`neighbor`*

## Release Information

Command introduced in SRC Release 2.0.0

## Description

For a specified neighbor, update data that has changed since the neighbor database was last active.

## Options

`neighbor` *`neighbor`*— Name of neighbor to be updated.

**Value**— Neighbor name

## Required Privilege Level

maintenance

# request system ldap community initialize

## Syntax

```
request system ldap community initialize neighbor neighbor
```

## Release Information

Command introduced in SRC Release 2.0.0

## Description

Initialize data for a specified neighbor in a community of Juniper Networks databases.

## Options

`neighbor` *`neighbor`*— Name of the neighbor to initialize.

**Value**— Neighbor name

## Required Privilege Level

maintenance

# request system ldap data export

## Syntax

`request system ldap data export file-name` *`file-name`*

## Release Information

Command introduced in SRC Release 3.1.0

## Description

Export LDAP database.

## Options

`file-name` *`file-name`*— Name of the database file

**Value**—Text

## Required Privilege Level

maintenance

# request system ldap data import

## Syntax

`request system ldap data import file-name` *`file-name`*

## Release Information

Command introduced in SRC Release 3.1.0

## Description

Import LDAP database.

## Options

`file-name` *`file-name`*— Name of the database file

**Value**—Text

## Required Privilege Level

maintenance

# request system ldap factory-default

## Syntax

```
request system ldap factory-default
```

## Release Information

Command introduced in SRC Release 4.1.0

## Description

Creates the factory-default SRC instance for the Juniper Networks database. The current data will be lost!

## Required Privilege Level

maintenance

# request system ldap load

### Syntax

```
request system ldap load (equipment-registration | isp-service-portal | enterprise-
portal | snmp-agent | dsa-configuration | hostchecker-configuration | idp-
configuration | tm-configuration | vta-configuration | 3gpp-gw-configuration | 3gpp-
gy-configuration) < (replace | merge) >
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Load sample data supplied with the SRC software.

### Options

Type of data to be loaded.

#### Value

- `equipment-registration`— Sample data for the sample residential portal to demonstrate an application that provides an association between a subscriber and the equipment being used to make the DHCP connection.
- `isp-service-portal`— Sample data for the sample residential portal to demonstrate an application that provides a means for subscribers to directly log in to a subscriber session for their ISP.
- `enterprise-portal`— Sample data for the Enterprise Manager Portal and the sample enterprise service portal.
- `snmp-agent`— Sample data for SNMP traps for SNMP agent.
- `dsa-configuration`— Sample data for the Dynamic Service Activator.
- `hostchecker-configuration`— Sample data Instant Virtual Extremity (IVE) Host Checker integration application.
- `idp-configuration`— Sample data for the Intrusion Detection and Prevention (IDP) integration application.
- `tm-configuration`— Sample data for the traffic mirroring application.
- `vta-configuration`— Sample data for the SRC Volume Tracking Application.
- `3gpp-gw-configuration`— Sample data for the SRC 3GPP-GW Application.
- `3gpp-gy-configuration`— Sample data for the SRC 3GPP-GY Application.

(Optional) Replace all existing entries or only new entries. If it is first time to load one

specific ldap sample data, the choice of replace or merge would make no difference.

**Value**

- `replace`— Replace all existing entries or adding new entries from a given ldif file
- `merge`— Replace only deleted entries or adding new entries from a given ldif file

**Default**— merge

## Required Privilege Level

maintenance

# request system ldap security export-certificate

## Syntax

`request system ldap security export-certificate file-name` *`file-name`*

## Release Information

Command introduced in SRC Release 3.0.0

## Description

Export LDAP server CA certificate.

## Options

`file-name` *`file-name`*— Name of the certificate file

**Value**—Text

## Required Privilege Level

maintenance

# request system ldap security replace-expired-certificate

## Syntax

```
request system ldap security replace-expired-certificate
```

## Release Information

Command introduced in SRC Release 4.3.0

## Description

Removes expired JDB certificate and generates a new JDB certificate.

## Required Privilege Level

maintenance

# show system ldap community

## Syntax

```
show system ldap community
```

## Release Information

Command introduced in SRC Release 2.0.0

## Description

Display statistics for a community of Juniper Networks databases.

## Required Privilege Level

view

# show system ldap statistics

## Syntax

```
show system ldap statistics
```

## Release Information

Command introduced in SRC Release 2.0.0

## Description

Display local operation statistics for the Juniper Networks database.

## Required Privilege Level

view

# Service Activation Engine (SAE)

The following table summarizes the SRC command-line interface (SRC CLI) for the Service Activation Engine (SAE). Configuration statements and operational commands are listed in alphabetical order.

| Service Activation Engine (SAE) |
| --- |
| Configuration Statements |
| shared auth-cache cached-dhcp-profile |
| shared classification-script dhcp classifier |
| shared classification-script dhcp classifier name dhcp-classifier rule |
| shared classification-script dhcp classifier name dhcp-classifier rule name condition |
| shared classification-script dhcp classifier name dhcp-classifier rule name script |
| shared classification-script interface classifier |
| shared classification-script interface classifier name interface-classifier rule |
| shared classification-script interface classifier name interface-classifier rule name condition |
| shared classification-script interface classifier name interface-classifier rule name script |
| shared classification-script subscriber classifier |
| shared classification-script subscriber classifier name subscriber-classifier rule |
| shared classification-script subscriber classifier name subscriber-classifier rule name condition |
| shared classification-script subscriber classifier name subscriber-classifier rule name script |
| shared network application-manager-group |
| shared network device |
| shared network device name charging-server-info |
| shared network device name interface-classifier rule |
| shared network device name interface-classifier rule name condition |
| shared network device name interface-classifier rule name script |
| shared network device name pool-retrieval |
| shared network device name virtual-router |
| shared network policy-decision-point |
| shared sae configuration |
| shared sae configuration aggregate-services |
| shared sae configuration driver |

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|---|
| shared sae configuration driver aaa |
| shared sae configuration driver aaa session-store |
| shared sae configuration driver junos-dmi |
| shared sae configuration driver junos-dmi session-store |
| shared sae configuration driver junos-gx |
| shared sae configuration driver junos-gx charging-server-info |
| shared sae configuration driver junos-gx session-store |
| shared sae configuration driver junos-ise |
| shared sae configuration driver junos-ise pool-retrieval |
| shared sae configuration driver junos-ise session-store |
| shared sae configuration driver junos |
| shared sae configuration driver junos configuration-checking |
| shared sae configuration driver junos lsp-tracking |
| shared sae configuration driver junos security |
| shared sae configuration driver junos session-store |
| shared sae configuration driver junose |
| shared sae configuration driver junose session-store |
| shared sae configuration driver pcmm |
| shared sae configuration driver pcmm cmts-specific-rks-plug-ins |
| shared sae configuration driver pcmm session-store |
| shared sae configuration driver scripts |
| shared sae configuration driver session-store |
| shared sae configuration driver simulated |
| shared sae configuration driver simulated name session-store |
| shared sae configuration driver snmp |
| shared sae configuration driver third-party |
| shared sae configuration driver third-party session-store |
| shared sae configuration dynamic-radius-server |
| shared sae configuration external-interface-features |
| shared sae configuration external-interface-features name CommunityManager |
| shared sae configuration external-interface-features name EventAPI |

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|---|
| shared sae configuration external-interface-features name JavaScriptProcessor |
| shared sae configuration external-interface-features name PythonScriptProcessor |
| shared sae configuration external-interface-features name SAEAccess |
| shared sae configuration external-interface-features name SAEFeature |
| shared sae configuration external-interface-features name SAEFeature properties |
| shared sae configuration file-accounting-template |
| shared sae configuration file-accounting-template name attributes |
| shared sae configuration global-radius-udp-port |
| shared sae configuration idle-timeout |
| shared sae configuration interim-accounting |
| shared sae configuration interim-session-job-manager |
| shared sae configuration ldap |
| shared sae configuration ldap directory-eventing |
| shared sae configuration ldap persistent-login-cache |
| shared sae configuration ldap policy-data |
| shared sae configuration ldap service-data |
| shared sae configuration ldap subscriber-data |
| shared sae configuration license-manager client |
| shared sae configuration license-manager directory-access |
| shared sae configuration logger |
| shared sae configuration logger name file |
| shared sae configuration logger name syslog |
| shared sae configuration login-registration |
| shared sae configuration nic-proxy-configuration |
| shared sae configuration nic-proxy-configuration name cache |
| shared sae configuration nic-proxy-configuration name nic-host-selection |
| shared sae configuration nic-proxy-configuration name nic-host-selection blacklisting |
| shared sae configuration nic-proxy-configuration name resolution |
| shared sae configuration nic-proxy-configuration name test-nic-bindings |
| shared sae configuration nic-proxy-configuration name test-nic-bindings key-values |
| shared sae configuration plug-ins |

| |
|---|
| shared sae configuration plug-ins event-publishers |
| shared sae configuration plug-ins event-publishers device-type-authentication |
| shared sae configuration plug-ins manager |
| shared sae configuration plug-ins name |
| shared sae configuration plug-ins name name acp-interface-listener |
| shared sae configuration plug-ins name name custom-radius-accounting |
| shared sae configuration plug-ins name name custom-radius-accounting peer-group |
| shared sae configuration plug-ins name name custom-radius-authentication |
| shared sae configuration plug-ins name name custom-radius-authentication peer-group |
| shared sae configuration plug-ins name name ejb-adaptor |
| shared sae configuration plug-ins name name external |
| shared sae configuration plug-ins name name file-accounting |
| shared sae configuration plug-ins name name flex-radius-accounting |
| shared sae configuration plug-ins name name flex-radius-accounting peer-group |
| shared sae configuration plug-ins name name flex-radius-accounting radius-packet-definition |
| shared sae configuration plug-ins name name flex-radius-accounting radius-packet-definition name attributes-with-type |
| shared sae configuration plug-ins name name flex-radius-accounting radius-packet-definition name attributes-with-type name |
| shared sae configuration plug-ins name name flex-radius-accounting radius-packet-definition name attributes |
| shared sae configuration plug-ins name name flex-radius-accounting radius-packet-definition name vendor-specific-26 |
| shared sae configuration plug-ins name name flex-radius-accounting radius-packet-definition name vendor-specific-26 name attributes |
| shared sae configuration plug-ins name name flex-radius-accounting radius-packet-definition name vendor-specific-26 name type |
| shared sae configuration plug-ins name name flex-radius-accounting radius-packet-definition name vendor-specific-26 name type name attributes |
| shared sae configuration plug-ins name name flex-radius-accounting radius-packet-definition name vendor-specific |
| shared sae configuration plug-ins name name flex-radius-accounting radius-packet-definition name vendor-specific name attributes |
| shared sae configuration plug-ins name name flex-radius-accounting radius-packet-definition name vendor-specific name type |

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| shared sae configuration plug-ins name name flex-radius-accounting radius-packet-definition name vendor-specific name type name attributes |
| shared sae configuration plug-ins name name flex-radius-authentication |
| shared sae configuration plug-ins name name flex-radius-authentication peer-group |
| shared sae configuration plug-ins name name flex-radius-authentication radius-packet-definition |
| shared sae configuration plug-ins name name flex-radius-authentication radius-packet-definition name attributes-with-type |
| shared sae configuration plug-ins name name flex-radius-authentication radius-packet-definition name attributes-with-type name |
| shared sae configuration plug-ins name name flex-radius-authentication radius-packet-definition name attributes |
| shared sae configuration plug-ins name name flex-radius-authentication radius-packet-definition name vendor-specific-26 |
| shared sae configuration plug-ins name name flex-radius-authentication radius-packet-definition name vendor-specific-26 name attributes |
| shared sae configuration plug-ins name name flex-radius-authentication radius-packet-definition name vendor-specific-26 name type |
| shared sae configuration plug-ins name name flex-radius-authentication radius-packet-definition name vendor-specific-26 name type name attributes |
| shared sae configuration plug-ins name name flex-radius-authentication radius-packet-definition name vendor-specific |
| shared sae configuration plug-ins name name flex-radius-authentication radius-packet-definition name vendor-specific name attributes |
| shared sae configuration plug-ins name name flex-radius-authentication radius-packet-definition name vendor-specific name type |
| shared sae configuration plug-ins name name flex-radius-authentication radius-packet-definition name vendor-specific name type name attributes |
| shared sae configuration plug-ins name name interface-subscriber-limit |
| shared sae configuration plug-ins name name internal |
| shared sae configuration plug-ins name name internal properties |
| shared sae configuration plug-ins name name jms-adaptor |
| shared sae configuration plug-ins name name ldap-authentication |
| shared sae configuration plug-ins name name pcmm-rks |
| shared sae configuration plug-ins name name pcmm-rks peer-group |
| shared sae configuration plug-ins name name qos-profile-tracking |
| shared sae configuration plug-ins name name radius-accounting |

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| shared sae configuration plug-ins name name radius-accounting peer-group |
| shared sae configuration plug-ins name name radius-authentication |
| shared sae configuration plug-ins name name radius-authentication peer-group |
| shared sae configuration plug-ins name name schedule-authorization |
| shared sae configuration plug-ins state-synchronization |
| shared sae configuration plug-ins vta-failqueue-size-config |
| shared sae configuration policy-management-configuration |
| shared sae configuration radius-packet-template |
| shared sae configuration radius-packet-template name radius-attributes |
| shared sae configuration radius-packet-template name radius-attributes name attributes-with-type |
| shared sae configuration radius-packet-template name radius-attributes name attributes-with-type name |
| shared sae configuration radius-packet-template name radius-attributes name attributes |
| shared sae configuration radius-packet-template name radius-attributes name vendor-specific-26 |
| shared sae configuration radius-packet-template name radius-attributes name vendor-specific-26 name attributes |
| shared sae configuration radius-packet-template name radius-attributes name vendor-specific-26 name type |
| shared sae configuration radius-packet-template name radius-attributes name vendor-specific-26 name type name attributes |
| shared sae configuration radius-packet-template name radius-attributes name vendor-specific |
| shared sae configuration radius-packet-template name radius-attributes name vendor-specific name attributes |
| shared sae configuration radius-packet-template name radius-attributes name vendor-specific name type |
| shared sae configuration radius-packet-template name radius-attributes name vendor-specific name type name attributes |
| shared sae configuration script-extension |
| shared sae configuration service-activation |
| shared sae configuration service-schedule |
| shared sae configuration session-job-manager |
| shared sae configuration subscriber-sessions |
| shared sae configuration time-based-policies |
| shared sae configuration timeout-session-job-manager |

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|---|
| shared sae dhcp-classifier rule |
| shared sae dhcp-classifier rule name condition |
| shared sae dhcp-classifier rule name script |
| shared sae group |
| shared sae subscriber-classifier rule |
| shared sae subscriber-classifier rule name condition |
| shared sae subscriber-classifier rule name script |
| slot number sae |
| slot number sae initial |
| slot number sae initial directory-connection |
| slot number sae initial directory-eventing |
| slot number sae java-orb object-adapter |
| slot number sae radius |
| Operational Commands |
| clear sae directory-blacklist |
| clear sae registered equipment |
| clear sae registered login |
| monitor sae statistics sessions |
| request sae load configuration |
| request sae load domain-map |
| request sae load interface-classification |
| request sae load services |
| request sae load subscriptions |
| request sae login ip authenticated-dhcp |
| request sae login ip authenticated-interface |
| request sae login ip unauthenticated-dhcp |
| request sae login ip unauthenticated-interface |
| request sae logout dn |
| request sae logout ip |
| request sae logout login-name |
| request sae logout session-id |

| |
|---|
| request sae modify device failover |
| request sae shutdown device |
| request sae update ip-pools |
| request sae update qos-profiles |
| show sae directory-blacklist |
| show sae drivers |
| show sae interfaces |
| show sae licenses |
| show sae number-service-sessions |
| show sae policies |
| show sae registered equipment |
| show sae registered login |
| show sae services |
| show sae sessionstore-stats |
| show sae statistics device |
| show sae statistics device common |
| show sae statistics directory |
| show sae statistics directory connections |
| show sae statistics license client |
| show sae statistics license device |
| show sae statistics license local |
| show sae statistics policy-management |
| show sae statistics process |
| show sae statistics radius |
| show sae statistics radius client |
| show sae statistics sessions |
| show sae subscribers |
| show sae subscribers accounting-user-id |
| show sae subscribers dn |
| show sae subscribers ip |
| show sae subscribers login-name |

| |
|---|
| show sae subscribers service-name |
| show sae subscribers session-id |
| show sae threads |

# shared auth-cache cached-dhcp-profile

## Syntax

```
shared auth-cache cached-dhcp-profile name {
     description description;
     pool-name pool-name;
     ip-address ip-address;
     dhcp-options dhcp-options;
     boot-server-name boot-server-name;
     boot-file-name boot-file-name;
     virtual-router virtual-router;
     local-interface local-interface;
     lease-time lease-time;
     user-name user-name;
     service-bundle service-bundle;
     radius-class radius-class;
}
```

## Hierarchy Level

```
[edit shared auth-cache cached-dhcp-profile]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure a cached DHCP profile.

## Options

`name` *`name`*— Name of a cached DHCP profile.

**Value**— String

`description` *`description`*—(Optional) Description of the DHCP client device.

**Value**— String
**Default**— No value
**Editing Level**—Basic

`pool-name` *`pool-name`*—(Optional) Name of the IP address pool on the JUNOSe router from which a DHCP address is selected.

**Value**— String
**Default**— No value
**Editing Level**—Basic

`ip-address` *`ip-address`*—(Optional) Fixed IP address that is offered to the DHCP client if the client is part of a network in the configured DHCP pool.

**Value**— IP address
**Default**— No value
**Editing Level**—Basic

`dhcp-options` *`dhcp-options`*—(Optional) Defines DHCP options that are used to configure DHCP clients.

**Value**— Define DHCP options in the format: option=value [,value...].

where option is the DHCP option name or number (see the customer documentation for a list of supported DHCP options) and values are entered based on the type of option:

- int32, int16, int8—Decimal or hex prefixed by 0x
- string—Optionally surrounded by double quotes
- ip-address—Dotted decimal
- data-string—Sequence of hex-encoded bytes separated by a : (colon) or a string surrounded by double quotes

Separate multiple options by line breaks.

Value is a string containing one or more options defined as 'name=value'. Multiple options are separated by line breaks.

To include nonstandard options in a DHCP profile, use the name option-*nnn*, where *nnn* is the option number, and the value is of type data-string; that is, either a string surrounded in double quotes, or a sequence of hex-encoded bytes, separated by a colon (:).

**Default**— No value
**Editing Level**—Basic

`boot-server-name` *`boot-server-name`*—(Optional) Name of the server used to boot the DHCP client.

**Value**— String, length < 64
**Default**— No value
**Editing Level**—Basic

`boot-file-name` *`boot-file-name`*—(Optional) Name of a boot file used to boot the DHCP client.

**Value**— String, length < 128
**Default**— No value
**Editing Level**—Basic

`virtual-router` *`virtual-router`*—(Optional) Name of the virtual router that holds the IP address pool.

**Value**— Name of the virtual router in the format vrname@hostname. An * (asterisk) means that the values for the virtual router are ignored when the cached profile is used. Use an * if you do not know the virtual router to which the subscriber will connect.
**Default**— No value
**Editing Level**—Basic

`local-interface` *`local-interface`*—(Optional) Name of the JUNOSe router interface that will receive the DHCP client device's request for an IP address.

**Value**— Name of the virtual router in the format vrname@hostname. An * (asterisk) means that the values for local interface are ignored when the cached profile is used. Use an * if you do not know the interface to which the subscriber will connect or if you want to allow the subscriber to connect through multiple interfaces.
**Default**— No value
**Editing Level**—Basic

`lease-time` *`lease-time`*—(Optional) Length of time the supplied IP address is valid. This parameter is not currently implemented on the JUNOSe router. The DHCP lease time that the SAE sends to the JUNOSe router is ignored.

**Value**— Number of seconds
**Default**— No value
**Editing Level**—Basic

`user-name` *`user-name`*—(Optional) Username of the DHCP subscriber without the domain name.

**Value**— String that specifies the information to the left of the @ character in userName@domainName.
**Default**— No value
**Editing Level**—Basic

`service-bundle` *`service-bundle`*—(Optional) Vendor-specific RADIUS attribute that specifies the SRC service bundle to use.

**Value**— String
**Default**— No value
**Editing Level**—Basic

`radius-class` *`radius-class`*—(Optional) RADIUS attribute class.

**Value**— String
**Default**— No value
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared classification-script dhcp classifier

## Syntax

```
shared classification-script dhcp classifier name {
     description description;
}
```

## Hierarchy Level

```
[edit shared classification-script dhcp classifier]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure a subscriber classifier. For more information about subscriber classifiers, see the *SRC PE Subscribers and Subscription Guide*.

## Options

`name` *`name`*— Name of the classification script

**Value**— Text

`description` *`description`*—(Optional) Description of the classification script.

**Value**— Text
**Default**— No value
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared classification-script dhcp classifier *name* dhcp-classifier rule

Basic

### Syntax

```
shared classification-script dhcp classifier name dhcp-classifier rule name {
     target target;
}
```

### Hierarchy Level

```
[edit shared classification-script dhcp classifier name dhcp-classifier rule]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Specify a script for a rule in a classification script. Classification scripts are organized into rules. Each rule has a target and one or more match conditions.

### Options

`name` *`name`*— Rule in a classification script

**Value**—Text

`target` *`target`*—(Optional) Result of the classification script that is returned to the SAE.

**Value**— The result depends on the type of classification script:

- Subscriber classification script–An LDAP query that uniquely identifies a subscriber entry in the directory.
- DHCP classification script–DHCP profile.

**Default**— Not applicable
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Basic

# shared classification-script dhcp classifier *name* dhcp-classifier rule *name* condition

## Syntax

```
shared classification-script dhcp classifier name dhcp-
classifier rule name condition name ...
```

## Hierarchy Level

```
[edit shared classification-script dhcp classifier name dhcp-
classifier rule name condition]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure match conditions used to find a target. You can configure multiple conditions for each classifier rule.

## Options

`name` *`name`*— Match conditions used to find a target. For information about configuring match conditions, see *Classifying Interfaces and Subscribers with the SRC CLI* in *SRC PE Subscribers and Subscriptions Guide*.

**Value**—Text

## Required Privilege Level

system

## Required Editing Level

Basic

# shared classification-script dhcp classifier *name* dhcp-classifier rule *name* script

### Syntax

```
shared classification-script dhcp classifier name dhcp-classifier rule name script {
     script-value;
}
```

### Hierarchy Level

```
[edit shared classification-script dhcp classifier name dhcp-
classifier rule name script]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure a classification script rule to use a script target.

### Options

*`script-value`*—(Optional) Script target. The content of the script rule is interpreted when the classifier is initially loaded. The script rule can contain definitions of custom functions, which can be called during the matching process. Because you can insert arbitrary code into a script, you can use classification scripts to perform arbitrary tasks. Because script targets use asterisks, you cannot use asterisks in other types of targets.

**Value**— Script enclosed in quotation marks
**Default**— No value
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Basic

# shared classification-script interface classifier

## Syntax

```
shared classification-script interface classifier name {
     description description;
}
```

## Hierarchy Level

```
[edit shared classification-script interface classifier]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure an interface classifier. For more information about subscriber classifiers, see the *SRC PE Subscribers and Subscription Guide*.

## Options

`name` *`name`*— Name of the classification script

**Value**— Text

`description` *`description`*—(Optional) Description of the classification script.

**Value**— Text
**Default**— No value
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared classification-script interface classifier *name* interface-classifier rule

### Syntax

```
shared classification-script interface classifier name interface-classifier rule name
{
     target target;
}
```

### Hierarchy Level

```
[edit shared classification-script interface classifier name interface-
classifier rule]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure an interface classification rule

### Options

`name` *`name`*— Name of the rule in the interface classification script

**Value**— Text

`target` *`target`*—(Optional) Result of the classification script that gets returned to the SAE.

**Value**— Path to a policy group. For example, /sample/junose/DHCP.
**Default**— No value
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Basic

# shared classification-script interface classifier *name* interface-classifier rule *name* condition

## Syntax

```
shared classification-script interface classifier name interface-
classifier rule name condition name ...
```

## Hierarchy Level

```
[edit shared classification-script interface classifier name interface-
classifier rule name condition]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure match conditions used to find a target. You can configure multiple conditions for each classifier rule.

## Options

`name` *`name`*— Match conditions used to find a target. For more information about configuring match conditions, see *Classifying Interfaces and Subscribers with the SRC CLI* in *SRC PE Subscribers and Subscriptions Guide*.

**Value**—Text

## Required Privilege Level

system

## Required Editing Level

Basic

# shared classification-script interface classifier *name* interface-classifier rule *name* script

### Syntax

```
shared classification-script interface classifier name interface-
classifier rule name script {
     script-value;
}
```

### Hierarchy Level

```
[edit shared classification-script interface classifier name interface-
classifier rule name script]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure a classification script rule to use a script target.

### Options

*`script-value`*—(Optional) Script target. A script that can contain definitions of custom functions that can be called during the matching process. The complete content of the script is interpreted when the classifier is initially loaded. Because you can insert code into a script target, you can use the classification script to perform various tasks.

**Value**— Script enclosed in quotation marks.
**Default**— No value
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Basic

# shared classification-script subscriber classifier

## Syntax

```
shared classification-script subscriber classifier name {
     description description;
}
```

## Hierarchy Level

```
[edit shared classification-script subscriber classifier]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure a subscriber classifier. For more information about subscriber classifiers, see the *SRC PE Subscribers and Subscription Guide*.

## Options

`name` *`name`*— Name of the classification script

**Value**— Text

`description` *`description`*—(Optional) Description of the classification script.

**Value**— Text
**Default**— No value
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared classification-script subscriber classifier *name* subscriber-classifier rule

### Syntax

```
shared classification-script subscriber classifier name subscriber-
classifier rule name {
     target target;
}
```

### Hierarchy Level

```
[edit shared classification-script subscriber classifier name subscriber-
classifier rule]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Specify a script for a rule in a classification script. Classification scripts are organized into rules. Each rule has a target and one or more match conditions.

### Options

`name` *`name`*— Rule in a classification script

**Value**—Text

`target` *`target`*—(Optional) Result of the classification script that is returned to the SAE.

**Value**— The result depends on the type of classification script:

- Subscriber classification script–An LDAP query that uniquely identifies a subscriber entry in the directory.
- DHCP classification script–DHCP profile.

**Default**— Not applicable
**Editing Level**—Basic

### Required Privilege Level

system

## Required Editing Level

Basic

# shared classification-script subscriber classifier *name* subscriber-classifier rule *name* condition

### Syntax

```
shared classification-script subscriber classifier name subscriber-
classifier rule name condition name ...
```

### Hierarchy Level

```
[edit shared classification-script subscriber classifier name subscriber-
classifier rule name condition]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure match conditions used to find a target. You can configure multiple conditions for each classifier rule.

### Options

`name` *`name`*— Match conditions used to find a target. For information about configuring match conditions, see *Classifying Interfaces and Subscribers with the SRC CLI* in *SRC PE Subscribers and Subscriptions Guide*.

**Value**—Text

### Required Privilege Level

system

### Required Editing Level

Basic

# shared classification-script subscriber classifier *name* subscriber-classifier rule *name* script

### Syntax

```
shared classification-script subscriber classifier name subscriber-
classifier rule name script {
     script-value;
}
```

### Hierarchy Level

```
[edit shared classification-script subscriber classifier name subscriber-
classifier rule name script]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure a classification script rule to use a script target.

### Options

*`script-value`*—(Optional) Script target. The content of the script rule is interpreted when the classifier is initially loaded. The script rule can contain definitions of custom functions, which can be called during the matching process. Because you can insert arbitrary code into a script, you can use classification scripts to perform arbitrary tasks. Because script targets use asterisks, you cannot use asterisks in other types of targets.

**Value**— Script enclosed in quotation marks
**Default**— No value
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Basic

# shared network application-manager-group

## Syntax

```
shared network application-manager-group name {
     description description;
     application-manager-id application-manager-id;
     connected-sae [connected-sae...];
     pdp-group pdp-group;
     local-address-pools [local-address-pools...];
     managing-sae-ior managing-sae-ior;
}
```

## Hierarchy Level

```
[edit shared network application-manager-group]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure application managers for the Juniper policy server (JPS).

## Options

`name` *`name`*— Name of application manager group.

**Value**— Text string

`description` *`description`*—(Optional) Information about the SAE community.

**Value**— Text string
**Default**— No value
**Editing Level**—Basic

`application-manager-id` *`application-manager-id`*— Unique identifier within the domain of the service provider for the application manager that handles the service session; used to specify the application manager identifier (AMID) that is included in all messages sent to and from the policy server.

This option is required. The SAE constructs the AMID value by concatenating two fields: Application Manager Tag (this option) and Application Type (this value is obtained from a service during activation).

**Value**— 2-byte unsigned integer
**Default**— No value

**Editing Level**—Basic

`connected-sae [connected-sae...]`— SAEs that are connected to the specified policy server group (PDP Group). This list becomes the community of SAEs.

This option is required. When you modify a community, wait for passive session stores of the new community members to be updated before you shut down the current active SAE. Otherwise, a failover from the current active SAE to the new member is triggered immediately, and the new member's session store may not have received all data from the active SAE's session store.

**Value**— IP address or hostname
**Default**— No value
**Editing Level**—Basic

`pdp-group pdp-group`— Name of the policy server group associated with this SAE community.

**Value**— Text string
**Default**— No value
**Editing Level**—Basic

`local-address-pools [local-address-pools...]`—(Optional) List of IP address pools that this PDP group currently manages and stores. You must configure a local address pool if you are using the NIC so that the NIC can resolve the IP-to-SAE mapping.

**Value**— An address pool is specified by a sequence of zero or more address sets enclosed in parentheses ( ). An address set can be either a range of addresses or a subnetwork with or without address exclusions.

- Specify a range by entering a start and end address separated by a space and enclosed in square brackets. For example, [10.10.10.5 10.10.10.250] denotes the address set 10.10.10.5 to 10.10.10.250 inclusive.
- Specify a subnet with optional address exclusions in curly brackets. You must include a base address and a mask or prefix length separated by a forward slash. To exclude addresses, follow the forward slash with a comma and a comma-separated list of excluded addresses. For example:
  - {10.20.20.0/24} denotes all addresses that start with 10.20.20
  - {10.21.0.0/255.255.0.0} denotes all addresses that start with 10.21
  - {10.20.30.0/24,10.20.30.0,10.20.30.255} denotes all addresses that start with 10.20.30 except 10.20.30.0 and 10.20.30.255

**Default**— No value
**Editing Level**—Basic

`managing-sae-ior` *`managing-sae-ior`*—(Optional) Common Object Request Broker Architecture (CORBA) reference for the SAE managing this policy server group. The amIorPublisher script provides this information when the SAE connects to the policy server. If you do not select this script when configuring initialization scripts, enter a value.

**Value**— One of the following items:

- The actual CORBA reference for the SAE
- The absolute path to the interoperable object reference (IOR) file
- A corbaloc URL in the form corbaloc::<host>:8801/SAE
  - <host>—Name or IP address of the SAE host

The following examples show different CORBA references.

- Absolute path—/opt/UMC/sae/var/run/sae.ior
- corbaloc URL—boston:8801/sae
- Actual IOR—IOR:0000000000000002438444C3A736D67742E6A756E697...

**Default**— No value
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Basic

# shared network device

## Syntax

```
shared network device name {
     description description;
     management-address management-address;
     device-type (junose | junos-ise | junos | pcmm | third-party | junos-dmi | junos-
gx);
     origin-host origin-host;
     qos-profile [qos-profile...];
     peers [peers...];
     accounting-per-attachment;
}
```

## Hierarchy Level

```
[edit shared network device]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure a device that the SAE manages.

## Options

`name` *`name`*— Name of the router or other device that the SAE manages.

**Value**— Text; must use lowercase characters

`description` *`description`*—(Optional) Description of the device that the SAE manages.

**Value**— Text
**Default**— No value
**Editing Level**—Basic

`management-address` *`management-address`*—(Optional) IP address of the device. For networks with JUNOSe routers, the redirect component in redundant mode uses this address to send SNMP set messages to set a static route to the new redirect server after a failover.

**Value**— IP address
**Default**— No value
**Editing Level**—Basic

`device-type (junose | junos-ise | junos | pcmm | third-party | junos-dmi | junos-gx)`— Type of device that you are configuring.

**Value**

- `junose`— JUNOSe router
- `junos-ise`— Intelligent service edge
- `junos`— JUNOS routing platform
- `pcmm`— CMTS device
- `third-party`— Third-party device
- `junos-dmi`— JUNOS routing platform through JUNOS Space
- `junos-gx`— JUNOS SCG Gx devices

**Default**— No value
**Editing Level**—Basic

`origin-host` *`origin-host`*—(Optional) Devices managed through Diameter are identified through their origin host. If the origin-host is not specified, it defaults to the device name.

**Value**—Text
**Editing Level**—Basic

`qos-profile [`*`qos-profile`*`...]`—(Optional) For JUNOSe routers, specifies quality of service (QoS) profiles that are configured on the router.

**Value**— Single QoS profile or a list of QoS profiles
**Default**— No value
**Editing Level**—Basic

`peers [`*`peers`*`...]`—(Optional) Peers.

**Value**—Text
**Editing Level**—Basic

`accounting-per-attachment`—(Optional) This flag is used for JUNOSe devices only.If the attribute accounting-per-attachment is set then attachment accounting will be calculated . If the attribute no-accounting-per-attachment is set then attachment accounting will be always set to false. If both the attributes accounting-per-attachment and no-accounting-per-attachment are not set then attachment accounting will be always set to true.

**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared network device *name* charging-server-info

### Syntax

```
shared network device name charging-server-info {
     primary-event-charging-function primary-event-charging-function;
     sec-event-charging-function sec-event-charging-function;
     primary-charging-collection-function primary-charging-collection-function;
     sec-charging-collection-function sec-charging-collection-function;
}
```

### Hierarchy Level

```
[edit shared network device name charging-server-info]
```

### Release Information

Statement introduced in SRC Release 4.9.0

### Description

Charging server information for Gx Device

### Options

`primary-event-charging-function` *`primary-event-charging-function`*—(Optional) Primary Event Charging Function Name

**Value**— Text
**Default**— No value
**Editing Level**—Basic

`sec-event-charging-function` *`sec-event-charging-function`*—(Optional) Secondary Event Charging Function Name

**Value**— Text
**Default**— No value
**Editing Level**—Basic

`primary-charging-collection-function` *`primary-charging-collection-function`*—(Optional) Primary Event Charging Collection Function Name

**Value**— Text
**Default**— No value
**Editing Level**—Basic

`sec-charging-collection-function` *`sec-charging-collection-function`*—(Optional) Secondary Event Charging Collection Function Name

**Value**— Text
**Default**— No value
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared network device *name* interface-classifier rule

### Syntax

```
shared network device name interface-classifier rule name {
     target target;
}
```

### Hierarchy Level

```
[edit shared network device name interface-classifier rule]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure an interface classification rule.

### Options

`name` *`name`*— Name of the rule in the interface classification script.

**Value**— Text

`target` *`target`*—(Optional) Result of the classification script that gets returned to the SAE.

**Value**— Path to a policy group. For example, /sample/junose/DHCP.
**Default**— No value
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Basic

# shared network device *name* interface-classifier rule *name* condition

## Syntax

```
shared network device name interface-classifier rule name condition name ...
```

## Hierarchy Level

```
[edit shared network device name interface-classifier rule name condition]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure match conditions used to find a target. You can configure multiple conditions for each classifier rule.

## Options

`name` *`name`*— Match conditions used to find a target. For more information about configuring match conditions, see *Classifying Interfaces and Subscribers with the SRC CLI* in *SRC PE Subscribers and Subscriptions Guide*.

**Value**—Text

## Required Privilege Level

system

## Required Editing Level

Basic

# shared network device *name* interface-classifier rule *name* script

### Syntax

```
shared network device name interface-classifier rule name script {
     script-value;
     include include;
}
```

### Hierarchy Level

```
[edit shared network device name interface-classifier rule name script]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure an interface classifier for a network device. For more information about interface classifiers, see the *SRC PE Subscribers and Subscriptions Guide*.

### Options

`script-value`—(Optional) Script target. A script that can contain definitions of custom functions that can be called during the matching process. The complete content of the script is interpreted when the classifier is initially loaded. Because you can insert code into a script target, you can use the classification script to perform various tasks.

**Value**— Script enclosed in quotation marks.
**Default**— No value
**Editing Level**—Basic

`include include`—(Optional) Name of an existing script to include in the script you are configuring.

**Value**— *script-name*
**Default**— No value
**Editing Level**—Basic

### Required Privilege Level

system

## Required Editing Level

Basic

# shared network device *name* pool-retrieval

## Syntax

```
shared network device name pool-retrieval {
     junos-protocol (ssh | telnet);
     junos-login-name junos-login-name;
     junos-password junos-password;
     netconf-port netconf-port;
     key-file-name key-file-name;
}
```

## Hierarchy Level

```
[edit shared network device name pool-retrieval]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Options

`junos-protocol (ssh | telnet)`— Underlying communication protocol to junos-ise device

**Value**

- `ssh`— Establishes the connection using SSHv2 Protocol
- `telnet`— Establishes the connection using telnet Protocol

**Editing Level**—Basic

`junos-login-name` *`junos-login-name`*— Username used to connect to junos-ise device

**Value**—Text
**Editing Level**—Basic

`junos-password` *`junos-password`*—(Optional) Password used to connect to junos-ise device

**Value**—Secret text
**Editing Level**—Basic

`netconf-port` *`netconf-port`*—(Optional) NETCONF port for SSH communication

**Value**—Integer in the range 1–65535

**Default**— No value
**Editing Level**—Basic

`key-file-name` *`key-file-name`*—(Optional) SSH key File name used for key based authentication

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Expert

# shared network device *name* virtual-router

## Syntax

```
shared network device name virtual-router name {
     sae-connection [sae-connection...];
     snmp-read-community snmp-read-community;
     snmp-write-community snmp-write-community;
     scope [scope...];
     local-address-pools local-address-pools;
     static-address-pools static-address-pools;
     tracking-plug-in [tracking-plug-in...];
     user-tracking-plug-in [user-tracking-plug-in...];
     authentication-plug-in [authentication-plug-in...];
     vpn-id (VRF);
     dual-stack-delay dual-stack-delay;
}
```

## Hierarchy Level

```
[edit shared network device name virtual-router]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure a virtual router object.

## Options

`name` *`name`*— Name of the virtual router.

**Value**— One of the following:

- For JUNOSe routers, the name of the VR, which is case sensitive, must exactly match the name of the VR configured on the router.
- For JUNOS routing platforms, CMTS devices, and other third-party devices, use the name default

`sae-connection [`*`sae-connection`*`...]`— IP addresses of the SAEs that can manage this device. This option is required for the SAE to work with the router.

To specify the active SAE and the standby SAE, enter an exclamation point (!) after the hostname or IP address of the SAEs.

**Value**— IP address or a list of IP addresses

Specify the active SAE and the redundant SAE by entering an exclamation

point (!) after the hostname or IP address of the connected SAEs. For example: 10.3.219.10! 10.3.219.20!

**Default**— No value
**Editing Level**—Basic

`snmp-read-community` *`snmp-read-community`*—(Optional) SNMP community name associated with SNMP read-only operations for this virtual router. Read operations are typically used by router initialization scripts to read information, such as IP address pools, from the router.

**Value**— Text
**Default**— No value
**Editing Level**—Basic

`snmp-write-community` *`snmp-write-community`*—(Optional) SNMP community name associated with SNMP write operations for this virtual router. The write community is used only by the redirect server to set a static route.

**Value**— Text
**Default**— No value
**Editing Level**—Basic

`scope [`*`scope`*`...]`—(Optional) The virtual router can be associated with a number of service scopes. The scopes are available for subscribers connected to this virtual router for selecting customized versions of services.

**Value**— Text
**Default**— No value
**Editing Level**—Basic

`local-address-pools` *`local-address-pools`*—(Optional) For JUNOSe virtual routers, address of local address pools on the JUNOSe virtual router.

- If you do not configure the PoolPublisher router initialization script for a JUNOSe router, configure this option for a JUNOSe virtual router.
- If you do configure the PoolPublisher router initialization script for a JUNOSe router, configure this option if pool data needs to be updated. This data needs to be updated if you change the address pools on a virtual router that is actively being managed by SAE. The reason is that the initialization script is triggered only when the COPS connection is started.

For CMTS devices, you must configure either a local address pool or a static address pool so that the NIC can resolve the IP-to-SAE mapping.

**Value**— An address pool is specified by a sequence of zero or more address sets enclosed in parentheses ( ). An address set can be either a range of addresses or a subnetwork with or without address exclusions.

- Specify a range by entering a start and end address separated by a space and enclosed in square brackets. For example, [10.10.10.5 10.10.10.250] denotes the address set 10.10.10.5 to 10.10.10.250 inclusive.
- Specify a subnet with optional address exclusions in curly brackets. You must include a base address and a mask or prefix length separated by a forward slash. To exclude addresses, follow the forward slash with a comma and a comma-separated list of excluded addresses. For example:
  - {10.20.20.0/24} denotes all addresses that start with 10.20.20
  - {10.21.0.0/255.255.0.0} denotes all addresses that start with 10.21
  - {10.20.30.0/24,10.20.30.0,10.20.30.255} denotes all addresses that start with 10.20.30 except 10.20.30.0 and 10.20.30.255

**Default**— No value
**Editing Level**—Basic

`static-address-pools` *`static-address-pools`*—(Optional) IP address pools that a JUNOSe virtual router manages but does not store on the router because the router is not managing the allocation of these addresses. For CMTS devices, you must configure either a local address pool or a static address pool so that the NIC can resolve the IP-to-SAE mapping.

**Value**—
**Default**— No value
**Editing Level**—Basic

`tracking-plug-in [`*`tracking-plug-in`*`...]`—(Optional) List of plug-ins that are notified of interface events for this virtual router.

**Value**— Single tracking plug-in or a list of tracking plug-ins
**Default**— No value
**Editing Level**—Basic

`user-tracking-plug-in [`*`user-tracking-plug-in`*`...]`—(Optional) Single tracking plug-in or a list of tracking plug-ins used to track subscriber sessions associated with this virtual router.

**Value**— Single tracking plug-in or a list of tracking plug-ins
**Default**— No value
**Editing Level**—Basic

`authentication-plug-in [authentication-plug-in...]`—(Optional) List of plug-ins that are notified of interface events for this virtual router.

**Value**— Single authentication plug-in or a list of authentication plug-ins
**Default**— No value
**Editing Level**—Basic

`vpn-id (VRF)`—(Optional) If the VPN identifier is set to "VRF", then the VRF name reported by the device is used as the VPN identifier for subscriber sessions. Otherwise the VPN identifier is used as configured.

**Value**

- `VRF`—Use the VRF name reported by the device.

**Editing Level**—Basic

`dual-stack-delay dual-stack-delay`—(Optional) If configured SAE will wait after receiving a REQ for a new interface before sending the interface plug-in event and attempting to login a UserSession.
NOTE: configuring this attribute to a value different than 0 will lower the login rate for single-stack interfaces.

**Value**—Integer in the range 0–10000 ms
**Default**— 0
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared network policy-decision-point

## Syntax

```
shared network policy-decision-point name {
     description description;
     pdp-address pdp-address;
     pdp-group pdp-group;
}
```

## Hierarchy Level

```
[edit shared network policy-decision-point]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configures the policy server as a policy decision point.

## Options

`name` *`name`*— Name of policy decision point.

**Value**— Text string

`description` *`description`*—(Optional) Information about this policy server.

**Value**— Text string
**Default**— No value
**Editing Level**—Basic

`pdp-address` *`pdp-address`*— IP address of the policy server. The SAE uses this address to establish a COPS connection with the policy server.

**Value**— IP address
**Default**— No value
**Editing Level**—Basic

`pdp-group` *`pdp-group`*— Name of the policy server group.

**Value**— Text string
**Default**— No value

**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration

## Syntax

```
shared sae configuration {
     persistent-login-cache-remove-stale;
     user-restoration-threads user-restoration-threads;
     substitution-num-engines substitution-num-engines;
     substitution-cache-size substitution-cache-size;
     compress-session-data;
     session-id-old-format;
}
```

## Hierarchy Level

```
[edit shared sae configuration]
```

## Options

`persistent-login-cache-remove-stale`—

**Default**—true
**Editing Level**—Expert

`user-restoration-threads` *`user-restoration-threads`*— Number of threads for background user restoration

**Value**—Integer in the range 5–50
**Default**—5
**Editing Level**—Basic

`substitution-num-engines` *`substitution-num-engines`*—(Optional) Number of Substitution Engines

**Value**—Integer in the range -2147483648–2147483647
**Default**—16
**Editing Level**—Expert

`substitution-cache-size` *`substitution-cache-size`*—(Optional) Substitution Engine Cache Size

**Value**—Integer in the range -2147483648–2147483647
**Default**—5000
**Editing Level**—Expert

`compress-session-data`—(Optional) Enable or disable compression of the serialized data when saving the state of the SAE. You can use serialized data compression to reduce the size of sessions objects that the SAE sends across the network for the session store feature.

Enabling this option reduces the size of objects, but increases the CPU load on the SAE. We recommend that you do not enable this option because of the increase to the CPU load.

**Default**— Disabled
**Editing Level**—Basic

`session-id-old-format`—(Optional) Revert to the old style of generating the user session accounting id.

Enabling this attribute will cause the generated user session id to not be suitable for use as a device session id in the session database. We recommend that you do not enable this option because of session database incompatibily

**Default**— false
**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration aggregate-services

## Syntax

```
shared sae configuration aggregate-services {
     keepalive-time keepalive-time;
     keepalive-retry-time keepalive-retry-time;
     activation-deactivation-time activation-deactivation-time;
     failed-notification-retry-time failed-notification-retry-time;
     reactivation-verification-time reactivation-verification-time;
}
```

## Hierarchy Level

```
[edit shared sae configuration aggregate-services]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure timers and intervals associated with monitoring and activating aggregate sessions.

## Options

`keepalive-time` *`keepalive-time`*— Interval at which keepalive messages are sent from an aggregate service session and an associated fragment service session.

**Value**— Number of seconds in the range 1–2147483647
**Default**— 86400
**Editing Level**—Basic

`keepalive-retry-time` *`keepalive-retry-time`*— Time to wait before resending unacknowledged keepalive messages.

**Value**— Number of seconds in the range 1–2147483647
**Default**— 900
**Editing Level**—Basic

`activation-deactivation-time` *`activation-deactivation-time`*— Time to wait before retrying failed activation or deactivation of the fragment service session.

**Value**— Number of seconds in the range 1–2147483647
**Default**— 900
**Editing Level**—Basic

`failed-notification-retry-time` *`failed-notification-retry-time`*— Length of time to continue sending failure notifications if an aggregate service cannot reach a fragment service, or a fragment service cannot reach an aggregate service during shutdown of the aggregate service.

**Value**— Number of seconds in the range 1–2147483647
**Default**— 86400
**Editing Level**—Basic

`reactivation-verification-time` *`reactivation-verification-time`*— Maximum time (in seconds) to verify fragment reactivation

**Value**—Integer in the range -2147483648–2147483647
**Default**—30
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Normal

# shared sae configuration driver

## Syntax

```
shared sae configuration driver {
     unauthenticated-subscriber-dn unauthenticated-subscriber-dn;
     virtual-portal-address virtual-portal-address;
     mac-cache-expiration mac-cache-expiration;
}
```

## Hierarchy Level

```
[edit shared sae configuration driver]
```

## Options

`unauthenticated-subscriber-dn` *`unauthenticated-subscriber-dn`*— Transitional profile for subscribers who are not logged in to the SAE. For example, if a subscriber logs out of the SAE using the API method Subscriber.logout(), an unauthenticated subscriber session is created. The unauthenticated subscriber profile must exist and can be subscribed to services available for unauthenticated subscribers. The portal implementation determines whether unauthenticated (anonymous) subscribers can access the portal.

**Value**— <DN>. You can use the special value <base> to refer to the globally configured base DN. The string <base> is replaced with the directory base DN.
**Default**— *uniqueID=unauthenticated,ou=local,retailerName=default,o=Users,<base>*
**Editing Level**—Normal

`virtual-portal-address` *`virtual-portal-address`*—(Optional) IP address that policies use as a substitution to send traffic to a captive portal.

**Value**— IP address
**Default**— No value
**Editing Level**—Normal

`mac-cache-expiration` *`mac-cache-expiration`*— Amount of time that a subscriber profile remains in the SAE's in-memory cache. Configure this parameter to be greater than the time required for a DHCP subscriber to transition from an unauthenticated IP address to an authenticated IP address or vice versa. The time required for a DHCP subscriber to transition from one IP address to another depends on the lease times configured on the JUNOSe router and the instructions given to the subscriber on the Web portal, such as reboot your PC now.

**Value**— Number of seconds in the range 0–2147483647
**Default**— 1800
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Normal

# shared sae configuration driver aaa

## Syntax

```
shared sae configuration driver aaa {
     sae-community-manager sae-community-manager;
     transient-session-timeout transient-session-timeout;
     max-update-interval max-update-interval;
     update-grace-period update-grace-period;
     resume-unrecovered;
     keep-alive-timeout keep-alive-timeout;
     registry-retry-interval registry-retry-interval;
     reply-timeout reply-timeout;
     sequential-message-timeout sequential-message-timeout;
     thread-pool-size thread-pool-size;
     thread-idle-timeout thread-idle-timeout;
}
```

## Hierarchy Level

```
[edit shared sae configuration driver aaa]
```

## Release Information

Statement introduced in SRC Release 3.0.0

## Description

Configure the SAE to manage AAA NAS groups.

## Options

`sae-community-manager` *`sae-community-manager`*— Name of the community manager that manages AAA NAS group communities. Active SAEs are selected from this community.

**Value**— Community name
**Default**— AAACommunityManager
**Editing Level**—Expert

`transient-session-timeout` *`transient-session-timeout`*—(Optional) Time to wait before expiring a temporary session.

**Value**— Number of seconds
**Default**— 90
**Editing Level**—Basic

`max-update-interval` *`max-update-interval`*—(Optional) Maximum interval of interim updates for user sessions.

**Value**— Number of seconds
**Default**— 3600
**Editing Level**—Basic

`update-grace-period` *`update-grace-period`*—(Optional) Grace period to expect an interim update for a user session.

**Value**— Number of seconds
**Default**— 900
**Editing Level**—Basic

`resume-unrecovered`—(Optional) Specifies whether a user session that has failed to recover from a failover should be resumed.

**Value**— true or false
**Default**— true
**Editing Level**—Basic

`keep-alive-timeout` *`keep-alive-timeout`*—(Optional) Time to wait before expiring the registry to a Diameter server.

**Value**— Number of seconds
**Default**— 60
**Editing Level**—Basic

`registry-retry-interval` *`registry-retry-interval`*—(Optional) Time to wait before retrying a failed registry to a Diameter server.

**Value**— Number of seconds
**Default**— 30
**Editing Level**—Basic

`reply-timeout` *`reply-timeout`*—(Optional) Time to wait before expiring a request sent to a Diameter server.

**Value**— Number of seconds
**Default**— 25
**Editing Level**—Basic

`sequential-message-timeout` *`sequential-message-timeout`*—(Optional) Time to wait before expiring an expected message.

**Value**— Number of seconds
**Default**— 20
**Editing Level**—Basic

`thread-pool-size` *`thread-pool-size`*—(Optional) Number of working threads that process requests. [Note: These threads will be used for post-sync also. Value should be chosen accordingly]

**Value**— Thread pool size
**Default**— 200
**Editing Level**—Basic

`thread-idle-timeout` *`thread-idle-timeout`*—(Optional) Time to wait before stopping working threads after they become idle.

**Value**— Number of seconds
**Default**— 60
**Editing Level**—Basic

**Required Privilege Level**

system

**Required Editing Level**

Normal

# shared sae configuration driver aaa session-store

## Syntax

```
shared sae configuration driver aaa session-store {
     maximum-queue-age maximum-queue-age;
     maximum-queued-operations maximum-queued-operations;
     maximum-queue-size maximum-queue-size;
     maximum-file-size maximum-file-size;
     minimum-disk-space-usage minimum-disk-space-usage;
     rotation-batch-size rotation-batch-size;
     maximum-session-size maximum-session-size;
     disk-load-buffer-size disk-load-buffer-size;
     network-buffer-size network-buffer-size;
     retry-interval retry-interval;
     communications-timeout communications-timeout;
     load-timeout load-timeout;
     idle-timeout idle-timeout;
     maximum-backlog-ratio maximum-backlog-ratio;
     minimum-backlog minimum-backlog;
}
```

## Hierarchy Level

```
[edit shared sae configuration driver aaa session-store]
```

## Release Information

Statement introduced in SRC Release 3.0.0

## Description

Configure the session store for the device driver.

`maximum-queue-age` *`maximum-queue-age`*—(Optional) Maximum age that a queue of buffered store operations (such as adding a session to the store or removing a session from the store) can reach before the queue is written to a session store file.

**Value**— Number of milliseconds in the range 0–2147483647. A value of -1 indicates that there is no limit. A value of zero causes the session store to write each store operation to a session store file immediately.
**Default**— 5000
**Editing Level**—Advanced

`maximum-queued-operations` *`maximum-queued-operations`*—(Optional) Number of buffered store operations that are queued before the queue is written to a session store file.

**Value**— Integer in the range 0–2147483647. A value of -1 indicates that there is no limit. A value of zero causes the session store to write each store operation to a session store file immediately.
**Default**— 50
**Editing Level**—Advanced

`maximum-queue-size` *`maximum-queue-size`*—(Optional) Maximum size that a queue of buffered store operations can reach before the queue is written to a session store file.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 51050
**Editing Level**—Advanced

`maximum-file-size` *`maximum-file-size`*—(Optional) Maximum size of session store files. When a file reaches this size, a new file is created.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 25000000
**Editing Level**—Advanced

`minimum-disk-space-usage` *`minimum-disk-space-usage`*—(Optional) Percentage of space in all session store files that is used by live sessions. When the percentage of space in the session store files that is used by live sessions decreases to this percentage, the oldest session store file is compacted and appended to the newest session store file, and then the oldest session store file is deleted.

**Value**— Percentage of disk space in the range 1–100. We recommend a range of 30-50
**Default**— 25
**Editing Level**—Advanced

`rotation-batch-size` *`rotation-batch-size`*—(Optional) When the oldest session store file is rotated, specifies the number of sessions that are rotated from the oldest file to the newest file at the same time. While a set of sessions is rotated, no other session store activity can take place.

**Value**— Integer in the range 0–2147483647
**Default**— 50
**Editing Level**—Advanced

`maximum-session-size` *`maximum-session-size`*—(Optional) Maximum size of a single subscriber or service session. Use this parameter to reserve memory for an internal buffer.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 10000
**Editing Level**—Advanced

`disk-load-buffer-size` *`disk-load-buffer-size`*—(Optional) Size of the buffer that is

used to load all of a session store's files from disk at startup.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 1000000
**Editing Level**—Advanced

`network-buffer-size` *`network-buffer-size`*—(Optional) Size of the buffer that holds messages or message segments that are waiting to be sent to passive session stores

**Value**— Number of bytes in the range 21+ <size of maximum session size field>–2147483647
**Default**— 51050
**Editing Level**—Advanced

`retry-interval` *`retry-interval`*—(Optional) Time interval between attempts by the active session store to connect to missing passive session stores.

**Value**— Number of milliseconds in the range 0–2147483647
**Default**— 5000
**Editing Level**—Advanced

`communications-timeout` *`communications-timeout`*—(Optional) Amount of time in milliseconds that a session store waits before closing when it is blocked from reading or writing a message. This timeout does not apply when a session store is waiting for a remote session store to load its state from disk. (A non-positive number means wait forever. This is not recommended.)

**Value**— Number of milliseconds
**Default**— 60000
**Editing Level**—Advanced

`load-timeout` *`load-timeout`*—(Optional) Amount of time in milliseconds that an active session store waits for a passive session store or a passive session store waits for an active session store to load its data from disk before it closes the connection to the session store. (A non-positive number means wait forever. This is not recommended.)

**Value**— Number of milliseconds
**Default**— 420000
**Editing Level**—Advanced

`idle-timeout` *`idle-timeout`*—(Optional) Amount of time that a passive session store waits for activity from the active session store before it closes the connection to the active session store. This timeout applies after the session store startup and initial update processes

are complete.

**Value**— Number of milliseconds in the range 0–2147483647
**Default**— 3600000
**Editing Level**—Advanced

`maximum-backlog-ratio` *`maximum-backlog-ratio`*—(Optional) Along with the minimum backlog size, specifies when the active session store closes the connection to a passive session store because of a backlog of messages waiting to be sent. After the startup and initial update processes are complete, if the backlog becomes too large, the connection to the passive session store is closed. After the retry interval ends, a new connection is opened.

If the backlog of unsent operations (in bytes) divided by the total size (in bytes) of all live store operations is greater than this number, the connection is closed.

**Value**— Floating point number
**Default**— 1.5
**Editing Level**—Advanced

`minimum-backlog` *`minimum-backlog`*—(Optional) Along with the maximum backlog ratio, specifies when the active session store closes the connection to a passive session store because of a backlog of messages waiting to be sent to the passive session store. After the startup and initial update processes are complete, if the backlog becomes too large, the connection to the passive session store is closed. After the retry interval ends, a new connection is opened.

If the maximum backlog ratio is met, the active session store does not close the connection unless the backlog of messages (in bytes) is greater than this number.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 5000000
**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Advanced

# shared sae configuration driver junos-dmi

## Syntax

```
shared sae configuration driver junos-dmi {
     junos-space-server-address junos-space-server-address;
     junos-space-port-number junos-space-port-number;
     junos-space-user-name junos-space-user-name;
     junos-space-password junos-space-password;
     junos-space-protocol (http | https);
     message-timeout message-timeout;
     batch-size batch-size;
     batch-time batch-time;
     configuration-group-name configuration-group-name;
     sae-community-manager sae-community-manager;
}
```

## Hierarchy Level

```
[edit shared sae configuration driver junos-dmi]
```

## Release Information

Statement introduced in SRC Release 5.0.0

## Description

Configure the SAE to manage DMI devices.

`junos-space-server-address` *`junos-space-server-address`*—(Optional) JUNOS Space server that manages the routers.

**Value**— IP address or hostname.
**Default**— No value
**Editing Level**—Normal

`junos-space-port-number` *`junos-space-port-number`*—(Optional) JUNOS Space port number

**Value**—Integer in the range -2147483648–2147483647
**Default**— 8080
**Editing Level**—Normal

`junos-space-user-name` *`junos-space-user-name`*—(Optional) JUNOS Space user name

**Value**—Text
**Default**— No value
**Editing Level**—Normal

`junos-space-password` *`junos-space-password`*—(Optional) Password to authenticate with JUNOS Space

**Value**—Secret text
**Default**— No value
**Editing Level**—Normal

`junos-space-protocol (http | https)`—(Optional) Protocol to communicate with JUNOS Space

**Value**

- `http`—
- `https`—

**Default**— http
**Editing Level**—Normal

`message-timeout` *`message-timeout`*—(Optional) Amount of time that the router driver waits for a response from Junos Space. Under a high load the router may not be able to respond fast enough to requests.

Change this value only if a high number of timeout events appear in the error log.

**Value**— Number of milliseconds in the range 0–2147483647
**Default**— 120000
**Editing Level**—Advanced

`batch-size` *`batch-size`*—(Optional) Minimum number of service configuration transactions that are committed at the same time. If any of the transactions in a batch fails, all transactions are aborted, and the associated service activations or deactivations fail.

To control maximum latency for a job when services are activated in parallel, specify 120% of the number of CORBA threads as the batch size.

**Value**— Integer in the range 0–2147483647
**Default**— 10
**Editing Level**—Advanced

`batch-time` *`batch-time`*—(Optional) Maximum time to collect configuration transactions in a batch. The batch is completed if either the batch size or the batch time is reached.

The completion time is calculated from the creation of a batch. Note that the batch time is a function of the total configuration size and not of the number of commands in the

configuration transactions.

**Value**— Number of milliseconds in the range 0–2147483647
**Default**— 2000
**Editing Level**—Advanced

`configuration-group-name` *`configuration-group-name`*— Name of group on the JUNOS routing platform in which provisioning objects are stored.

**Value**— Name configured on the JUNOS routing platform
**Default**— sdx
**Editing Level**—Advanced

`sae-community-manager` *`sae-community-manager`*— Name of the community manager that manages DMI driver communities. Active SAEs are selected from this community.

**Value**— Community name
**Default**— DmiCommunityManager
**Editing Level**—Expert

## Required Privilege Level

system

## Required Editing Level

Normal

# shared sae configuration driver junos-dmi session-store

### Syntax

```
shared sae configuration driver junos-dmi session-store {
     maximum-queue-age maximum-queue-age;
     maximum-queued-operations maximum-queued-operations;
     maximum-queue-size maximum-queue-size;
     maximum-file-size maximum-file-size;
     minimum-disk-space-usage minimum-disk-space-usage;
     rotation-batch-size rotation-batch-size;
     maximum-session-size maximum-session-size;
     disk-load-buffer-size disk-load-buffer-size;
     network-buffer-size network-buffer-size;
     retry-interval retry-interval;
     communications-timeout communications-timeout;
     load-timeout load-timeout;
     idle-timeout idle-timeout;
     maximum-backlog-ratio maximum-backlog-ratio;
     minimum-backlog minimum-backlog;
}
```

### Hierarchy Level

```
[edit shared sae configuration driver junos-dmi session-store]
```

### Release Information

Statement introduced in SRC Release 5.0.0

### Description

Configure the session store for the device driver.

`maximum-queue-age` *`maximum-queue-age`*—(Optional) Maximum age that a queue of buffered store operations (such as adding a session to the store or removing a session from the store) can reach before the queue is written to a session store file.

**Value**— Number of milliseconds in the range 0–2147483647. A value of -1 indicates that there is no limit. A value of zero causes the session store to write each store operation to a session store file immediately.
**Default**— 5000
**Editing Level**—Advanced

`maximum-queued-operations` *`maximum-queued-operations`*—(Optional) Number of buffered store operations that are queued before the queue is written to a session store file.

**Value**— Integer in the range 0–2147483647. A value of -1 indicates that there is no limit. A value of zero causes the session store to write each store operation to a session store file immediately.
**Default**— 50

**Editing Level**—Advanced

`maximum-queue-size` *`maximum-queue-size`*—(Optional) Maximum size that a queue of buffered store operations can reach before the queue is written to a session store file.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 51050
**Editing Level**—Advanced

`maximum-file-size` *`maximum-file-size`*—(Optional) Maximum size of session store files. When a file reaches this size, a new file is created.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 25000000
**Editing Level**—Advanced

`minimum-disk-space-usage` *`minimum-disk-space-usage`*—(Optional) Percentage of space in all session store files that is used by live sessions. When the percentage of space in the session store files that is used by live sessions decreases to this percentage, the oldest session store file is compacted and appended to the newest session store file, and then the oldest session store file is deleted.

**Value**— Percentage of disk space in the range 1–100. We recommend a range of 30-50
**Default**— 25
**Editing Level**—Advanced

`rotation-batch-size` *`rotation-batch-size`*—(Optional) When the oldest session store file is rotated, specifies the number of sessions that are rotated from the oldest file to the newest file at the same time. While a set of sessions is rotated, no other session store activity can take place.

**Value**— Integer in the range 0–2147483647
**Default**— 50
**Editing Level**—Advanced

`maximum-session-size` *`maximum-session-size`*—(Optional) Maximum size of a single subscriber or service session. Use this parameter to reserve memory for an internal buffer.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 10000
**Editing Level**—Advanced

`disk-load-buffer-size` *`disk-load-buffer-size`*—(Optional) Size of the buffer that is used to load all of a session store's files from disk at startup.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 1000000
**Editing Level**—Advanced

`network-buffer-size` *`network-buffer-size`*—(Optional) Size of the buffer that holds messages or message segments that are waiting to be sent to passive session stores

**Value**— Number of bytes in the range 21+ <size of maximum session size field>–2147483647
**Default**— 51050
**Editing Level**—Advanced

`retry-interval` *`retry-interval`*—(Optional) Time interval between attempts by the active session store to connect to missing passive session stores.

**Value**— Number of milliseconds in the range 0–2147483647
**Default**— 5000
**Editing Level**—Advanced

`communications-timeout` *`communications-timeout`*—(Optional) Amount of time in milliseconds that a session store waits before closing when it is blocked from reading or writing a message. This timeout does not apply when a session store is waiting for a remote session store to load its state from disk. (A non-positive number means wait forever. This is not recommended.)

**Value**— Number of milliseconds
**Default**— 60000
**Editing Level**—Advanced

`load-timeout` *`load-timeout`*—(Optional) Amount of time in milliseconds that an active session store waits for a passive session store or a passive session store waits for an active session store to load its data from disk before it closes the connection to the session store. (A non-positive number means wait forever. This is not recommended.)

**Value**— Number of milliseconds
**Default**— 420000
**Editing Level**—Advanced

`idle-timeout` *`idle-timeout`*—(Optional) Amount of time that a passive session store

waits for activity from the active session store before it closes the connection to the active session store. This timeout applies after the session store startup and initial update processes are complete.

**Value**— Number of milliseconds in the range 0–2147483647
**Default**— 3600000
**Editing Level**—Advanced

`maximum-backlog-ratio` *`maximum-backlog-ratio`*—(Optional) Along with the minimum backlog size, specifies when the active session store closes the connection to a passive session store because of a backlog of messages waiting to be sent. After the startup and initial update processes are complete, if the backlog becomes too large, the connection to the passive session store is closed. After the retry interval ends, a new connection is opened.

If the backlog of unsent operations (in bytes) divided by the total size (in bytes) of all live store operations is greater than this number, the connection is closed.

**Value**— Floating point number
**Default**— 1.5
**Editing Level**—Advanced

`minimum-backlog` *`minimum-backlog`*—(Optional) Along with the maximum backlog ratio, specifies when the active session store closes the connection to a passive session store because of a backlog of messages waiting to be sent to the passive session store. After the startup and initial update processes are complete, if the backlog becomes too large, the connection to the passive session store is closed. After the retry interval ends, a new connection is opened.

If the maximum backlog ratio is met, the active session store does not close the connection unless the backlog of messages (in bytes) is greater than this number.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 5000000
**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Advanced

# shared sae configuration driver junos-gx

### Syntax

```
shared sae configuration driver junos-gx {
     sae-community-manager sae-community-manager;
     enable-disconnect-ontimeout;
     concurrent-requests concurrent-requests;
     concurrent-request-timeout concurrent-request-timeout;
     keep-alive-timeout keep-alive-timeout;
     registry-retry-interval registry-retry-interval;
     reply-timeout reply-timeout;
     sequential-message-timeout sequential-message-timeout;
     thread-pool-size thread-pool-size;
     thread-idle-timeout thread-idle-timeout;
}
```

### Hierarchy Level

```
[edit shared sae configuration driver junos-gx]
```

### Release Information

Statement introduced in SRC Release 4.9.0

### Description

Configure the SAE to manage TDF[Gx Interface] devices.

### Alias

junos-gx

### Options

`sae-community-manager` *`sae-community-manager`*— Name of the community manager that manages TDF device communities. Active SAEs are selected from this community.

**Value**— Community name
**Default**— GxCommunityManager
**Editing Level**—Expert

`enable-disconnect-ontimeout`—(Optional) Specifies whether the user session needs to be removed from Router/SRC

**Value**— true or false
**Default**— false
**Editing Level**—Basic

`concurrent-requests` *`concurrent-requests`*—(Optional) Number of unsolicited requests that can be sent concurrently. When this number is exceeded, additional requests (e.g. service activations, deactivations) will wait until a permit becomes available or the request times out.

**Value**—Integer in the range 1–500
**Default**— 100
**Editing Level**—Basic

`concurrent-request-timeout` *`concurrent-request-timeout`*—(Optional) If a request is blocked because the number of concurrent requests is exceeded, it will wait for the specified timeout for a permit to become available. If the timeout is exceeded the request will fail without being sent to the device.

**Value**— Number of seconds in the range 0—900
**Default**— 30
**Editing Level**—Basic

`keep-alive-timeout` *`keep-alive-timeout`*—(Optional) Time to wait before expiring the registry to a Diameter server.

**Value**— Number of seconds
**Default**— 60
**Editing Level**—Basic

`registry-retry-interval` *`registry-retry-interval`*—(Optional) Time to wait before retrying a failed registry to a Diameter server.

**Value**— Number of seconds
**Default**— 30
**Editing Level**—Basic

`reply-timeout` *`reply-timeout`*—(Optional) Time to wait before expiring a request sent to a Diameter server.

**Value**— Number of seconds
**Default**— 25
**Editing Level**—Basic

`sequential-message-timeout` *`sequential-message-timeout`*—(Optional) Time to wait before expiring an expected message.

**Value**— Number of seconds

**Default**— 20
**Editing Level**—Basic

`thread-pool-size` *`thread-pool-size`*—(Optional) Number of working threads that process requests. [Note: These threads will be used for post-sync also. Value should be chosen accordingly]

**Value**— Thread pool size
**Default**— 200
**Editing Level**—Basic

`thread-idle-timeout` *`thread-idle-timeout`*—(Optional) Time to wait before stopping working threads after they become idle.

**Value**— Number of seconds
**Default**— 60
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Normal

# shared sae configuration driver junos-gx charging-server-info

### Syntax

```
shared sae configuration driver junos-gx charging-server-info {
     primary-event-charging-function primary-event-charging-function;
     sec-event-charging-function sec-event-charging-function;
     primary-charging-collection-function primary-charging-collection-function;
     sec-charging-collection-function sec-charging-collection-function;
}
```

### Hierarchy Level

```
[edit shared sae configuration driver junos-gx charging-server-info]
```

### Release Information

Statement introduced in SRC Release 4.9.0

### Description

Charging server information for Gx Driver

### Options

`primary-event-charging-function` *`primary-event-charging-function`*—(Optional) Primary Event Charging Function Name

**Value**— Text
**Default**— No value
**Editing Level**—Normal

`sec-event-charging-function` *`sec-event-charging-function`*—(Optional) Secondary Event Charging Function Name

**Value**— Text
**Default**— No value
**Editing Level**—Normal

`primary-charging-collection-function` *`primary-charging-collection-function`*—(Optional) Primary Event Charging Collection Function Name

**Value**— Text
**Default**— No value
**Editing Level**—Normal

`sec-charging-collection-function` *`sec-charging-collection-function`*—(Optional) Secondary Event Charging Collection Function Name

**Value**— Text
**Default**— No value
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration driver junos-gx session-store

## Syntax

```
shared sae configuration driver junos-gx session-store {
     maximum-queue-age maximum-queue-age;
     maximum-queued-operations maximum-queued-operations;
     maximum-queue-size maximum-queue-size;
     maximum-file-size maximum-file-size;
     minimum-disk-space-usage minimum-disk-space-usage;
     rotation-batch-size rotation-batch-size;
     maximum-session-size maximum-session-size;
     disk-load-buffer-size disk-load-buffer-size;
     network-buffer-size network-buffer-size;
     retry-interval retry-interval;
     communications-timeout communications-timeout;
     load-timeout load-timeout;
     idle-timeout idle-timeout;
     maximum-backlog-ratio maximum-backlog-ratio;
     minimum-backlog minimum-backlog;
}
```

## Hierarchy Level

```
[edit shared sae configuration driver junos-gx session-store]
```

## Release Information

Statement introduced in SRC Release 3.0.0

## Description

Configure the session store for the device driver.

`maximum-queue-age` *`maximum-queue-age`*—(Optional) Maximum age that a queue of buffered store operations (such as adding a session to the store or removing a session from the store) can reach before the queue is written to a session store file.

**Value**— Number of milliseconds in the range 0–2147483647. A value of -1 indicates that there is no limit. A value of zero causes the session store to write each store operation to a session store file immediately.
**Default**— 5000
**Editing Level**—Advanced

`maximum-queued-operations` *`maximum-queued-operations`*—(Optional) Number of buffered store operations that are queued before the queue is written to a session store file.

**Value**— Integer in the range 0–2147483647. A value of -1 indicates that there is no limit. A value of zero causes the session store to write each store operation to a session store file immediately.
**Default**— 50

**Editing Level**—Advanced

`maximum-queue-size` *`maximum-queue-size`*—(Optional) Maximum size that a queue of buffered store operations can reach before the queue is written to a session store file.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 51050
**Editing Level**—Advanced

`maximum-file-size` *`maximum-file-size`*—(Optional) Maximum size of session store files. When a file reaches this size, a new file is created.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 25000000
**Editing Level**—Advanced

`minimum-disk-space-usage` *`minimum-disk-space-usage`*—(Optional) Percentage of space in all session store files that is used by live sessions. When the percentage of space in the session store files that is used by live sessions decreases to this percentage, the oldest session store file is compacted and appended to the newest session store file, and then the oldest session store file is deleted.

**Value**— Percentage of disk space in the range 1–100. We recommend a range of 30-50
**Default**— 25
**Editing Level**—Advanced

`rotation-batch-size` *`rotation-batch-size`*—(Optional) When the oldest session store file is rotated, specifies the number of sessions that are rotated from the oldest file to the newest file at the same time. While a set of sessions is rotated, no other session store activity can take place.

**Value**— Integer in the range 0–2147483647
**Default**— 50
**Editing Level**—Advanced

`maximum-session-size` *`maximum-session-size`*—(Optional) Maximum size of a single subscriber or service session. Use this parameter to reserve memory for an internal buffer.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 10000
**Editing Level**—Advanced

`disk-load-buffer-size` *`disk-load-buffer-size`*—(Optional) Size of the buffer that is used to load all of a session store's files from disk at startup.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 1000000
**Editing Level**—Advanced

`network-buffer-size` *`network-buffer-size`*—(Optional) Size of the buffer that holds messages or message segments that are waiting to be sent to passive session stores

**Value**— Number of bytes in the range 21+ <size of maximum session size field>–2147483647
**Default**— 51050
**Editing Level**—Advanced

`retry-interval` *`retry-interval`*—(Optional) Time interval between attempts by the active session store to connect to missing passive session stores.

**Value**— Number of milliseconds in the range 0–2147483647
**Default**— 5000
**Editing Level**—Advanced

`communications-timeout` *`communications-timeout`*—(Optional) Amount of time in milliseconds that a session store waits before closing when it is blocked from reading or writing a message. This timeout does not apply when a session store is waiting for a remote session store to load its state from disk. (A non-positive number means wait forever. This is not recommended.)

**Value**— Number of milliseconds
**Default**— 60000
**Editing Level**—Advanced

`load-timeout` *`load-timeout`*—(Optional) Amount of time in milliseconds that an active session store waits for a passive session store or a passive session store waits for an active session store to load its data from disk before it closes the connection to the session store. (A non-positive number means wait forever. This is not recommended.)

**Value**— Number of milliseconds
**Default**— 420000
**Editing Level**—Advanced

`idle-timeout` *`idle-timeout`*—(Optional) Amount of time that a passive session store

waits for activity from the active session store before it closes the connection to the active session store. This timeout applies after the session store startup and initial update processes are complete.

**Value**— Number of milliseconds in the range 0–2147483647
**Default**— 3600000
**Editing Level**—Advanced

`maximum-backlog-ratio` *`maximum-backlog-ratio`*—(Optional) Along with the minimum backlog size, specifies when the active session store closes the connection to a passive session store because of a backlog of messages waiting to be sent. After the startup and initial update processes are complete, if the backlog becomes too large, the connection to the passive session store is closed. After the retry interval ends, a new connection is opened.

If the backlog of unsent operations (in bytes) divided by the total size (in bytes) of all live store operations is greater than this number, the connection is closed.

**Value**— Floating point number
**Default**— 1.5
**Editing Level**—Advanced

`minimum-backlog` *`minimum-backlog`*—(Optional) Along with the maximum backlog ratio, specifies when the active session store closes the connection to a passive session store because of a backlog of messages waiting to be sent to the passive session store. After the startup and initial update processes are complete, if the backlog becomes too large, the connection to the passive session store is closed. After the retry interval ends, a new connection is opened.

If the maximum backlog ratio is met, the active session store does not close the connection unless the backlog of messages (in bytes) is greater than this number.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 5000000
**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Advanced

# shared sae configuration driver junos-ise

## Syntax

```
shared sae configuration driver junos-ise {
     sae-community-manager sae-community-manager;
     cached-driver-expiration cached-driver-expiration;
     enable-disconnect-ontimeout;
     delay-service-policy-provisioning delay-service-policy-provisioning;
     sync-from-sessionstore;
     ignore-framed-ip-netmask;
     aggregate-accounting-stats;
     ignore-framed-ipv6-netmask;
     sync-count-wait-timeout sync-count-wait-timeout;
     concurrent-post-sync-jobs concurrent-post-sync-jobs;
     concurrent-requests concurrent-requests;
     concurrent-request-timeout concurrent-request-timeout;
     pending-acrs-strs-wait-time pending-acrs-strs-wait-time;
     keep-alive-timeout keep-alive-timeout;
     registry-retry-interval registry-retry-interval;
     reply-timeout reply-timeout;
     sequential-message-timeout sequential-message-timeout;
     thread-pool-size thread-pool-size;
     thread-idle-timeout thread-idle-timeout;
}
```

## Hierarchy Level

```
[edit shared sae configuration driver junos-ise]
```

## Release Information

Statement introduced in SRC Release 3.2.0

## Description

Configure the SAE to manage ISE devices.

## Alias

intelligent-service-edge

## Options

`sae-community-manager` *`sae-community-manager`*— Name of the community manager that manages ISE device communities. Active SAEs are selected from this community.

**Value**— Community name
**Default**— ISECommunityManager
**Editing Level**—Expert

`cached-driver-expiration` *`cached-driver-expiration`*— Minimum amount of time to keep the state of a router driver after its Diameter connection is closed. You might want to change this value because the SAE can resynchronize more quickly if most of the state is

still in memory and it does not need to be reread from the disk.

**Value**— Number of seconds in the range 0–2147483647
**Default**— 600
**Editing Level**—Advanced

`enable-disconnect-ontimeout`—(Optional) Specifies whether the user session needs to be removed from Router/SRC

**Value**— true or false
**Default**— false
**Editing Level**—Basic

`delay-service-policy-provisioning` *`delay-service-policy-provisioning`*—(Optional) Amount of time by which the scheduler tasks would be delayed after user login is completed. This parameter is added to delay the activation of services done via PPRs..

**Value**— Number of milliseconds in the range 0–9223372036854775807. The recommended range is 0-1000 milliseconds
**Default**— 0
**Editing Level**—Basic

`sync-from-sessionstore`—(Optional) Synchronization mode which indicates whether to sync from router or from session-store. If set to "true" synchronization will be done giving precedence to data in session-store and not at the router. By default SAE will sync from the router

**Default**— Disabled
**Editing Level**—Expert

`ignore-framed-ip-netmask`—(Optional) Flag defined to ignore the Framed-IP-Mask AVP to allow IP based filtering without considering the framed IP netmask

**Default**— Disabled
**Editing Level**—Expert

`aggregate-accounting-stats`—(Optional) Flag defined to aggregate the ipv4 and ipv6 accounting stats received from MX and send it to plug-ins in existing attributes (in-octets, out-octets, in-packets, out-packets). Note: Irrespective of this flag, accounting will be always aggregated while sending to VTA.

**Default**— Disabled
**Editing Level**—Expert

`ignore-framed-ipv6-netmask`—(Optional) Flag defined to ignore the Framed-IPv6-Netmask AVP to allow IPv6 address based filtering without considering the framed IPv6 netmask

**Default**— Disabled
**Editing Level**—Expert

`sync-count-wait-timeout` *`sync-count-wait-timeout`*—(Optional) Interval after which SAE would stop waiting for the sync AARs and would trigger unsolicited synchronization.

**Value**— Number of seconds in the range 0\u20132147483647
**Default**— 2
**Editing Level**—Basic

`concurrent-post-sync-jobs` *`concurrent-post-sync-jobs`*—(Optional) Number of threads that can process post sync jobs to login subscriber sessions that are incomplete after synchronizing state with the router. [Note: Contact Juniper Technical Assistance Center (JTAC) before tampering the value]

**Value**—Integer in the range 10–50
**Default**— 20
**Editing Level**—Basic

`concurrent-requests` *`concurrent-requests`*—(Optional) Number of unsolicited requests that can be sent concurrently. When this number is exceeded, additional requests (e.g. service activations, deactivations) will wait until a permit becomes available or the request times out.

**Value**—Integer in the range 1–500
**Default**— 100
**Editing Level**—Basic

`concurrent-request-timeout` *`concurrent-request-timeout`*—(Optional) If a request is blocked because the number of concurrent requests is exceeded, it will wait for the specified timeout for a permit to become available. If the timeout is exceeded the request will fail without being sent to the device.

**Value**— Number of seconds in the range 0—900
**Default**— 30
**Editing Level**—Basic

`pending-acrs-strs-wait-time` *`pending-acrs-strs-wait-time`*—(Optional) The maximum time the driver in Operational state waits for user restoration completion to start processing pending ACRs and STRs.

**Value**— Number of seconds in the range 600—18000
**Default**— 3600
**Editing Level**—Basic

`keep-alive-timeout` *`keep-alive-timeout`*—(Optional) Time to wait before expiring the registry to a Diameter server.

**Value**— Number of seconds
**Default**— 60
**Editing Level**—Basic

`registry-retry-interval` *`registry-retry-interval`*—(Optional) Time to wait before retrying a failed registry to a Diameter server.

**Value**— Number of seconds
**Default**— 30
**Editing Level**—Basic

`reply-timeout` *`reply-timeout`*—(Optional) Time to wait before expiring a request sent to a Diameter server.

**Value**— Number of seconds
**Default**— 25
**Editing Level**—Basic

`sequential-message-timeout` *`sequential-message-timeout`*—(Optional) Time to wait before expiring an expected message.

**Value**— Number of seconds
**Default**— 20
**Editing Level**—Basic

`thread-pool-size` *`thread-pool-size`*—(Optional) Number of working threads that process requests. [Note: These threads will be used for post-sync also. Value should be chosen accordingly]

**Value**— Thread pool size
**Default**— 200
**Editing Level**—Basic

`thread-idle-timeout` *`thread-idle-timeout`*—(Optional) Time to wait before stopping working threads after they become idle.

**Value**— Number of seconds
**Default**— 60
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Normal

# shared sae configuration driver junos-ise pool-retrieval

### Syntax

```
shared sae configuration driver junos-ise pool-retrieval {
     junos-protocol (ssh | telnet);
     junos-login-name junos-login-name;
     junos-password junos-password;
     netconf-port netconf-port;
     key-file-name key-file-name;
}
```

### Hierarchy Level

```
[edit shared sae configuration driver junos-ise pool-retrieval]
```

### Release Information

Statement introduced in SRC Release 3.2.0

### Options

`junos-protocol (ssh | telnet)`— Underlying communication protocol to all "junos-ise" devices, supported protocols are SSH or Telnet

**Value**

- `ssh`— Establishes the connection using SSHv2 Protocol
- `telnet`— Establishes the connection using telnet Protocol

**Editing Level**—Basic

`junos-login-name` *`junos-login-name`*— Username used to connect to all "junos-ise" devices

**Value**—Text
**Editing Level**—Basic

`junos-password` *`junos-password`*—(Optional) Password used to connect to all "junos-ise" devices

**Value**—Secret text
**Editing Level**—Basic

`netconf-port` *`netconf-port`*—(Optional) NETCONF port for communication, default value is 830 for SSH and 23 for telnet

**Value**—Integer in the range 1–65535
**Default**— No value
**Editing Level**—Basic

`key-file-name` *`key-file-name`*—(Optional) SSH key File name used for key based authentication

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Expert

# shared sae configuration driver junos-ise session-store

### Syntax

```
shared sae configuration driver junos-ise session-store {
     maximum-queue-age maximum-queue-age;
     maximum-queued-operations maximum-queued-operations;
     maximum-queue-size maximum-queue-size;
     maximum-file-size maximum-file-size;
     minimum-disk-space-usage minimum-disk-space-usage;
     rotation-batch-size rotation-batch-size;
     maximum-session-size maximum-session-size;
     disk-load-buffer-size disk-load-buffer-size;
     network-buffer-size network-buffer-size;
     retry-interval retry-interval;
     communications-timeout communications-timeout;
     load-timeout load-timeout;
     idle-timeout idle-timeout;
     maximum-backlog-ratio maximum-backlog-ratio;
     minimum-backlog minimum-backlog;
}
```

### Hierarchy Level

```
[edit shared sae configuration driver junos-ise session-store]
```

### Release Information

Statement introduced in SRC Release 3.0.0

### Description

Configure the session store for the device driver.

`maximum-queue-age` *`maximum-queue-age`*—(Optional) Maximum age that a queue of buffered store operations (such as adding a session to the store or removing a session from the store) can reach before the queue is written to a session store file.

**Value**— Number of milliseconds in the range 0–2147483647. A value of -1 indicates that there is no limit. A value of zero causes the session store to write each store operation to a session store file immediately.
**Default**— 5000
**Editing Level**—Advanced

`maximum-queued-operations` *`maximum-queued-operations`*—(Optional) Number of buffered store operations that are queued before the queue is written to a session store file.

**Value**— Integer in the range 0–2147483647. A value of -1 indicates that there is no limit. A value of zero causes the session store to write each store operation to a session store file immediately.
**Default**— 50

**Editing Level**—Advanced

`maximum-queue-size` *`maximum-queue-size`*—(Optional) Maximum size that a queue of buffered store operations can reach before the queue is written to a session store file.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 51050
**Editing Level**—Advanced

`maximum-file-size` *`maximum-file-size`*—(Optional) Maximum size of session store files. When a file reaches this size, a new file is created.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 25000000
**Editing Level**—Advanced

`minimum-disk-space-usage` *`minimum-disk-space-usage`*—(Optional) Percentage of space in all session store files that is used by live sessions. When the percentage of space in the session store files that is used by live sessions decreases to this percentage, the oldest session store file is compacted and appended to the newest session store file, and then the oldest session store file is deleted.

**Value**— Percentage of disk space in the range 1–100. We recommend a range of 30-50
**Default**— 25
**Editing Level**—Advanced

`rotation-batch-size` *`rotation-batch-size`*—(Optional) When the oldest session store file is rotated, specifies the number of sessions that are rotated from the oldest file to the newest file at the same time. While a set of sessions is rotated, no other session store activity can take place.

**Value**— Integer in the range 0–2147483647
**Default**— 50
**Editing Level**—Advanced

`maximum-session-size` *`maximum-session-size`*—(Optional) Maximum size of a single subscriber or service session. Use this parameter to reserve memory for an internal buffer.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 10000
**Editing Level**—Advanced

`disk-load-buffer-size` *`disk-load-buffer-size`*—(Optional) Size of the buffer that is used to load all of a session store's files from disk at startup.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 1000000
**Editing Level**—Advanced

`network-buffer-size` *`network-buffer-size`*—(Optional) Size of the buffer that holds messages or message segments that are waiting to be sent to passive session stores

**Value**— Number of bytes in the range 21+ <size of maximum session size field>–2147483647
**Default**— 51050
**Editing Level**—Advanced

`retry-interval` *`retry-interval`*—(Optional) Time interval between attempts by the active session store to connect to missing passive session stores.

**Value**— Number of milliseconds in the range 0–2147483647
**Default**— 5000
**Editing Level**—Advanced

`communications-timeout` *`communications-timeout`*—(Optional) Amount of time in milliseconds that a session store waits before closing when it is blocked from reading or writing a message. This timeout does not apply when a session store is waiting for a remote session store to load its state from disk. (A non-positive number means wait forever. This is not recommended.)

**Value**— Number of milliseconds
**Default**— 60000
**Editing Level**—Advanced

`load-timeout` *`load-timeout`*—(Optional) Amount of time in milliseconds that an active session store waits for a passive session store or a passive session store waits for an active session store to load its data from disk before it closes the connection to the session store. (A non-positive number means wait forever. This is not recommended.)

**Value**— Number of milliseconds
**Default**— 420000
**Editing Level**—Advanced

`idle-timeout` *`idle-timeout`*—(Optional) Amount of time that a passive session store

waits for activity from the active session store before it closes the connection to the active session store. This timeout applies after the session store startup and initial update processes are complete.

**Value**— Number of milliseconds in the range 0–2147483647
**Default**— 3600000
**Editing Level**—Advanced

`maximum-backlog-ratio` *`maximum-backlog-ratio`*—(Optional) Along with the minimum backlog size, specifies when the active session store closes the connection to a passive session store because of a backlog of messages waiting to be sent. After the startup and initial update processes are complete, if the backlog becomes too large, the connection to the passive session store is closed. After the retry interval ends, a new connection is opened.

If the backlog of unsent operations (in bytes) divided by the total size (in bytes) of all live store operations is greater than this number, the connection is closed.

**Value**— Floating point number
**Default**— 1.5
**Editing Level**—Advanced

`minimum-backlog` *`minimum-backlog`*—(Optional) Along with the maximum backlog ratio, specifies when the active session store closes the connection to a passive session store because of a backlog of messages waiting to be sent to the passive session store. After the startup and initial update processes are complete, if the backlog becomes too large, the connection to the passive session store is closed. After the retry interval ends, a new connection is opened.

If the maximum backlog ratio is met, the active session store does not close the connection unless the backlog of messages (in bytes) is greater than this number.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 5000000
**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Advanced

# shared sae configuration driver junos

### Syntax

```
shared sae configuration driver junos {
     beep-server-port beep-server-port;
     tls-beep-server-port tls-beep-server-port;
     connection-attempts connection-attempts;
     keepalive-interval keepalive-interval;
     message-timeout message-timeout;
     batch-size batch-size;
     transaction-batch-time transaction-batch-time;
     sdx-group-name sdx-group-name;
     sdx-session-group-name sdx-session-group-name;
     send-commit-check send-commit-check;
}
```

### Hierarchy Level

```
[edit shared sae configuration driver junos]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure the SAE to manage JUNOS routing platforms. A JUNOS routing platform interacts with the SAE by using a JUNOS software process called sdxd. When the sdxd process establishes a TCP/IP connection to the SAE, the SAE begins to manage the router. The JUNOS router driver configuration defines parameters related to the interactions between the SAE and the sdxd process.

`beep-server-port` *`beep-server-port`*— TCP port number that is used to communicate with the sdxd process on JUNOS routing platforms. This port number must match the port number configured in the sdxd process on the router.

**Value**— TCP port number; if this value is set to zero and the TLS BEEP server port is set, the SAE accepts only TLS connections.

If you change this port number, you need to restart the SAE before the change takes effect.

**Default**— 3333
**Editing Level**—Advanced

`tls-beep-server-port` *`tls-beep-server-port`*— TCP port number used to communicate with the sdxd process on JUNOS routing platforms using a secure TLS connection.

**Value**— TLS port number; if this value is set to zero, the SAE does not accept TLS connections.

If you change this port number, you need to restart the SAE before the change takes effect.

**Default**— 3434
**Editing Level**—Advanced

`connection-attempts` *`connection-attempts`*— Number of outstanding connection attempts before the SAE starts dropping new connection attempts.

**Value**— Positive value greater than 0; if the value is equal to or less than 0, the default value is used.
**Default**— 50
**Editing Level**—Advanced

`keepalive-interval` *`keepalive-interval`*— Interval between keepalive messages sent from the router. The sdxd process on the router monitors the connection to the SAE by sending keepalive messages at one-third the specified interval. If the sdxd process does not receive the expected keepalive answer within the specified timeout, it closes the connection.

A short interval results in a high load on the BEEP interface.

A long interval results in a long time before a connection failure is detected.

**Value**— Number of seconds in the range 0-2147483647. A value of 0 means that timeout is disabled.
**Default**— 45
**Editing Level**—Advanced

`message-timeout` *`message-timeout`*— Amount of time that the router driver waits for a response from the sdxd process. Under a high load the router may not be able to respond fast enough to requests.

Change this value only if a high number of timeout events appear in the error log.

**Value**— Number of milliseconds in the range 0–2147483647
**Default**— 30000
**Editing Level**—Advanced

`batch-size` *`batch-size`*— Minimum number of service configuration transactions that are committed at the same time. If any of the transactions in a batch fails, all transactions are aborted, and the associated service activations or deactivations fail.

To control maximum latency for a job when services are activated in parallel, specify 120% of the number of CORBA threads as the batch size.

**Value**— Integer in the range 0–2147483647
**Default**— 10
**Editing Level**—Advanced

`transaction-batch-time` *`transaction-batch-time`*— Maximum time to collect configuration transactions in a batch. The batch is completed if either the batch size or the batch time is reached.

The completion time is calculated from the creation of a batch. Note that the batch time is a function of the total configuration size and not of the number of commands in the configuration transactions.

**Value**— Number of milliseconds in the range 0–2147483647
**Default**— 2000
**Editing Level**—Advanced

`sdx-group-name` *`sdx-group-name`*— Name of group on the JUNOS routing platform in which provisioning objects are stored.

**Value**— Name configured on the JUNOS routing platform
**Default**— sdx
**Editing Level**—Advanced

`sdx-session-group-name` *`sdx-session-group-name`*— Name of group on the JUNOS routing platform in which session objects are stored.

**Value**— Name configured on the JUNOS routing platform
**Default**— sdx-sessions
**Editing Level**—Advanced

`send-commit-check` *`send-commit-check`*— Enables or disables commit check. If enabled, a more detailed error message is logged if a batch fails, which lets you verify individual transactions in a batch.

To maximize service activation performance, commit check should be disabled.

**Value**— true or false
**Default**— true
**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Normal

# shared sae configuration driver junos configuration-checking

### Syntax

```
shared sae configuration driver junos configuration-checking {
     configuration-checking-schedule configuration-checking-schedule;
     configuration-checking-action (enforce | synchronize | detect);
}
```

### Hierarchy Level

```
[edit shared sae configuration driver junos configuration-checking]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure the SAE to periodically check the configuration of the JUNOS routing platform.

### Options

`configuration-checking-schedule` *`configuration-checking-schedule`*—(Optional) Specifies when the SAE checks the router configuration.

**Value**— The schedule format is modeled on the UNIX crontab Entry Format (see UNIX crontab man pages). It consists of seven fields separated by space or tabs and enclosed in double quotation marks. The fields specify:

- Minute (0-59)
- Hour (0-23)
- Day of month (1-31, or the first three letters of the day of month)
- Month of the year (1-12)
- Day of the week (0-6 with 0=Sunday, or the first three letters of the name of the day)
- Year (4 digits indicating the year)
- Time Zone ID: An * indicates the SAE local time zone.

For custom time zones, specify the format:

- zone = "GMT" ("+" | "-") (hour : minute | hour minute | hour)
- hour = digit digit
- minute = digit digit
- digit = 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

Use the following guidelines when configuring the schedule:

- An asterisk (*) is interpreted as 0 for minutes and hours and as the SAE

local time zone for time zone. For all other fields, it stands for "first-last."
- Ranges of numbers and names are allowed. Ranges are two values separated with a hyphen. The specified range is inclusive. For example, 1–5 for the hour field specifies checking at hours 1, 2, 3, 4, and 5.
- Lists are allowed. A list is a set of numbers (or ranges) separated by commas. For example: "1,2,5,9", "0-4,8-12".
- Step values can be used with ranges. Following a range with "/<number>" specifies skips in the number's value through the range. For example, "0-23/2" in the hours field specifies event execution every other hour. Steps are also permitted after an asterisk, so "*/2" specifies every 2 hours.
- When determining the next event time based on a specific time pattern, the following rules apply: Seconds and milliseconds are ignored (that is, rounded up to the closest minute). If you set both a day of the month and a day of the week, only the day of month is used.

**Default**— No value
**Editing Level**—Advanced

`configuration-checking-action (enforce | synchronize | detect)`—(Optional) Action that the SAE takes when it detects disparities between the configuration of the SAE and the configuration on the router.

**Value**— One of the following:

- detect—Reports disparities through the SAE router driver event trap called routerConfOutOfSynch and through the info log. The SAE does not make any changes on the router.
- enforce—Enforces the state of the session layer on the router. The SAE removes all sessions that have disparities and creates new sessions with the same activation parameters as the original ones
- synchronize—Synchronizes the state of the session layer on the router. The SAE removes all sessions that have disparities.

**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Advanced

# shared sae configuration driver junos lsp-tracking

### Syntax

```
shared sae configuration driver junos lsp-tracking {
     match match;
     file file;
}
```

### Hierarchy Level

```
[edit shared sae configuration driver junos lsp-tracking]
```

### Release Information

Statement introduced in SRC Release 3.0.0

### Description

Configure event tracking for JUNOS LSPs to provide information to an application, such as the sample IPTV application, that needs information about LSP status.

LSP tracking can configure the system log on managed JUNOS routing platforms to send notification messages to the managing SAE when LSPs are created and removed, and when bandwidth allocation for an LSP changes.

### Options

`match` *`match`*—(Optional) A regular expression to identify a set of LSP names. If you do not define an expression, the SAE tracks all LSPs.

**Value**— Regular expression
**Default**— No value
**Editing Level**—Basic

`file` *`file`*—(Optional) Name of the file to store syslog event messages (that provide information about LSP state changes in a JUNOS routing platform).

**Value**— Filename
**Default**— mpls4sae
**Editing Level**—Expert

### Required Privilege Level

system system

## Required Editing Level

Normal

# shared sae configuration driver junos security

### Syntax

```
shared sae configuration driver junos security {
     need-client-authentication;
     local-certificate local-certificate;
}
```

### Hierarchy Level

```
[edit shared sae configuration driver junos security]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure Transport Layer Security (TLS) on the SAE.

`need-client-authentication`—(Optional) Enables or disables whether or not the SAE requests a client certificate from the router

If enabled, the SAE asks the router for a client certificate when a connection to the router is established.

If disabled, the SAE does not ask the router for a client certificate when a connection to the router is established.

**Default**— Enabled
**Editing Level**—Normal

`local-certificate` *`local-certificate`*—(Optional) Name of certificate to be used for TLS communications

**Value**— Name of certificate
**Default**— No value
**Editing Level**—Normal

### Required Privilege Level

system

### Required Editing Level

Advanced

# shared sae configuration driver junos session-store

### Syntax

```
shared sae configuration driver junos session-store {
     maximum-queue-age maximum-queue-age;
     maximum-queued-operations maximum-queued-operations;
     maximum-queue-size maximum-queue-size;
     maximum-file-size maximum-file-size;
     minimum-disk-space-usage minimum-disk-space-usage;
     rotation-batch-size rotation-batch-size;
     maximum-session-size maximum-session-size;
     disk-load-buffer-size disk-load-buffer-size;
     network-buffer-size network-buffer-size;
     retry-interval retry-interval;
     communications-timeout communications-timeout;
     load-timeout load-timeout;
     idle-timeout idle-timeout;
     maximum-backlog-ratio maximum-backlog-ratio;
     minimum-backlog minimum-backlog;
}
```

### Hierarchy Level

```
[edit shared sae configuration driver junos session-store]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure the session store for the JUNOS driver.

`maximum-queue-age` *`maximum-queue-age`*—(Optional) Maximum age that a queue of buffered store operations (such as adding a session to the store or removing a session from the store) can reach before the queue is written to a session store file.

**Value**— Number of milliseconds in the range 0–2147483647. A value of -1 indicates that there is no limit. A value of zero causes the session store to write each store operation to a session store file immediately.
**Default**— 5000
**Editing Level**—Advanced

`maximum-queued-operations` *`maximum-queued-operations`*—(Optional) Number of buffered store operations that are queued before the queue is written to a session store file.

**Value**— Integer in the range 0–2147483647. A value of -1 indicates that there is no limit. A value of zero causes the session store to write each store operation to a session store file immediately.
**Default**— 50

**Editing Level**—Advanced

`maximum-queue-size` *`maximum-queue-size`*—(Optional) Maximum size that a queue of buffered store operations can reach before the queue is written to a session store file.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 51050
**Editing Level**—Advanced

`maximum-file-size` *`maximum-file-size`*—(Optional) Maximum size of session store files. When a file reaches this size, a new file is created.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 25000000
**Editing Level**—Advanced

`minimum-disk-space-usage` *`minimum-disk-space-usage`*—(Optional) Percentage of space in all session store files that is used by live sessions. When the percentage of space in the session store files that is used by live sessions decreases to this percentage, the oldest session store file is compacted and appended to the newest session store file, and then the oldest session store file is deleted.

**Value**— Percentage of disk space in the range 1–100. We recommend a range of 30-50
**Default**— 25
**Editing Level**—Advanced

`rotation-batch-size` *`rotation-batch-size`*—(Optional) When the oldest session store file is rotated, specifies the number of sessions that are rotated from the oldest file to the newest file at the same time. While a set of sessions is rotated, no other session store activity can take place.

**Value**— Integer in the range 0–2147483647
**Default**— 50
**Editing Level**—Advanced

`maximum-session-size` *`maximum-session-size`*—(Optional) Maximum size of a single subscriber or service session. Use this parameter to reserve memory for an internal buffer.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 10000
**Editing Level**—Advanced

`disk-load-buffer-size` *`disk-load-buffer-size`*—(Optional) Size of the buffer that is used to load all of a session store's files from disk at startup.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 1000000
**Editing Level**—Advanced

`network-buffer-size` *`network-buffer-size`*—(Optional) Size of the buffer that holds messages or message segments that are waiting to be sent to passive session stores

**Value**— Number of bytes in the range 21+ <size of maximum session size field>–2147483647
**Default**— 51050
**Editing Level**—Advanced

`retry-interval` *`retry-interval`*—(Optional) Time interval between attempts by the active session store to connect to missing passive session stores.

**Value**— Number of milliseconds in the range 0–2147483647
**Default**— 5000
**Editing Level**—Advanced

`communications-timeout` *`communications-timeout`*—(Optional) Amount of time in milliseconds that a session store waits before closing when it is blocked from reading or writing a message. This timeout does not apply when a session store is waiting for a remote session store to load its state from disk. (A non-positive number means wait forever. This is not recommended.)

**Value**— Number of milliseconds
**Default**— 60000
**Editing Level**—Advanced

`load-timeout` *`load-timeout`*—(Optional) Amount of time in milliseconds that an active session store waits for a passive session store or a passive session store waits for an active session store to load its data from disk before it closes the connection to the session store. (A non-positive number means wait forever. This is not recommended.)

**Value**— Number of milliseconds
**Default**— 420000
**Editing Level**—Advanced

`idle-timeout` *`idle-timeout`*—(Optional) Amount of time that a passive session store

waits for activity from the active session store before it closes the connection to the active session store. This timeout applies after the session store startup and initial update processes are complete.

**Value**— Number of milliseconds in the range 0–2147483647
**Default**— 3600000
**Editing Level**—Advanced

`maximum-backlog-ratio` *`maximum-backlog-ratio`*—(Optional) Along with the minimum backlog size, specifies when the active session store closes the connection to a passive session store because of a backlog of messages waiting to be sent. After the startup and initial update processes are complete, if the backlog becomes too large, the connection to the passive session store is closed. After the retry interval ends, a new connection is opened.

If the backlog of unsent operations (in bytes) divided by the total size (in bytes) of all live store operations is greater than this number, the connection is closed.

**Value**— Floating point number
**Default**— 1.5
**Editing Level**—Advanced

`minimum-backlog` *`minimum-backlog`*—(Optional) Along with the maximum backlog ratio, specifies when the active session store closes the connection to a passive session store because of a backlog of messages waiting to be sent to the passive session store. After the startup and initial update processes are complete, if the backlog becomes too large, the connection to the passive session store is closed. After the retry interval ends, a new connection is opened.

If the maximum backlog ratio is met, the active session store does not close the connection unless the backlog of messages (in bytes) is greater than this number.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 5000000
**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Advanced

# shared sae configuration driver junose

## Syntax

```
shared sae configuration driver junose {
     cops-server-port cops-server-port;
     backlog backlog;
     keepalive-interval keepalive-interval;
     message-timeout message-timeout;
     replication-message-timeout replication-message-timeout;
     cops-message-maximum-length cops-message-maximum-length;
     cops-message-read-buffer-size cops-message-read-buffer-size;
     cops-message-write-buffer-size cops-message-write-buffer-size;
     pending-address-timeout pending-address-timeout;
     cops-handler-threads cops-handler-threads;
     cached-driver-expiration cached-driver-expiration;
     drop-unmanaged-interfaces-xdr-driver;
     track-unmanaged-interfaces-xdr-driver;
     prefer-second-ip-address;
     dual-stack-delay dual-stack-delay;
     accounting-per-attachment;
}
```

## Hierarchy Level

```
[edit shared sae configuration driver junose]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure the SAE to manage JUNOSe routers. The router driver specifies the COPS connection between the SAE COPS server and the COPS client in the JUNOSe router.

`cops-server-port` *`cops-server-port`*— TCP port number of the COPS server used to communicate with the JUNOSe routers.

**Value**— Port number that matches the configuration of the SRC client in the JUNOSe router.
**Default**— 3288
**Editing Level**—Advanced

`backlog` *`backlog`*— Maximum number of outstanding connection attempts before connections are dropped.

**Value**— Integer
**Default**— 50
**Editing Level**—Advanced

`keepalive-interval` *`keepalive-interval`*— Interval between keepalive messages sent

from the COPS client (the JUNOSe router). The COPS client monitors the COPS connection by sending keepalive messages at random intervals between one-fourth and three-fourths of the specified interval. If the client does not receive the expected keepalive answer within the specified timeout, the client terminates the connection.

A short interval results in a high load on the COPS interface.

A long interval results in a long time before a COPS failure is detected.

**Value**— Number of seconds in the range 0-32768. A value of 0 means that timeout is disabled.
**Default**— 45
**Editing Level**—Advanced

`message-timeout` *`message-timeout`*— Timeout interval in which the COPS server waits for a response to COPS requests. Under a high load the router may not be able to respond fast enough to COPS requests. Change this value only if a high number of COPS timeout events appear in the error log.

**Value**— Number of milliseconds
**Default**— 120000
**Editing Level**—Advanced

`replication-message-timeout` *`replication-message-timeout`*— Timeout interval in which the active SAE waits for a response to synchronization requests. Under a high load the router may not be able to respond fast enough to COPS requests. Change this value if Reliable Replication Mode can't be triggered.

**Value**— Number of milliseconds
**Default**— 5000
**Editing Level**—Advanced

`cops-message-maximum-length` *`cops-message-maximum-length`*— Maximum length of a COPS message. We recommend that you use the default setting.

**Value**— Number of bytes in the range 4 bytes to 2 GB
**Default**— 200000
**Editing Level**—Advanced

`cops-message-read-buffer-size` *`cops-message-read-buffer-size`*— Buffer size for receiving COPS messages from the JUNOSe client. We recommend that you use the default setting unless you are instructed to change it by Juniper Networks engineers.

**Value**— Number of bytes in the range 4 bytes to 2 GB
**Default**— 30000

**Editing Level**—Advanced

`cops-message-write-buffer-size` *`cops-message-write-buffer-size`*— Buffer size for sending COPS messages to the JUNOSe client. We recommend that you use the default setting unless you are instructed to change it by Juniper Networks engineers.

**Value**— Number of bytes in the range 4 bytes to 2 GB
**Default**— 30000
**Editing Level**—Advanced

`pending-address-timeout` *`pending-address-timeout`*— Maximum time that a DHCP address request remains pending.

**Value**— Number of milliseconds. Typical values are in the range 1000-15000 (1 second to 15 seconds).
**Default**— 5000
**Editing Level**—Advanced

`cops-handler-threads` *`cops-handler-threads`*—(Optional) Size of the thread pool for handling unsolicited messages. These threads are shared among all JUNOSe router drivers You may want to set this value higher than the default if you wish to create greater throughput on platforms with multiple processing cores, and you are not achieving full processor resource utilization. Increasing the number of threads increases the ability to use multiple processing cores in parallel.

**Value**— Number of threads
**Default**— No value
**Editing Level**—Advanced

`cached-driver-expiration` *`cached-driver-expiration`*— Minimum amount of time to keep the state of a router driver after its COPS connection is closed. You might want to change this value because the SAE can resynchronize more quickly if most of the state is still in memory and it does not need to be reread from the disk.

**Value**— Number of seconds in the range 0–2147483647
**Default**— 600
**Editing Level**—Advanced

`drop-unmanaged-interfaces-xdr-driver`—(Optional) For JUNOSe COPS-XDR drivers, enables or disables the driver to keep a record of unmanaged interfaces. You must enable this option if you have unmanaged dynamic interfaces in a virtual router that is managed by COPS-XDR. If the driver does not keep a record of unmanaged interfaces, next-interface actions in policies may not work properly in certain cases. To use RAM more efficiently,

enable this option if you have a large number of unmangaged interfaces that are not the target of next-hop polices.

Advanced

**Default**— Disabled
**Editing Level**—Expert

`track-unmanaged-interfaces-xdr-driver`—(Optional) Enables sending of interface tracking events for unmanaged interfaces of the XDR router driver. Because the COPS-XDR protocol does not include notifications (DRQs) when unmanaged interfaces are disabled, plug-ins will not receive an unmanaged interface's stop events.

**Default**— Disabled
**Editing Level**—Expert

`prefer-second-ip-address`—(Optional) When this option is set, a request for a second session will cause an existing session to be terminated.

**Default**— Disabled
**Editing Level**—Expert

`dual-stack-delay` *`dual-stack-delay`*—(Optional) If configured SAE will wait after receiving a REQ for a new interface before sending the interface plug-in event and attempting to login a UserSession.
NOTE: configuring this attribute to a value different than 0 will lower the login rate for single-stack interfaces.

**Value**—Integer in the range 0–10000 ms
**Default**— 0
**Editing Level**—Basic

`accounting-per-attachment`—(Optional) This flag is used for JUNOSe devices only.If the attribute accounting-per-attachment is set then attachment accounting will be calculated . If the attribute no-accounting-per-attachment is set then attachment accounting will be always set to false. If both the attributes accounting-per-attachment and no-accounting-per-attachment are not set then attachment accounting will be always set to true.

**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Advanced

# shared sae configuration driver junose session-store

## Syntax

```
shared sae configuration driver junose session-store {
     maximum-queue-age maximum-queue-age;
     maximum-queued-operations maximum-queued-operations;
     maximum-queue-size maximum-queue-size;
     maximum-file-size maximum-file-size;
     minimum-disk-space-usage minimum-disk-space-usage;
     rotation-batch-size rotation-batch-size;
     maximum-session-size maximum-session-size;
     disk-load-buffer-size disk-load-buffer-size;
     network-buffer-size network-buffer-size;
     retry-interval retry-interval;
     communications-timeout communications-timeout;
     load-timeout load-timeout;
     idle-timeout idle-timeout;
     maximum-backlog-ratio maximum-backlog-ratio;
     minimum-backlog minimum-backlog;
}
```

## Hierarchy Level

```
[edit shared sae configuration driver junose session-store]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure the session store for the JUNOSe driver.

`maximum-queue-age` *`maximum-queue-age`*—(Optional) Maximum age that a queue of buffered store operations (such as adding a session to the store or removing a session from the store) can reach before the queue is written to a session store file.

**Value**— Number of milliseconds in the range 0–2147483647. A value of -1 indicates that there is no limit. A value of zero causes the session store to write each store operation to a session store file immediately.
**Default**— 5000
**Editing Level**—Advanced

`maximum-queued-operations` *`maximum-queued-operations`*—(Optional) Number of buffered store operations that are queued before the queue is written to a session store file.

**Value**— Integer in the range 0–2147483647. A value of -1 indicates that there is no limit. A value of zero causes the session store to write each store operation to a session store file immediately.
**Default**— 50

**Editing Level**—Advanced

`maximum-queue-size` *`maximum-queue-size`*—(Optional) Maximum size that a queue of buffered store operations can reach before the queue is written to a session store file.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 51050
**Editing Level**—Advanced

`maximum-file-size` *`maximum-file-size`*—(Optional) Maximum size of session store files. When a file reaches this size, a new file is created.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 25000000
**Editing Level**—Advanced

`minimum-disk-space-usage` *`minimum-disk-space-usage`*—(Optional) Percentage of space in all session store files that is used by live sessions. When the percentage of space in the session store files that is used by live sessions decreases to this percentage, the oldest session store file is compacted and appended to the newest session store file, and then the oldest session store file is deleted.

**Value**— Percentage of disk space in the range 1–100. We recommend a range of 30-50
**Default**— 25
**Editing Level**—Advanced

`rotation-batch-size` *`rotation-batch-size`*—(Optional) When the oldest session store file is rotated, specifies the number of sessions that are rotated from the oldest file to the newest file at the same time. While a set of sessions is rotated, no other session store activity can take place.

**Value**— Integer in the range 0–2147483647
**Default**— 50
**Editing Level**—Advanced

`maximum-session-size` *`maximum-session-size`*—(Optional) Maximum size of a single subscriber or service session. Use this parameter to reserve memory for an internal buffer.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 10000
**Editing Level**—Advanced

`disk-load-buffer-size` *`disk-load-buffer-size`*—(Optional) Size of the buffer that is used to load all of a session store's files from disk at startup.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 1000000
**Editing Level**—Advanced

`network-buffer-size` *`network-buffer-size`*—(Optional) Size of the buffer that holds messages or message segments that are waiting to be sent to passive session stores

**Value**— Number of bytes in the range 21+ <size of maximum session size field>–2147483647
**Default**— 51050
**Editing Level**—Advanced

`retry-interval` *`retry-interval`*—(Optional) Time interval between attempts by the active session store to connect to missing passive session stores.

**Value**— Number of milliseconds in the range 0–2147483647
**Default**— 5000
**Editing Level**—Advanced

`communications-timeout` *`communications-timeout`*—(Optional) Amount of time in milliseconds that a session store waits before closing when it is blocked from reading or writing a message. This timeout does not apply when a session store is waiting for a remote session store to load its state from disk. (A non-positive number means wait forever. This is not recommended.)

**Value**— Number of milliseconds
**Default**— 60000
**Editing Level**—Advanced

`load-timeout` *`load-timeout`*—(Optional) Amount of time in milliseconds that an active session store waits for a passive session store or a passive session store waits for an active session store to load its data from disk before it closes the connection to the session store. (A non-positive number means wait forever. This is not recommended.)

**Value**— Number of milliseconds
**Default**— 420000
**Editing Level**—Advanced

`idle-timeout` *`idle-timeout`*—(Optional) Amount of time that a passive session store

waits for activity from the active session store before it closes the connection to the active session store. This timeout applies after the session store startup and initial update processes are complete.

**Value**— Number of milliseconds in the range 0–2147483647
**Default**— 3600000
**Editing Level**—Advanced

`maximum-backlog-ratio` *`maximum-backlog-ratio`*—(Optional) Along with the minimum backlog size, specifies when the active session store closes the connection to a passive session store because of a backlog of messages waiting to be sent. After the startup and initial update processes are complete, if the backlog becomes too large, the connection to the passive session store is closed. After the retry interval ends, a new connection is opened.

If the backlog of unsent operations (in bytes) divided by the total size (in bytes) of all live store operations is greater than this number, the connection is closed.

**Value**— Floating point number
**Default**— 1.5
**Editing Level**—Advanced

`minimum-backlog` *`minimum-backlog`*—(Optional) Along with the maximum backlog ratio, specifies when the active session store closes the connection to a passive session store because of a backlog of messages waiting to be sent to the passive session store. After the startup and initial update processes are complete, if the backlog becomes too large, the connection to the passive session store is closed. After the retry interval ends, a new connection is opened.

If the maximum backlog ratio is met, the active session store does not close the connection unless the backlog of messages (in bytes) is greater than this number.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 5000000
**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Advanced

# shared sae configuration driver pcmm

## Syntax

```
shared sae configuration driver pcmm {
     keepalive-interval keepalive-interval;
     tcp-connection-timeout tcp-connection-timeout;
     application-manager-id application-manager-id;
     message-timeout message-timeout;
     cops-message-maximum-length cops-message-maximum-length;
     cops-message-read-buffer-size cops-message-read-buffer-size;
     cops-message-write-buffer-size cops-message-write-buffer-size;
     sae-community-manager sae-community-manager;
     disable-full-sync;
     disable-pcmm-i03-policy;
     session-recovery-retry-interval session-recovery-retry-interval;
     element-id element-id;
     default-rks-plug-in default-rks-plug-in;
}
```

## Hierarchy Level

```
[edit shared sae configuration driver pcmm]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure the SAE to manage PCMM devices. The SAE connects to the PCMM device by using a COPS-over-TCP connection. The PCMM device driver controls this connection.

`keepalive-interval` *`keepalive-interval`*— Interval between keepalive messages sent from the COPS client (the PCMM device) to the COPS server (the SAE). The COPS client monitors the COPS connection by sending keepalive messages at random intervals between one-fourth and three-fourths of the specified interval. If the client or the server does not receive the expected keepalive answer within the specified timeout, the client closes the connection.

**Value**— Number of seconds in the range 0-2147483647. A value of 0 means that the timeout is disabled.
**Default**— 45
**Editing Level**—Advanced

`tcp-connection-timeout` *`tcp-connection-timeout`*— Timeout for opening a TCP connection to the PCMM device.

**Value**— Number of seconds in the range 0–2147483647.
**Default**— 5
**Editing Level**—Advanced

`application-manager-id` *`application-manager-id`*— Identifier of the application manager when this SAE is configured as the application manager. The application manager includes this identifier in all messages that it sends to the policy server. The policy server passes this ID to the CMTS device in Gate Control messages. The CMTS device returns the ID associated with the gate to the policy server. The policy server uses this information to associate gate messages with a particular application manager.

**Value**— 4-byte unsigned integer that is unique in a service provider network.
**Default**— 1
**Editing Level**—Normal

`message-timeout` *`message-timeout`*— Amount of time that the COPS server (the SAE) waits for a response to COPS requests from the COPS client (the PCMM device). Under a high load the PCMM device may not be able to respond fast enough to COPS requests. Change this value only if a high number of COPS timeout events appear in the error log.

**Value**— Number of milliseconds in the range 0–2147483647
**Default**— 120000
**Editing Level**—Advanced

`cops-message-maximum-length` *`cops-message-maximum-length`*— Maximum length of a COPS message. We recommend that you use the default setting.

**Value**— Number of bytes in the range 4 bytes to 2 GB
**Default**— 204800
**Editing Level**—Advanced

`cops-message-read-buffer-size` *`cops-message-read-buffer-size`*— Buffer size for receiving COPS messages from the PCMM client. We recommend that you use the default setting unless you are instructed to change it by Juniper Networks engineers.

**Value**— Number of bytes in the range 4 bytes to 2 GB
**Default**— 30000
**Editing Level**—Advanced

`cops-message-write-buffer-size` *`cops-message-write-buffer-size`*— Buffer size for sending COPS messages to the PCMM client. We recommend that you use the default setting unless you are instructed to change it by Juniper Networks engineers.

**Value**— Number of bytes in the range 4 bytes to 2 GB
**Default**— 30000
**Editing Level**—Advanced

`sae-community-manager` *`sae-community-manager`*— Name of the community manager that manages PCMM driver communities. Active SAEs are selected from this community.

**Value**— Community name
**Default**— PCMMCommunityManager
**Editing Level**—Expert

`disable-full-sync`—(Optional) Disables state synchronization with PCMM policy servers. State synchronization is achieved when the SAE is required to communicate with the policy server over the COPS connection.

**Default**—false
**Editing Level**—Expert

`disable-pcmm-i03-policy`—(Optional) Disables the SAE to send classifiers to the router that comply with PCMM I03. Use this option if your network deployment has CMTS devices that do not support PCMM I03.

**Default**—true
**Editing Level**—Expert

`session-recovery-retry-interval` *`session-recovery-retry-interval`*— Time interval between attempts by the SAE to restore service sessions that are still being recovered in the background when state synchronization is completed with a state-data-incomplete error. The SAE attempts to restore a service session if it receives a service modification or deactivation request for an unrecovered service session before the next interval.

We recommend setting this value to 3600000 (1 hour) or longer.

**Value**— Number of milliseconds in the range 0–2147483647
**Default**— 3600000
**Editing Level**—Expert

`element-id` *`element-id`*—(Optional) Unique identifier that the SAE uses to identify itself when it originates RKS events.

**Value**— 8-byte unsigned integer in the range 0–99999; must be unique within a PCMM network
**Default**— 1
**Editing Level**—Advanced

`default-rks-plug-in` *`default-rks-plug-in`*—(Optional) RKS plug-in to which the SAE

sends event messages if you do not configure a CMTS-specific plug-in.

**Value**— Name of an RKS plug-in
**Default**— No value
**Editing Level**—Advanced

### Required Privilege Level

system

### Required Editing Level

Normal

# shared sae configuration driver pcmm cmts-specific-rks-plug-ins

### Syntax

```
shared sae configuration driver pcmm cmts-specific-rks-plug-ins name {
     rks-plug-in rks-plug-in;
}
```

### Hierarchy Level

```
[edit shared sae configuration driver pcmm cmts-specific-rks-plug-ins]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure a CMTS-specific RKS plug-in.

### Options

`name` *`name`*— Name of the RKS plug-in.

**Value**—Text

`rks-plug-in` *`rks-plug-in`*—(Optional) Name of the plug-in to which the SAE sends events for this CMTS device.

**Value**— Name of an RKS plug-in
**Default**— No value
**Editing Level**—Advanced

### Required Privilege Level

system

### Required Editing Level

Advanced

# shared sae configuration driver pcmm session-store

### Syntax

```
shared sae configuration driver pcmm session-store {
     maximum-queue-age maximum-queue-age;
     maximum-queued-operations maximum-queued-operations;
     maximum-queue-size maximum-queue-size;
     maximum-file-size maximum-file-size;
     minimum-disk-space-usage minimum-disk-space-usage;
     rotation-batch-size rotation-batch-size;
     maximum-session-size maximum-session-size;
     disk-load-buffer-size disk-load-buffer-size;
     network-buffer-size network-buffer-size;
     retry-interval retry-interval;
     communications-timeout communications-timeout;
     load-timeout load-timeout;
     idle-timeout idle-timeout;
     maximum-backlog-ratio maximum-backlog-ratio;
     minimum-backlog minimum-backlog;
}
```

### Hierarchy Level

```
[edit shared sae configuration driver pcmm session-store]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure the session store for the PCMM driver.

`maximum-queue-age` *`maximum-queue-age`*—(Optional) Maximum age that a queue of buffered store operations (such as adding a session to the store or removing a session from the store) can reach before the queue is written to a session store file.

**Value**— Number of milliseconds in the range 0–2147483647. A value of -1 indicates that there is no limit. A value of zero causes the session store to write each store operation to a session store file immediately.
**Default**— 5000
**Editing Level**—Advanced

`maximum-queued-operations` *`maximum-queued-operations`*—(Optional) Number of buffered store operations that are queued before the queue is written to a session store file.

**Value**— Integer in the range 0–2147483647. A value of -1 indicates that there is no limit. A value of zero causes the session store to write each store operation to a session store file immediately.
**Default**— 50

**Editing Level**—Advanced

`maximum-queue-size` *`maximum-queue-size`*—(Optional) Maximum size that a queue of buffered store operations can reach before the queue is written to a session store file.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 51050
**Editing Level**—Advanced

`maximum-file-size` *`maximum-file-size`*—(Optional) Maximum size of session store files. When a file reaches this size, a new file is created.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 25000000
**Editing Level**—Advanced

`minimum-disk-space-usage` *`minimum-disk-space-usage`*—(Optional) Percentage of space in all session store files that is used by live sessions. When the percentage of space in the session store files that is used by live sessions decreases to this percentage, the oldest session store file is compacted and appended to the newest session store file, and then the oldest session store file is deleted.

**Value**— Percentage of disk space in the range 1–100. We recommend a range of 30-50
**Default**— 25
**Editing Level**—Advanced

`rotation-batch-size` *`rotation-batch-size`*—(Optional) When the oldest session store file is rotated, specifies the number of sessions that are rotated from the oldest file to the newest file at the same time. While a set of sessions is rotated, no other session store activity can take place.

**Value**— Integer in the range 0–2147483647
**Default**— 50
**Editing Level**—Advanced

`maximum-session-size` *`maximum-session-size`*—(Optional) Maximum size of a single subscriber or service session. Use this parameter to reserve memory for an internal buffer.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 10000
**Editing Level**—Advanced

`disk-load-buffer-size` *`disk-load-buffer-size`*—(Optional) Size of the buffer that is used to load all of a session store's files from disk at startup.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 1000000
**Editing Level**—Advanced

`network-buffer-size` *`network-buffer-size`*—(Optional) Size of the buffer that holds messages or message segments that are waiting to be sent to passive session stores

**Value**— Number of bytes in the range 21+ <size of maximum session size field>–2147483647
**Default**— 51050
**Editing Level**—Advanced

`retry-interval` *`retry-interval`*—(Optional) Time interval between attempts by the active session store to connect to missing passive session stores.

**Value**— Number of milliseconds in the range 0–2147483647
**Default**— 5000
**Editing Level**—Advanced

`communications-timeout` *`communications-timeout`*—(Optional) Amount of time in milliseconds that a session store waits before closing when it is blocked from reading or writing a message. This timeout does not apply when a session store is waiting for a remote session store to load its state from disk. (A non-positive number means wait forever. This is not recommended.)

**Value**— Number of milliseconds
**Default**— 60000
**Editing Level**—Advanced

`load-timeout` *`load-timeout`*—(Optional) Amount of time in milliseconds that an active session store waits for a passive session store or a passive session store waits for an active session store to load its data from disk before it closes the connection to the session store. (A non-positive number means wait forever. This is not recommended.)

**Value**— Number of milliseconds
**Default**— 420000
**Editing Level**—Advanced

`idle-timeout` *`idle-timeout`*—(Optional) Amount of time that a passive session store

waits for activity from the active session store before it closes the connection to the active session store. This timeout applies after the session store startup and initial update processes are complete.

**Value**— Number of milliseconds in the range 0–2147483647
**Default**— 3600000
**Editing Level**—Advanced

`maximum-backlog-ratio` *`maximum-backlog-ratio`*—(Optional) Along with the minimum backlog size, specifies when the active session store closes the connection to a passive session store because of a backlog of messages waiting to be sent. After the startup and initial update processes are complete, if the backlog becomes too large, the connection to the passive session store is closed. After the retry interval ends, a new connection is opened.

If the backlog of unsent operations (in bytes) divided by the total size (in bytes) of all live store operations is greater than this number, the connection is closed.

**Value**— Floating point number
**Default**— 1.5
**Editing Level**—Advanced

`minimum-backlog` *`minimum-backlog`*—(Optional) Along with the maximum backlog ratio, specifies when the active session store closes the connection to a passive session store because of a backlog of messages waiting to be sent to the passive session store. After the startup and initial update processes are complete, if the backlog becomes too large, the connection to the passive session store is closed. After the retry interval ends, a new connection is opened.

If the maximum backlog ratio is met, the active session store does not close the connection unless the backlog of messages (in bytes) is greater than this number.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 5000000
**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Advanced

# shared sae configuration driver scripts

## Syntax

```
shared sae configuration driver scripts {
     extension-path extension-path;
     general general;
     junos junos;
     junos-dmi junos-dmi;
     junose junose;
     junose-xdr junose-xdr;
     pcmm pcmm;
     third-party third-party;
     junos-ise junos-ise;
     junos-gx junos-gx;
}
```

## Hierarchy Level

```
[edit shared sae configuration driver scripts]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure device scripts. When the SAE establishes a connection with a router, PCMM device, or other network device, it can run a script to customize the setup of the connection. These scripts are run when the connection is established and again when the connection is dropped.

## Options

`extension-path` *`extension-path`*—(Optional) Path to scripts that are not in the default location, */opt/UMC/sae/lib* .

**Value**— List of paths separated by semicolons (;)
**Default**— No value
**Editing Level**—Normal

`general` *`general`*—(Optional) Script that can be used for all types of routers, PCMM devices, and other network devices that the SRC software supports. The script is run when the connection between a router or other network device and the SAE is established and again when the connection is dropped.

**Value**— Name of a script
**Default**— No value
**Editing Level**—Basic

`junos` *`junos`*—(Optional) Initialization script for JUNOS routing platforms. The script is run when the connection between a router and the SAE is established and again when the connection is dropped.

**Value**— Name of a script
**Default**— No value
**Editing Level**—Basic

`junos-dmi` *`junos-dmi`*—(Optional) Initialization script for JUNOS routing platforms using DMI. The script is run when the connection between a router and the SAE is established and again when the connection is dropped.

**Value**— Name of a script
**Default**— No value
**Editing Level**—Basic

`junose` *`junose`*—(Optional) [Alias: junose-pr ] Initialization script for JUNOSe routers when the JUNOSe driver uses COPS-PR mode when connecting to the SAE. The script is run when the connection between a router and the SAE is established and again when the connection is dropped.

**Value**— Name of the file that contains the script without including the .py extension.
**Default**— No value
**Editing Level**—Basic

`junose-xdr` *`junose-xdr`*—(Optional) Initialization script for JUNOSe routers when the JUNOSe driver uses XDR mode when connecting to the SAE. The script is run when the connection between a router and the SAE is established and again when the connection is dropped.

In COPS XDR mode, the router does not send the network access server (NAS) IP address to the SAE. If your configuration requires this value, add the following line to a JUNOSe script:

import ERXnasip

When you add the import ERXnasip entry, the script obtains the NAS-IP address from the router through SNMP. This mechanism can affect performance, especially when the SAE manages a large number of virtual routers.

**Value**— Name of a script. For example, iorPublisher, poolPublisher.
**Default**— No value
**Editing Level**—Basic

`pcmm` *`pcmm`*—(Optional) Initialization script for the Juniper Policy Server in a PCMM environment. The script is run when the connection between a policy server and the SAE is established and again when the connection is dropped.

**Value**— Name of a script
**Default**— No value
**Editing Level**—Basic

`third-party` *`third-party`*—(Optional) Initialization script for third-party device drivers. The script is run when the third-party device driver is activated or deactivated.

**Value**— Name of a script. For example, iorPublisher.
**Default**— No value
**Editing Level**—Basic

`junos-ise` *`junos-ise`*—(Optional) [Alias: intelligent-service-edge ] Initialization script for intelligent-service-edge device drivers. The script is run when the intelligent-service-edge device driver is activated or deactivated.

**Value**— Name of a script. For example, iorPublisher.
**Default**— No value
**Editing Level**—Basic

`junos-gx` *`junos-gx`*—(Optional) Initialization script for junos-gx device drivers. The script is run when the junos-gx device driver is activated or deactivated.

**Value**— Name of a script. For example, iorPublisher.
**Default**— No value
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration driver session-store

## Syntax

```
shared sae configuration driver session-store {
     ip-address ip-address;
     port port;
     root-directory root-directory;
     file-expiry-age file-expiry-age;
     file-expiry-check-interval file-expiry-check-interval;
}
```

## Hierarchy Level

```
[edit shared sae configuration driver session-store]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure global session store parameters that are shared by all session store instances (active or passive) on the SAE. You can also configure session store parameters within a router or other device driver configuration.

## Options

`ip-address` *`ip-address`*—(Optional) IP address that the session store infrastructure on this SAE uses to listen for incoming TCP connections from active session stores.

**Value**— IP address. The address must be an IP address configured for the SAE host. If you do not enter an address or if you disable this field, active session stores cannot create passive session stores on this SAE. We recommend that you enter an address that is configured in a list of connected SAEs.
**Default**— No value
**Editing Level**—Advanced

`port` *`port`*—(Optional) TCP port number on which the session store infrastructure on this SAE listens for incoming connections from active session stores. This option has no effect if you have not configured a session store IP address.

**Value**— Port number in the range 1027–65535
**Default**— No value
**Editing Level**—Advanced

`root-directory` *`root-directory`*—(Optional) Root directory in which the session store creates files. This option has no effect if you have not configured a session store IP address.

**Value**— Directory name
**Default**— *No value*
**Editing Level**—Advanced

`file-expiry-age` *`file-expiry-age`*—(Optional) Maximum age of the dormant session store file in milli seconds.The file will be deleted if it is not modified for the configured period.

**Value**— Integer in the range 0–2147483647. The value given is in milli seconds.
**Default**— 604800000
**Editing Level**—Advanced

`file-expiry-check-interval` *`file-expiry-check-interval`*—(Optional) Interval in which the age of session store file is monitored to check if it exceeds the fileExpiryAge.Minimum value is 1000(1 second) as values less than it are not meaningful and the value zero causes harm at startup.

**Value**— Integer in the range 1000–2147483647. The value given is in milli seconds.
**Default**— 3600000
**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Advanced

# shared sae configuration driver simulated

## Syntax

```
shared sae configuration driver simulated name {
     driver-type (junos | junose | pcmm);
     router-version router-version;
     router-address router-address;
     transport-router transport-router;
}
```

## Hierarchy Level

```
[edit shared sae configuration driver simulated]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure simulated router drivers. Simulated router drivers allow you to create subscriber sessions without connecting to a router. You can then use the simulated subscriber sessions to test SAE applications.

## Options

`name` *`name`*— Name of the simulated router driver.

**Value**—Text

`driver-type (junos | junose | pcmm)`— Type of device that the simulated driver simulates

**Value**— One of the following:

- junos
- junose
- pcmm

**Default**— JUNOS
**Editing Level**—Basic

`router-version` *`router-version`*—(Optional) Version of the device software to simulate.

**Value**— Valid software version for the device that is being simulated.
**Default**— No value

**Editing Level**—Basic

`router-address` *`router-address`*— Address of the router that is available for router initialization scripts.

**Value**— IP address
**Default**—10.0.0.1
**Editing Level**—Basic

`transport-router` *`transport-router`*—(Optional) Name of a virtual router that is used to connect to the SAE. This value is passed to the router initialization script. It is not supported on JUNOS routing platforms.

**Value**— Name of a virtual router
**Default**— No value
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Normal

# shared sae configuration driver simulated *name* session-store

### Syntax

```
shared sae configuration driver simulated name session-store {
     maximum-queue-age maximum-queue-age;
     maximum-queued-operations maximum-queued-operations;
     maximum-queue-size maximum-queue-size;
     maximum-file-size maximum-file-size;
     minimum-disk-space-usage minimum-disk-space-usage;
     rotation-batch-size rotation-batch-size;
     maximum-session-size maximum-session-size;
     disk-load-buffer-size disk-load-buffer-size;
     network-buffer-size network-buffer-size;
     retry-interval retry-interval;
     communications-timeout communications-timeout;
     load-timeout load-timeout;
     idle-timeout idle-timeout;
     maximum-backlog-ratio maximum-backlog-ratio;
     minimum-backlog minimum-backlog;
}
```

### Hierarchy Level

```
[edit shared sae configuration driver simulated name session-store]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure the session store for the simulated driver.

`maximum-queue-age` *`maximum-queue-age`*—(Optional) Maximum age that a queue of buffered store operations (such as adding a session to the store or removing a session from the store) can reach before the queue is written to a session store file.

**Value**— Number of milliseconds in the range 0–2147483647. A value of -1 indicates that there is no limit. A value of zero causes the session store to write each store operation to a session store file immediately.
**Default**— 5000
**Editing Level**—Advanced

`maximum-queued-operations` *`maximum-queued-operations`*—(Optional) Number of buffered store operations that are queued before the queue is written to a session store file.

**Value**— Integer in the range 0–2147483647. A value of -1 indicates that there is no limit. A value of zero causes the session store to write each store operation to a session store file immediately.
**Default**— 50
**Editing Level**—Advanced

`maximum-queue-size` *`maximum-queue-size`*—(Optional) Maximum size that a queue of buffered store operations can reach before the queue is written to a session store file.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 51050
**Editing Level**—Advanced

`maximum-file-size` *`maximum-file-size`*—(Optional) Maximum size of session store files. When a file reaches this size, a new file is created.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 25000000
**Editing Level**—Advanced

`minimum-disk-space-usage` *`minimum-disk-space-usage`*—(Optional) Percentage of space in all session store files that is used by live sessions. When the percentage of space in the session store files that is used by live sessions decreases to this percentage, the oldest session store file is compacted and appended to the newest session store file, and then the oldest session store file is deleted.

**Value**— Percentage of disk space in the range 1–100. We recommend a range of 30-50
**Default**— 25
**Editing Level**—Advanced

`rotation-batch-size` *`rotation-batch-size`*—(Optional) When the oldest session store file is rotated, specifies the number of sessions that are rotated from the oldest file to the newest file at the same time. While a set of sessions is rotated, no other session store activity can take place.

**Value**— Integer in the range 0–2147483647
**Default**— 50
**Editing Level**—Advanced

`maximum-session-size` *`maximum-session-size`*—(Optional) Maximum size of a single subscriber or service session. Use this parameter to reserve memory for an internal buffer.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 10000
**Editing Level**—Advanced

`disk-load-buffer-size` *`disk-load-buffer-size`*—(Optional) Size of the buffer that is used to load all of a session store's files from disk at startup.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 1000000
**Editing Level**—Advanced

`network-buffer-size` *`network-buffer-size`*—(Optional) Size of the buffer that holds messages or message segments that are waiting to be sent to passive session stores

**Value**— Number of bytes in the range 21+ <size of maximum session size field>–2147483647
**Default**— 51050
**Editing Level**—Advanced

`retry-interval` *`retry-interval`*—(Optional) Time interval between attempts by the active session store to connect to missing passive session stores.

**Value**— Number of milliseconds in the range 0–2147483647
**Default**— 5000
**Editing Level**—Advanced

`communications-timeout` *`communications-timeout`*—(Optional) Amount of time in milliseconds that a session store waits before closing when it is blocked from reading or writing a message. This timeout does not apply when a session store is waiting for a remote session store to load its state from disk. (A non-positive number means wait forever. This is not recommended.)

**Value**— Number of milliseconds
**Default**— 60000
**Editing Level**—Advanced

`load-timeout` *`load-timeout`*—(Optional) Amount of time in milliseconds that an active session store waits for a passive session store or a passive session store waits for an active session store to load its data from disk before it closes the connection to the session store. (A non-positive number means wait forever. This is not recommended.)

**Value**— Number of milliseconds
**Default**— 420000
**Editing Level**—Advanced

`idle-timeout` *`idle-timeout`*—(Optional) Amount of time that a passive session store waits for activity from the active session store before it closes the connection to the active session store. This timeout applies after the session store startup and initial update processes are complete.

**Value**— Number of milliseconds in the range 0–2147483647
**Default**— 3600000
**Editing Level**—Advanced

`maximum-backlog-ratio` *`maximum-backlog-ratio`*—(Optional) Along with the minimum backlog size, specifies when the active session store closes the connection to a passive session store because of a backlog of messages waiting to be sent. After the startup and initial update

processes are complete, if the backlog becomes too large, the connection to the passive session store is closed. After the retry interval ends, a new connection is opened.

If the backlog of unsent operations (in bytes) divided by the total size (in bytes) of all live store operations is greater than this number, the connection is closed.

**Value**— Floating point number
**Default**— 1.5
**Editing Level**—Advanced

`minimum-backlog` *`minimum-backlog`*—(Optional) Along with the maximum backlog ratio, specifies when the active session store closes the connection to a passive session store because of a backlog of messages waiting to be sent to the passive session store. After the startup and initial update processes are complete, if the backlog becomes too large, the connection to the passive session store is closed. After the retry interval ends, a new connection is opened.

If the maximum backlog ratio is met, the active session store does not close the connection unless the backlog of messages (in bytes) is greater than this number.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 5000000
**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Advanced

# shared sae configuration driver snmp

## Syntax

```
shared sae configuration driver snmp {
     read-only-community-string read-only-community-string;
     read-write-community-string read-write-community-string;
     concurrent-post-sync-jobs concurrent-post-sync-jobs;
     concurrent-requests concurrent-requests;
     concurrent-request-timeout concurrent-request-timeout;
}
```

## Hierarchy Level

```
[edit shared sae configuration driver snmp]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure global default SNMP communities for use with JUNOSe routers and JUNOS routing platforms. Global default SNMP communities are used if a virtual router does not exist on the router or the community strings have not been configured for the VR.

## Options

`read-only-community-string` *`read-only-community-string`*— Default SNMP community string used for read access to the router.

**Value**— SNMP community string that matches a read-only community string configured on the router.
**Default**— public
**Editing Level**—Normal

`read-write-community-string` *`read-write-community-string`*— Default SNMP community string used for write access to the router.

**Value**— SNMP community string that matches a read-write community string configured on the router.
**Default**— private
**Editing Level**—Normal

`concurrent-post-sync-jobs` *`concurrent-post-sync-jobs`*—(Optional) Number of jobs that can be processed concurrently to login subscriber sessions that are incomplete after synchronizing state with the router.

**Value**—Integer in the range 1–500
**Default**— 10
**Editing Level**—Basic

`concurrent-requests` *`concurrent-requests`*—(Optional) Number of unsolicited requests that can be sent concurrently. When this number is exceeded, additional requests (e.g. service activations, deactivations) will wait until a permit becomes available or the request times out.

**Value**—Integer in the range 1–500
**Default**— 100
**Editing Level**—Basic

`concurrent-request-timeout` *`concurrent-request-timeout`*—(Optional) If a request is blocked because the number of concurrent requests is exceeded, it will wait for the specified timeout for a permit to become available. If the timeout is exceeded the request will fail without being sent to the device.

**Value**— Number of seconds in the range 0—900
**Default**— 30
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration driver third-party

### Syntax

```
shared sae configuration driver third-party {
     network-monitor-address [network-monitor-address...];
     update-interval update-interval;
     sae-community-manager sae-community-manager;
     prefer-second-user-session;
}
```

### Hierarchy Level

```
[edit shared sae configuration driver third-party]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure the community manager for third-party devices that the SAE manages.

`network-monitor-address [network-monitor-address...]`—(Optional) List of devices which would be pinged during the election of the master. If none of the devices in the list are pingable then Router Driver would be shutdown.

**Value**—Text
**Editing Level**—Expert

`update-interval update-interval`—(Optional) Time Interval to monitor the devices configured to check for network isolation. This is applicable only when network-monitor-address is present

**Value**— Number of seconds
**Default**— 10
**Editing Level**—Basic

`sae-community-manager sae-community-manager`— Name of the community manager that manages network device communities. Active SAEs are selected from this community.

**Value**— Community name
**Default**— PROXYCommunityManager
**Editing Level**—Expert

`prefer-second-user-session`—(Optional) When this option is set, a request for a second

session with the same ip address will cause an existing session to be terminated. Mostly used in case of DHCP subscriber monitoring using Event Notification Application, where renewal of subscriber session may happen upon the same ip address for which an IpUp event is sent.

**Value**— Enabled or Disabled
**Default**— Disabled
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Advanced

# shared sae configuration driver third-party session-store

### Syntax

```
shared sae configuration driver third-party session-store {
     maximum-queue-age maximum-queue-age;
     maximum-queued-operations maximum-queued-operations;
     maximum-queue-size maximum-queue-size;
     maximum-file-size maximum-file-size;
     minimum-disk-space-usage minimum-disk-space-usage;
     rotation-batch-size rotation-batch-size;
     maximum-session-size maximum-session-size;
     disk-load-buffer-size disk-load-buffer-size;
     network-buffer-size network-buffer-size;
     retry-interval retry-interval;
     communications-timeout communications-timeout;
     load-timeout load-timeout;
     idle-timeout idle-timeout;
     maximum-backlog-ratio maximum-backlog-ratio;
     minimum-backlog minimum-backlog;
}
```

### Hierarchy Level

```
[edit shared sae configuration driver third-party session-store]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure the session store for the third-party device driver.

`maximum-queue-age` *`maximum-queue-age`*—(Optional) Maximum age that a queue of buffered store operations (such as adding a session to the store or removing a session from the store) can reach before the queue is written to a session store file.

**Value**— Number of milliseconds in the range 0–2147483647. A value of -1 indicates that there is no limit. A value of zero causes the session store to write each store operation to a session store file immediately.
**Default**— 5000
**Editing Level**—Advanced

`maximum-queued-operations` *`maximum-queued-operations`*—(Optional) Number of buffered store operations that are queued before the queue is written to a session store file.

**Value**— Integer in the range 0–2147483647. A value of -1 indicates that there is no limit. A value of zero causes the session store to write each store operation to a session store file immediately.
**Default**— 50

**Editing Level**—Advanced

`maximum-queue-size` *`maximum-queue-size`*—(Optional) Maximum size that a queue of buffered store operations can reach before the queue is written to a session store file.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 51050
**Editing Level**—Advanced

`maximum-file-size` *`maximum-file-size`*—(Optional) Maximum size of session store files. When a file reaches this size, a new file is created.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 25000000
**Editing Level**—Advanced

`minimum-disk-space-usage` *`minimum-disk-space-usage`*—(Optional) Percentage of space in all session store files that is used by live sessions. When the percentage of space in the session store files that is used by live sessions decreases to this percentage, the oldest session store file is compacted and appended to the newest session store file, and then the oldest session store file is deleted.

**Value**— Percentage of disk space in the range 1–100. We recommend a range of 30-50
**Default**— 25
**Editing Level**—Advanced

`rotation-batch-size` *`rotation-batch-size`*—(Optional) When the oldest session store file is rotated, specifies the number of sessions that are rotated from the oldest file to the newest file at the same time. While a set of sessions is rotated, no other session store activity can take place.

**Value**— Integer in the range 0–2147483647
**Default**— 50
**Editing Level**—Advanced

`maximum-session-size` *`maximum-session-size`*—(Optional) Maximum size of a single subscriber or service session. Use this parameter to reserve memory for an internal buffer.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 10000
**Editing Level**—Advanced

`disk-load-buffer-size` *`disk-load-buffer-size`*—(Optional) Size of the buffer that is used to load all of a session store's files from disk at startup.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 1000000
**Editing Level**—Advanced

`network-buffer-size` *`network-buffer-size`*—(Optional) Size of the buffer that holds messages or message segments that are waiting to be sent to passive session stores

**Value**— Number of bytes in the range 21+ <size of maximum session size field>–2147483647
**Default**— 51050
**Editing Level**—Advanced

`retry-interval` *`retry-interval`*—(Optional) Time interval between attempts by the active session store to connect to missing passive session stores.

**Value**— Number of milliseconds in the range 0–2147483647
**Default**— 5000
**Editing Level**—Advanced

`communications-timeout` *`communications-timeout`*—(Optional) Amount of time in milliseconds that a session store waits before closing when it is blocked from reading or writing a message. This timeout does not apply when a session store is waiting for a remote session store to load its state from disk. (A non-positive number means wait forever. This is not recommended.)

**Value**— Number of milliseconds
**Default**— 60000
**Editing Level**—Advanced

`load-timeout` *`load-timeout`*—(Optional) Amount of time in milliseconds that an active session store waits for a passive session store or a passive session store waits for an active session store to load its data from disk before it closes the connection to the session store. (A non-positive number means wait forever. This is not recommended.)

**Value**— Number of milliseconds
**Default**— 420000
**Editing Level**—Advanced

`idle-timeout` *`idle-timeout`*—(Optional) Amount of time that a passive session store

waits for activity from the active session store before it closes the connection to the active session store. This timeout applies after the session store startup and initial update processes are complete.

**Value**— Number of milliseconds in the range 0–2147483647
**Default**— 3600000
**Editing Level**—Advanced

`maximum-backlog-ratio` *`maximum-backlog-ratio`*—(Optional) Along with the minimum backlog size, specifies when the active session store closes the connection to a passive session store because of a backlog of messages waiting to be sent. After the startup and initial update processes are complete, if the backlog becomes too large, the connection to the passive session store is closed. After the retry interval ends, a new connection is opened.

If the backlog of unsent operations (in bytes) divided by the total size (in bytes) of all live store operations is greater than this number, the connection is closed.

**Value**— Floating point number
**Default**— 1.5
**Editing Level**—Advanced

`minimum-backlog` *`minimum-backlog`*—(Optional) Along with the maximum backlog ratio, specifies when the active session store closes the connection to a passive session store because of a backlog of messages waiting to be sent to the passive session store. After the startup and initial update processes are complete, if the backlog becomes too large, the connection to the passive session store is closed. After the retry interval ends, a new connection is opened.

If the maximum backlog ratio is met, the active session store does not close the connection unless the backlog of messages (in bytes) is greater than this number.

**Value**— Number of bytes in the range 0–2147483647
**Default**— 5000000
**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Advanced

# shared sae configuration dynamic-radius-server

## Syntax

```
shared sae configuration dynamic-radius-server {
     maximum-cached-peer maximum-cached-peer;
}
```

## Hierarchy Level

```
[edit shared sae configuration dynamic-radius-server]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure the number of peers that the dynamic RADIUS server can maintain.

## Options

`maximum-cached-peer` *`maximum-cached-peer`*— Maximum number of peers maintained by the dynamic RADIUS server.

**Value**— Integer
**Default**— 100
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration external-interface-features

### Syntax

```
shared sae configuration external-interface-features name ...
```

### Hierarchy Level

```
[edit shared sae configuration external-interface-features]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Create an external interface configuration.

### Options

`name` *`name`*— Name of the external interface configuration.

**Value**—Text

### Required Privilege Level

system

### Required Editing Level

Advanced

# shared sae configuration external-interface-features *name* CommunityManager

### Syntax

```
shared sae configuration external-interface-features name CommunityManager {
     keepalive-interval keepalive-interval;
     threads threads;
     acquire-timeout acquire-timeout;
     blackout-time blackout-time;
}
```

### Hierarchy Level

```
[edit shared sae configuration external-interface-features name CommunityManager]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure the SAE community manager that manages PCMM and third-party device communities.

`keepalive-interval` *`keepalive-interval`*— Interval between keepalive messages sent from the active SAE to the passive members of the community.

**Value**— Number of seconds in the range 0–2147483647
**Default**— 30
**Editing Level**—Basic

`threads` *`threads`*— Number of threads that are allocated to manage the community. You generally do not need to change this property.

**Value**— Integer in the range 1–50
**Default**— 5
**Editing Level**—Basic

`acquire-timeout` *`acquire-timeout`*— Amount of time an SAE waits for a remote member of the community when it is acquiring a distributed lock. To avoid race conditions when the SAE community is determining which SAE is the active SAE, the community manager has a distributed lock. When an SAE attempts to become the active SAE, it needs to acquire the distributed lock. You generally do not need to change this property.

**Value**— Number of seconds in the range 0–2147483647
**Default**— 15
**Editing Level**—Advanced

`blackout-time` *`blackout-time`*— Amount of time that an active SAE must wait after it shuts down before it can try to become the active SAE of the community again.

**Value**— Number of seconds in the range 0–2147483647
**Default**— 30
**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration external-interface-features *name* EventAPI

### Syntax

```
shared sae configuration external-interface-features name EventAPI {
     retry-time retry-time;
     retry-limit retry-limit;
     threads threads;
}
```

### Hierarchy Level

```
[edit shared sae configuration external-interface-features name EventAPI]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure properties for the Event Notification API.

`retry-time` *`retry-time`*— Amount of time between attempts to send router events that could not be delivered.

**Value**— Number of seconds in the range 0–2147483647
**Default**— 300
**Editing Level**—Basic

`retry-limit` *`retry-limit`*— Maximum number of times an event fails to be delivered before it is discarded.

**Value**— Integer in the range 0–2147483647
**Default**— 5
**Editing Level**—Basic

`threads` *`threads`*— Number of threads allocated to process events.

**Value**— Integer in the range 0–2147483647
**Default**— 5
**Editing Level**—Basic

### Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration external-interface-features *name* JavaScriptProcessor

### Syntax

```
shared sae configuration external-interface-features name JavaScriptProcessor {
     script-directory script-directory;
     scan-interval scan-interval;
     compiler-classpath compiler-classpath;
     character-encoding character-encoding;
     compiler-debug;
     java-compiler java-compiler;
}
```

### Hierarchy Level

```
[edit shared sae configuration external-interface-features name JavaScriptProcessor]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure the SAE properties that activate and configure the Java script interface module.

`script-directory` *`script-directory`*—(Optional) Storage location for Java scripts; defined relative to the SAE installation directory. If you store the scripts in the /opt/UMC/sae/var/javaScripts directory on the SRC system, you do not need to specify this property.

Do not specify a directory that is part of the class path of the JVM running the SAE. If you do so, unloading of Java scripts will fail.

**Value**— Path that can be read by a URL class loader, in one of the following formats:

- file: //<path><filename>
- http: //<hostName>.<portNumber><path><filename>
- path—List of directories separated by forward slashes
- filename—Name of the JAR file
- hostName—Name of the host on which the script is stored
- portNumber—Number of the TCP/IP port

**Default**— *var/javaScripts*
**Editing Level**—Advanced

`scan-interval` *`scan-interval`*— Time interval between scans in the script directory for

new or modified .java source files. At each scan, the interface module compiles new and modified files. If the scripts conform to Java script requirements, the interface module installs them on the SAE as Java scripts. It also removes deleted scripts from the SAE.

**Value**— Number of seconds in the range 0–2147483647; 0 (zero) means that the interface module does not scan the directories.
**Default**— 0
**Editing Level**—Advanced

`compiler-classpath` *`compiler-classpath`*— Class path that the compiler uses to load source files.

**Value**— Path that can be read by a URL class loader, in one of the following formats:

- file: //<path><filename>
- http://<hostName>.<portNumber><path><filename>
- path—List of directories separated by forward slashes
- filename—Name of the JAR file
- hostName—Name of the host on which the script is stored
- portNumber—Number of the TCP/IP port

If you clear this value, the value defaults to the Java script directory specified by the script-directory option.

**Default**— *var/javaScripts:lib/sae.jar*
**Editing Level**—Advanced

`character-encoding` *`character-encoding`*—(Optional) Character encoding that the compiler uses when it loads Java source files.

**Value**— See http://java.sun.com/j2se/1.4/docs/guide/intl/encoding.doc.html
**Default**— Default encoding for the platform on which you are working
**Editing Level**—Advanced

`compiler-debug`—(Optional) Enables or disables whether the compiler places debug information into .class files

**Default**— Disabled
**Editing Level**—Advanced

`java-compiler` *`java-compiler`*—(Optional)

If you do not specify an external compiler, the interface module compiles the scripts-in-

process with the com.sun.tools.javac.Main compiler from Sun Microsystem's tools.jar. The information specified in the Character Encoding, Compiler Classpath, and Compiler Debug fields is passed to the compiler.

If you specify an external compiler, an external process is created to perform the compilation using the specified command, and the information specified in the Character Encoding, Compiler Classpath, and Compiler Debug fields is ignored. Assumptions:

- The specified shell command will invoke an appropriate Java compiler without error.
- The specified shell command uses a class path that includes both the Java script directory specified in the Script Directory field and the SAE's public APIs.
- The compiler outputs its .class files to the directory specified in the Script Directory field.

**Value**— Command string with the class path that identifies both the Java script directory and the public APIs for the SAE.
**Default**— javac -classpath var/javaScripts:lib/sae.jar -d var/javaScripts
**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration external-interface-features *name* PythonScriptProcessor

### Syntax

```
shared sae configuration external-interface-features name PythonScriptProcessor {
}
```

### Hierarchy Level

```
[edit shared sae configuration external-interface-features name PythonScriptProcessor]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Create an instance of the Python script processor.

### Required Privilege Level

system

### Required Editing Level

Basic

# shared sae configuration external-interface-features *name* SAEAccess

### Syntax

```
shared sae configuration external-interface-features name SAEAccess {
     cache-size cache-size;
     cache-timeout cache-timeout;
     cache-clean cache-clean;
}
```

### Hierarchy Level

```
[edit shared sae configuration external-interface-features name SAEAccess]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure properties for the SAE access interface module.

`cache-size` *`cache-size`*— Maximum number of subscriber objects kept in the cache.

**Value**— Integer in the range 0–2147483647
**Default**— 1024
**Editing Level**—Normal

`cache-timeout` *`cache-timeout`*— Maximum time that idle subscriber objects are kept in the cache.

**Value**— Number of seconds in the range 0–2147483647
**Default**— 30
**Editing Level**—Normal

`cache-clean` *`cache-clean`*— Number of subscriber objects removed from the cache when the maximum number is reached.

**Value**— Integer in the range 1–<cache size>
**Default**— 1
**Editing Level**—Normal

### Required Privilege Level

system

**Required Editing Level**

Basic

# shared sae configuration external-interface-features *name* SAEFeature

### Syntax

```
shared sae configuration external-interface-features name SAEFeature {
     java-class java-class;
     additional-classpath additional-classpath;
}
```

### Hierarchy Level

```
[edit shared sae configuration external-interface-features name SAEFeature]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure SAE properties for customized interface modules.

`java-class` *`java-class`*— Name of the Java class that implements the interface module.

**Value**— Fully qualified Java class name. For example,net.juniper.smgt.sae.saeimpl.SAEAccessImpl.
**Default**— No value
**Editing Level**—Normal

`additional-classpath` *`additional-classpath`*—(Optional) Path to the location where libraries are stored. If you store the libraries in the /opt/UMC/sae/lib directory on the host where you installed the SAE software, you do not need to specify a class path.

**Value**— Comma-separated list of URLs that can be read by a URL class loader in one of the following formats:

- file://<path><filename>
- http://<hostName><portNumber><path><filename>

where

- path is a list of directories separated by backslashes
- filename is the name of the JAR file
- hostName is the name of the host on which the script is stored
- portNumber is the number of the TCP/IP port

**Default**— No value

**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration external-interface-features *name* SAEFeature properties

### Syntax

```
shared sae configuration external-interface-features name SAEFeature properties name {
     value;
}
```

### Hierarchy Level

```
[edit shared sae configuration external-interface-features name SAEFeature properties]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Define properties for an SAE customized interface module.

### Options

`name` *`name`*— Name of the property for which you want to define a value.

**Value**—Text

*`value`*— Value for the property.

**Value**— Value for the property.
**Default**— No value
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Normal

# shared sae configuration file-accounting-template

### Syntax

```
shared sae configuration file-accounting-template name ...
```

### Hierarchy Level

```
[edit shared sae configuration file-accounting-template]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure a template that defines header names for attributes listed in accounting files. When the SAE writes data to a flat file, it writes into the first line the headers that identify the attributes in the file. For example, in the following accounting file, the first line lists headers for all attribute fields in the file, and the following lines list the actual data in each field:

Accounting Status,NAS ID,SAE Host,Router Name,Interface Name,Interface Alias

start,SSP.uelmo,uelmo,default@erx7_ssp57,FastEthernet1/1.1.

You can assign your own names to the headers that appear in the file. To do so, you define the header names in a template and then set up file accounting plug-ins to use the template. The default template, FileAccounting.std, defines header names for all possible attributes. You can use the default template or create your own templates.

### Options

`name` *`name`*— Name of the file-accounting template.

**Value**—Text

### Required Privilege Level

system

### Required Editing Level

Basic

# shared sae configuration file-accounting-template *name* attributes

## Syntax

```
shared sae configuration file-accounting-template name attributes (status | nas-id |
host | router-name | interface-name | interface-alias | interface-descr | port-id |
user-ip-address | login-name | accounting-id | auth-user-id | if-radius-class | if-
session-id | service-name | radius-class | event-time | session-id | terminate-cause |
session-time | in-octets | out-octets | in-packets | out-packets | ipv6-in-octets |
ipv6-out-octets | ipv6-in-packets | ipv6-out-packets | nas-ip | user-mac-address |
service-session-name | service-session-tag | user-type | user-radius-class | user-
session-id | primary-user-name | subscription-name | login-id | if-index | event-time-
millisecond | nas-port | operational | user-inet-address | framed-ipv6-prefix | nas-
inet-address | router-type | interface-speed | service-bundle | user-dn | uid | domain
| retailer-dn | password | service-scope | session-timeout | service-identifier |
downstream-bandwidth | upstream-bandwidth | dhcp-packet | aggr-session-id | aggr-
login-name | aggr-user-dn | aggr-user-inet-address | aggr-accounting-id | aggr-auth-
user-id | user-session-handle | calling-station-id | remote-tunnel-inet-address |
local-tunnel-inet-address | vpn-id | event-trigger | tdf-app-id | tdf-app-instance-id
| rating-group | total-octets | ipv6-total-octets) {
     value;
}
```

## Hierarchy Level

```
[edit shared sae configuration file-accounting-template name attributes]
```

## Description

Configure the values for the attribute headers that will appear in accounting files.

## Options

Name of the accounting attribute for which you want to define a header.

### Value

- status—
- nas-id—
- host—
- router-name—
- interface-name—
- interface-alias—
- interface-descr—
- port-id—
- user-ip-address—
- login-name—
- accounting-id—
- auth-user-id—
- if-radius-class—
- if-session-id—
- service-name—
- radius-class—

- event-time——
- session-id——
- terminate-cause——
- session-time——
- in-octets——
- out-octets——
- in-packets——
- out-packets——
- ipv6-in-octets——
- ipv6-out-octets——
- ipv6-in-packets——
- ipv6-out-packets——
- nas-ip——
- user-mac-address——
- service-session-name——
- service-session-tag——
- user-type——
- user-radius-class——
- user-session-id——
- primary-user-name——
- subscription-name——
- login-id——
- if-index——
- event-time-millisecond——
- nas-port——
- operational——
- user-inet-address——
- framed-ipv6-prefix——
- nas-inet-address——
- router-type——
- interface-speed——
- service-bundle——
- user-dn——
- uid——
- domain——
- retailer-dn——
- password——
- service-scope——
- session-timeout——
- service-identifier——
- downstream-bandwidth——
- upstream-bandwidth——
- dhcp-packet——
- aggr-session-id——
- aggr-login-name——
- aggr-user-dn——
- aggr-user-inet-address——
- aggr-accounting-id——
- aggr-auth-user-id——
- user-session-handle——
- calling-station-id——
- remote-tunnel-inet-address——

- `local-tunnel-inet-address`—
- `vpn-id`—
- `event-trigger`—
- `tdf-app-id`—
- `tdf-app-instance-id`—
- `rating-group`—
- `total-octets`—
- `ipv6-total-octets`—

*`value`*— Header text that appears in the accounting file.

**Value**— Text that you want to appear as the header in the property file. If the header contains spaces, enclose the header in quotation marks.
**Default**— No value
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration global-radius-udp-port

### Syntax

```
shared sae configuration global-radius-udp-port {
     udp-port;
}
```

### Hierarchy Level

```
[edit shared sae configuration global-radius-udp-port]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure a global source UDP port or a pool of ports that RADIUS plug-ins use to communicate with RADIUS servers.

In RADIUS packets that RADIUS plug-ins send to a RADIUS server, the plug-in uses an identifier field to match requests to replies. This field provides for a maximum of 256 identifiers. Once all identifiers are used, the plug-in cannot send any more requests until it receives replies that match the requests already sent. In high-load systems, this limit can slow performance.

To overcome this limitation, you can configure a pool of UDP ports for RADIUS plug-ins. Having a pool of ports allows RADIUS plug-ins to create one queue per port to wait for RADIUS replies. Each queue can wait for 256 RADIUS packets. The RADIUS plug-ins send RADIUS packets through the pool of ports in a round-robin mode.

### Options

*udp-port*— Global source UDP port or a pool of ports that RADIUS plug-ins use to communicate with RADIUS servers. You can also configure UDP ports for each plug-in instance. If you do not configure a UDP port for a plug-in instance, the plug-in uses the global UDP port.

**Value**— You can enter a single port number, a pool of port numbers, or a list of port numbers and port ranges:

- Port number in the range 1–65535
- A range of ports in the format port-port; for example, 7000-7003

**Default**— 18130
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Advanced

# shared sae configuration idle-timeout

### Syntax

```
shared sae configuration idle-timeout {
     adjust-session-time;
}
```

### Hierarchy Level

```
[edit shared sae configuration idle-timeout]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Specify whether or not the SAE reduces the session time reported in the accounting stop message by the idle time. This way the session time is accurately reported to avoid overcharges for the session.

### Options

`adjust-session-time`—(Optional) If enabled, when an idle timeout terminates a session, the session time reported in the accounting stop message is reduced by the idle time.

**Default**— No value
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Advanced

# shared sae configuration interim-accounting

## Syntax

```
shared sae configuration interim-accounting {
     service-interim-accounting;
     service-interim-interval service-interim-interval;
     service-interim-mode (not-supported | polling | pushing | polling-or-pushing |
user-polling-service-pushing);
     subscriber-interim-accounting;
     subscriber-interim-interval subscriber-interim-interval;
     user-interim-mode (not-supported | polling | pushing | polling-or-pushing | user-
polling-service-pushing);
}
```

## Hierarchy Level

```
[edit shared sae configuration interim-accounting]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Enable interim accounting and set intervals between interim accounting messages for services and subscribers. These settings apply to all subscriber sessions and service sessions. You can override these settings for specific services by configuring an accounting interim interval in the service configuration.

## Options

`service-interim-accounting`—(Optional) Enable interim accounting for services. You can override this setting for specific services by configuring an accounting interim interval in the service configuration.

**Default**— Enabled
**Editing Level**—Basic

`service-interim-interval` *`service-interim-interval`*— Interval between service interim accounting messages. A short interval causes the SAE to send many messages to the router and to the RADIUS servers. A long interval can result in a large loss of accounting information in the event of a system failure.

**Value**— Number of seconds in the range 900–86400
**Default**— 86400
**Editing Level**—Basic

`service-interim-mode (not-supported | polling | pushing | polling-or-pushing | user-polling-service-pushing)`—(Optional)

**Value**

- `not-supported`—
- `polling`—
- `pushing`—
- `polling-or-pushing`—
- `user-polling-service-pushing`—

**Editing Level**—Basic

`subscriber-interim-accounting`—(Optional) Enable interim accounting for subscribers. If enabled, the SAE continually generates Interim-Update accounting requests for all active subscribers at the interval specified with the **subscriber-interim-interval** option.

**Default**— Enabled
**Editing Level**—Basic

`subscriber-interim-interval` *`subscriber-interim-interval`*— Interval between subscriber interim accounting messages. A short interval causes the SAE to send many messages to any configured accounting servers. A long interval can result in a large loss of accounting information in the event of a system failure.

**Value**— Number of seconds in the range 900–86400
**Default**— 86400
**Editing Level**—Basic

`user-interim-mode (not-supported | polling | pushing | polling-or-pushing | user-polling-service-pushing)`—(Optional)

**Value**

- `not-supported`—
- `polling`—
- `pushing`—
- `polling-or-pushing`—
- `user-polling-service-pushing`—

**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Normal

# shared sae configuration interim-session-job-manager

### Syntax

```
shared sae configuration interim-session-job-manager {
     number-of-threads number-of-threads;
}
```

### Hierarchy Level

```
[edit shared sae configuration interim-session-job-manager]
```

### Release Information

Statement introduced in SRC Release 3.1.0

### Description

Configure the number of threads used for interim-session-related activity; for example, subscriber and service session interim accounting.

### Options

`number-of-threads` *`number-of-threads`*— Number of threads used for interim-session-related activity.

**Value**— Integer in the range 1–1000
**Default**— 32
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Expert

# shared sae configuration ldap

## Syntax

```
shared sae configuration ldap {
     network-dn network-dn;
     enable-directory-eventing;
}
```

## Hierarchy Level

```
[edit shared sae configuration ldap]
```

## Description

Configure the LDAP connection from the SAE to the directory in which network device data is stored.

## Options

`network-dn` *`network-dn`*— Subtree in the directory in which network device data is stored.

**Value**— <DN>. You can use the special value <base> to refer to the globally configured base DN. The string <base> is replaced with the directory base DN.
**Default**— *o=Network,<base>*
**Editing Level**—Expert

`enable-directory-eventing`—(Optional) Enables or disables automatic discovery of changes in the SAE configuration data.

**Default**— Enabled
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Normal

# shared sae configuration ldap directory-eventing

### Syntax

```
shared sae configuration ldap directory-eventing {
     timeout timeout;
     dispatcher-pool-size dispatcher-pool-size;
}
```

### Hierarchy Level

```
[edit shared sae configuration ldap directory-eventing]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure a timeout for SAE directory eventing, and specify the number of events that the SAE can receive from the directory simultaneously.

### Options

`timeout` *`timeout`*— Maximum time that the directory eventing system waits for the directory to respond.

**Value**— Number of seconds in the range 1–2147483647
**Default**— No value
**Editing Level**—Basic

`dispatcher-pool-size` *`dispatcher-pool-size`*— Number of events that the SAE can receive from the directory simultaneously.

**Value**— Integer in the range 1–2147483647
**Default**— No value
**Editing Level**—Expert

### Required Privilege Level

system

### Required Editing Level

Expert

# shared sae configuration ldap persistent-login-cache

### Syntax

```
shared sae configuration ldap persistent-login-cache {
     dn dn;
     server-address [server-address...];
     port-number port-number;
     authentication-dn authentication-dn;
     password password;
     directory-eventing;
     polling-interval polling-interval;
     blacklist;
     (ldaps);
}
```

### Hierarchy Level

```
[edit shared sae configuration ldap persistent-login-cache]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure the LDAP connection from the SAE to the directory in which persistent login cache data is stored.

### Options

`dn` *dn*— Subtree in the directory in which persistent login cache data is stored.

**Value**— <DN>. You can use the special value <base> to refer to the globally configured base DN. The string <base> is replaced with the directory base DN.
**Default**— o=authCache,<base>
**Editing Level**—Normal

`server-address [`*server-address*`...]`—(Optional) Directory server that stores information.

**Value**— IP address or hostname. For multiple directory servers, enclose the addresses or hostnames in quotes and separate addresses or names with a space. For example: "127.153.27.1 192.168.0.1".
**Default**— No value
**Editing Level**—Normal

`port-number` *`port-number`*—(Optional) Directory port number

**Value**—Integer in the range -2147483648–2147483647
**Default**— 389
**Editing Level**—Normal

`authentication-dn` *`authentication-dn`*—(Optional) DN that the SAE uses to authenticate access to the directory server. The specified directory entry must exist and have read access to all attributes.

For subscriber data, the entry must have write access if subscribers are allowed to customize their subscription profiles.

**Value**— <DN>. You can use the special value <base> to refer to the globally configured base DN. The string <base> is replaced with the directory base DN.
**Default**— No value
**Editing Level**—Normal

`password` *`password`*—(Optional) Password used to authenticate access to the directory server. You must configure the password in the directory to authenticate read access to the directory.

**Value**— Text string or base64 string.

For authentication to access subscriber data, the password must match the value of the userPassword attribute of the authentication DN.

**Default**— No value
**Editing Level**—Normal

`directory-eventing`—(Optional) Enables or disables automatic discovery of changes to directory data.

For subscriber data:

- If enabled, changes in the subscriber profile or subscriptions take effect automatically while the subscriber is logged in.
- If disabled, changes in the subscriber profile or subscriptions do not take effect until the next time the subscriber logs in.

For service data:

- If enabled, changes in service definitions take effect automatically. If a changed service is in use, all service instances are deactivated and then reactivated with the modified settings. Consequently, service may be affected for subscribers who are logged in at the time of the modification.

If disabled, changes in service definitions do not take effect until you restart the SAE.

**Default**— Disabled
**Editing Level**—Advanced

`polling-interval` *`polling-interval`*— Frequency for checking the directory for changes.

**Value**— Number of seconds in the range 15–86400
**Default**— 30
**Editing Level**—Advanced

`blacklist`—(Optional) Specifies whether the directory monitoring system prevents connection to a directory if the directory fails to respond during 10 polling intervals.

**Value**— true or false
**Default**— true
**Editing Level**—Advanced

`ldaps`—Enables LDAPS as the secure protocol for connections to the directory server.

**Value**— ldaps—Enable LDAPS
**Default**— Disabled
**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Normal

# shared sae configuration ldap policy-data

### Syntax

```
shared sae configuration ldap policy-data {
     policy-dn policy-dn;
     parameter-dn parameter-dn;
     external-parent-group-dn external-parent-group-dn;
     directory-eventing;
     polling-interval polling-interval;
}
```

### Hierarchy Level

```
[edit shared sae configuration ldap policy-data]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure the LDAP connection from the SAE to the directory in which service data is stored.

### Options

`policy-dn` *`policy-dn`*— Subtree in the directory in which policy data is stored.

**Value**— <DN>. You can use the special value <base> to refer to the globally configured base DN. The string <base> is replaced with the directory base DN.
**Default**— *o=Policies,<base>*
**Editing Level**—Normal

`parameter-dn` *`parameter-dn`*— Subtree in the directory in which policy parameter data is stored.

**Value**— <DN>. You can use the special value <base> to refer to the globally configured base DN. The string <base> is replaced with the directory base DN.
**Default**— *o=Parameters,<base>*
**Editing Level**—Normal

`external-parent-group-dn` *`external-parent-group-dn`*— Subtree in the directory in which external parent groups are stored.

**Value**— <DN>. You can use the special value <base> to refer to the globally configured base DN. The string <base> is replaced with the directory base DN.
**Default**— *o=ExternalParentGroups,<base>*
**Editing Level**—Normal

`directory-eventing`—(Optional) Enables or disables automatic discovery of changes to directory data.

- If enabled, changes in policy definitions take effect automatically. If a changed policy is in use, all policy instances are deactivated and then reactivated with the modified settings. Consequently, service may be affected for subscribers who are logged in when the change is made.
- If disabled, changes in policy definitions do not take effect until you restart the SAE.

  **Default**— Disabled
  **Editing Level**—Advanced

`polling-interval` *`polling-interval`*— Frequency for checking the directory for changes.

**Value**— Number of seconds in the range 15–86400
**Default**— 30
**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Normal

# shared sae configuration ldap service-data

## Syntax

```
shared sae configuration ldap service-data {
     dn dn;
     server-address [server-address...];
     port-number port-number;
     authentication-dn authentication-dn;
     password password;
     directory-eventing;
     polling-interval polling-interval;
     blacklist;
     (ldaps);
}
```

## Hierarchy Level

```
[edit shared sae configuration ldap service-data]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure the LDAP connection from the SAE to the directory in which service data is stored.

## Options

`dn` *`dn`*— Subtree in the directory in which service data is stored.

The SAE loads service definitions on startup and when service reloading is requested.

**Value**— <DN>. You can use the special value <base> to refer to the globally configured base DN. The string <base> is replaced with the directory base DN.
**Default**— <base>
**Editing Level**—Normal

`server-address [`*`server-address...`*`]`—(Optional) Directory server that stores information.

**Value**— IP address or hostname. For multiple directory servers, enclose the addresses or hostnames in quotes and separate addresses or names with a space. For example: "127.153.27.1 192.168.0.1".
**Default**— No value
**Editing Level**—Normal

`port-number` *`port-number`*—(Optional) Directory port number

**Value**—Integer in the range -2147483648–2147483647
**Default**— 389
**Editing Level**—Normal

`authentication-dn` *`authentication-dn`*—(Optional) DN that the SAE uses to authenticate access to the directory server. The specified directory entry must exist and have read access to all attributes.

For subscriber data, the entry must have write access if subscribers are allowed to customize their subscription profiles.

**Value**— <DN>. You can use the special value <base> to refer to the globally configured base DN. The string <base> is replaced with the directory base DN.
**Default**— No value
**Editing Level**—Normal

`password` *`password`*—(Optional) Password used to authenticate access to the directory server. You must configure the password in the directory to authenticate read access to the directory.

**Value**— Text string or base64 string.

For authentication to access subscriber data, the password must match the value of the userPassword attribute of the authentication DN.

**Default**— No value
**Editing Level**—Normal

`directory-eventing`—(Optional) Enables or disables automatic discovery of changes to directory data.

For subscriber data:

- If enabled, changes in the subscriber profile or subscriptions take effect automatically while the subscriber is logged in.
- If disabled, changes in the subscriber profile or subscriptions do not take effect until the next time the subscriber logs in.

For service data:

- If enabled, changes in service definitions take effect automatically. If a changed service is in use, all service instances are deactivated and then reactivated with the modified settings. Consequently, service may be affected for subscribers who are logged in at the time of the modification.
- If disabled, changes in service definitions do not take effect until you restart the SAE.

**Default**— Disabled
**Editing Level**—Advanced

`polling-interval` *`polling-interval`*— Frequency for checking the directory for changes.

**Value**— Number of seconds in the range 15–86400
**Default**— 30
**Editing Level**—Advanced

`blacklist`—(Optional) Specifies whether the directory monitoring system prevents connection to a directory if the directory fails to respond during 10 polling intervals.

**Value**— true or false
**Default**— true
**Editing Level**—Advanced

`ldaps`—Enables LDAPS as the secure protocol for connections to the directory server.

**Value**— ldaps—Enable LDAPS
**Default**— Disabled
**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Normal

# shared sae configuration ldap subscriber-data

## Syntax

```
shared sae configuration ldap subscriber-data {
     subscription-loading-filter (subscriberRefFilter | objectClassFilter);
     load-subscriber-schedules;
     persistent-sessions;
     login-cache-dn login-cache-dn;
     session-cache-dn session-cache-dn;
     dn dn;
     server-address [server-address...];
     port-number port-number;
     authentication-dn authentication-dn;
     password password;
     directory-eventing;
     polling-interval polling-interval;
     blacklist;
     (ldaps);
}
```

## Hierarchy Level

```
[edit shared sae configuration ldap subscriber-data]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure the LDAP connection from the SAE to the directory in which subscriber data is stored.

## Options

`subscription-loading-filter (subscriberRefFilter | objectClassFilter)`— Filter that the SAE uses to search for subscriptions in the directory when the SAE loads a subscription.

**Value**— One of the following:

- subscriberRefFilter—Subscriber reference filter. The SAE runs a search based on the subscriberRef attribute in the umcServiceProfile object, which is the base object class of the service profile hierarchy. The subscriberRef attribute contains a DN that points to the parent of the subscriber object.
- objectClassFilter—Subscription Objectclass filter. The SAE performs a one-level search with the directory entry, which represents the subscriber folder as the base DN. The search filter is (objectClass=sspServiceProfile). This method can be slow if you have a large number of subscription entries within the subscriber folder subtree.

**Default**— subscriberRefFilter

**Editing Level**—Normal

`load-subscriber-schedules`—(Optional) Enable or disable loading of subscriber schedules.

**Default**— Enabled
**Editing Level**—Normal

`persistent-sessions`—(Optional) Load existing persistent sessions and schedules when starting or recovering a user session.

**Default**—false
**Editing Level**—Normal

`login-cache-dn` *`login-cache-dn`*— Subtree in the directory where subscriber login information is cached. When a subscriber logs in to a residential portal, the SAE searches subscriber profiles by mapping the realm of the login name to a retailer object found below the search base.

**Value**— <DN>. You can use the special value <base> to refer to the globally configured base DN. The string <base> is replaced with the directory base DN.
**Default**— *o=userProfileCache,<base>*
**Editing Level**—Normal

`session-cache-dn` *`session-cache-dn`*— Subtree in the directory where persistent session data is cached.

**Value**— <DN>. You can use the special value <base> to refer to the globally configured base DN. The string <base> is replaced with the directory base DN.
**Default**— *o=PersistentSessions,<base>*
**Editing Level**—Normal

`dn` *`dn`*— Subtree in the directory in which subscriber data is stored.

When a subscriber logs in to a residential portal, the SAE searches subscriber profiles by mapping the realm of the login name to a retailer object found below the DN.

**Value**— <DN>. You can use the special value <base> to refer to the globally configured base DN. The string <base> is replaced with the directory base DN.
**Default**— o=Users,<base>
**Editing Level**—Normal

`server-address [server-address...]`—(Optional) Directory server that stores information.

**Value**— IP address or hostname. For multiple directory servers, enclose the addresses or hostnames in quotes and separate addresses or names with a space. For example: "127.153.27.1 192.168.0.1".
**Default**— No value
**Editing Level**—Normal

`port-number port-number`—(Optional) Directory port number

**Value**—Integer in the range -2147483648–2147483647
**Default**— 389
**Editing Level**—Normal

`authentication-dn authentication-dn`—(Optional) DN that the SAE uses to authenticate access to the directory server. The specified directory entry must exist and have read access to all attributes.

For subscriber data, the entry must have write access if subscribers are allowed to customize their subscription profiles.

**Value**— <DN>. You can use the special value <base> to refer to the globally configured base DN. The string <base> is replaced with the directory base DN.
**Default**— No value
**Editing Level**—Normal

`password password`—(Optional) Password used to authenticate access to the directory server. You must configure the password in the directory to authenticate read access to the directory.

**Value**— Text string or base64 string.

For authentication to access subscriber data, the password must match the value of the userPassword attribute of the authentication DN.

**Default**— No value
**Editing Level**—Normal

`directory-eventing`—(Optional) Enables or disables automatic discovery of changes to directory data.

For subscriber data:

If enabled, changes in the subscriber profile or subscriptions take effect automatically while the subscriber is logged in.
- If disabled, changes in the subscriber profile or subscriptions do not take effect until the next time the subscriber logs in.

For service data:

- If enabled, changes in service definitions take effect automatically. If a changed service is in use, all service instances are deactivated and then reactivated with the modified settings. Consequently, service may be affected for subscribers who are logged in at the time of the modification.
- If disabled, changes in service definitions do not take effect until you restart the SAE.

**Default**— Disabled
**Editing Level**—Advanced

`polling-interval` *`polling-interval`*— Frequency for checking the directory for changes.

**Value**— Number of seconds in the range 15–86400
**Default**— 30
**Editing Level**—Advanced

`blacklist`—(Optional) Specifies whether the directory monitoring system prevents connection to a directory if the directory fails to respond during 10 polling intervals.

**Value**— true or false
**Default**— true
**Editing Level**—Advanced

`ldaps`—Enables LDAPS as the secure protocol for connections to the directory server.

**Value**— ldaps—Enable LDAPS
**Default**— Disabled
**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Normal

# shared sae configuration license-manager client

## Syntax

```
shared sae configuration license-manager client {
     type type;
     cache cache;
}
```

## Hierarchy Level

```
[edit shared sae configuration license-manager client]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure the license manager client.

## Options

`type` *`type`*— Type of the license client.

**Value**— SDX is currently the only valid value
**Default**— SDX
**Editing Level**—Expert

`cache` *`cache`*— Path to a cache file.

**Value**— Valid path
**Default**— var/run/lic_cache
**Editing Level**—Expert

## Required Privilege Level

system

## Required Editing Level

Expert

# shared sae configuration license-manager directory-access

### Syntax

```
shared sae configuration license-manager directory-access {
     server-address server-address;
     server-port server-port;
     license-dn license-dn;
     authentication-dn authentication-dn;
     password password;
     (ldaps);
     connection-manager-id connection-manager-id;
     event-base-dn event-base-dn;
     signature-dn signature-dn;
     snmp-agent;
}
```

### Hierarchy Level

```
[edit shared sae configuration license-manager directory-access]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure directory access to the license manager.

### Options

`server-address` *`server-address`*—(Optional) IP addresses or hostnames of the directory server that stores licensing data.

**Value**— IP address or hostname. For multiple directory servers, enclose the addresses or hostnames in quotes and separate addresses or names with a space.

**Default**— No value
**Editing Level**—Normal

`server-port` *`server-port`*—(Optional) Port number of the LDAP connection to the directory server that stores licensing data.

**Value**— Port number in the range 0–65535
**Default**— 389
**Editing Level**—Normal

`license-dn` *`license-dn`*—(Optional) Subtree in the directory where licensing information is stored. The SAE searches for the license key below this path.

**Value**— <DN>. The string <base> is replaced with the directory base DN
**Default**— ou=Licenses, o=Management, <base>
**Editing Level**—Normal

`authentication-dn` *`authentication-dn`*—(Optional) DN the SAE uses to authenticate access to the directory server.

**Value**— <DN>. The string <base> is replaced with the directory base DN
**Default**— No value
**Editing Level**—Normal

`password` *`password`*—(Optional) Password used to authenticate access to the directory.

**Value**— Text string or Base64 string
**Default**— No value
**Editing Level**—Normal

Enables or disables LDAPS as the secure protocol for connections to the directory server that stores license data.

**Value**

- `ldaps`—

**Default**— Disabled
**Editing Level**—Normal

`connection-manager-id` *`connection-manager-id`*— DES connection manager within the Java Naming and Directory Interface (JNDI) framework.

**Value**— Text
**Default**— LICENSE_MANAGER
**Editing Level**—Expert

`event-base-dn` *`event-base-dn`*—(Optional) Directory eventing base DN for the license manager data.

**Value**— <DN>. The string <base> is replaced with the directory base DN
**Default**— No value
**Editing Level**—Expert

`signature-dn` *`signature-dn`*—(Optional) DN of the entry that specifies the LDAP schema attribute usedDirectory. This attribute identifies the type of directory, such as openLDAP or DirX, on which the license data is stored.

**Value**— <DN>. The string <base> is replaced with the directory base DN
**Default**— No value
**Editing Level**—Expert

`snmp-agent`—(Optional) Specifies whether the SRC SNMP agent exports MIBs for this directory connection.

**Default**— Disabled
**Editing Level**—Normal

### Required Privilege Level

system

### Required Editing Level

Basic

# shared sae configuration logger

## Syntax

`shared sae configuration logger` *`name`* `...`

## Hierarchy Level

`[edit shared sae configuration logger]`

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Create a logging configuration for the SAE.

## Options

`name` *`name`*— Name of the logging configuration.

**Value**—Text

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration logger *name* file

### Syntax

```
shared sae configuration logger name file {
     filter filter;
     device-filter-key device-filter-key;
     filename filename;
     rollover-filename rollover-filename;
     maximum-file-size maximum-file-size;
}
```

### Hierarchy Level

```
[edit shared sae configuration logger name file]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure logging of messages to a file.

`filter filter`—(Optional) Filter to define which event messages the software logs or ignores. Filters can specify the logging level, such as debug, or can specify expressions. For information about expressions, see the documentation that describes how to configure logging.

**Value**— Log filter
**Default**— The default value is different for each type of component.
**Editing Level**—Basic

`device-filter-key device-filter-key`—(Optional) Filter the DEBUG logs specific to network device. The filtering can be done based on combinations of parameters namely router-name/interface-name/login-name. These parameters can be associated using AND (&) or OR (|) operators. Syntax: set device-filter-key (router-name=<val> & interface-name=<val> | login-name=<val> All three parameters are optional. Absence of a parameter would indicate match ANY. Example: set device-filter-key (router-name=<val>) would indicate match debug logs based on the router-name only irrespective of the interface-name or login-name. Note: 1. "device-filter-key" will NOT filter info/error/warning logs. 2. This version supports network device specific logging for COPs drivers only

**Value**— Log network device filter
**Default**— The default value is different for each type of component.
**Editing Level**—Basic

`filename filename`— Absolute path of the filename that contains the current logs.

**Note:** Make sure that the user under which the J2EE application server or Web application server runs has write access to this folder. If this user does not have write access to the default folder, configure the component or application to write logs in folders to which the user has write access.

**Value**— Filename
**Default**— By default, SRC components and applications write log files in the folder in which the component or application is started.
**Editing Level**—Basic

`rollover-filename` *`rollover-filename`*—(Optional) Absolute path of the filename that contains the log history. When the log file reaches the maximum size, the software closes the log file and renames it with the name you specify for the rollover file. If a previous rollover file exists, the software overwrites it. The software then reopens the log file and continues to save event messages in it.

**Value**— Path of filename

Example—/opt/UMC/sae/var/log/sae.alt

**Default**— The default value is different for each type of component.
**Editing Level**—Normal

`maximum-file-size` *`maximum-file-size`*—(Optional) Maximum size of the log file and the rollover file.

Do not set the maximum file size to a value greater than the available disk space.

**Value**—Integer in the range 0–10000000 kbytes
**Default**— 1000000
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration logger *name* syslog

### Syntax

```
shared sae configuration logger name syslog {
     filter filter;
     host host;
     port port;
     facility facility;
     format format;
}
```

### Hierarchy Level

```
[edit shared sae configuration logger name syslog]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure logging of messages to system logging.

`filter` *`filter`*—(Optional) Filter to define which event messages the software logs or ignores. Filters can specify the logging level, such as debug, or can specify expressions. For information about expressions, see the documentation that describes how to configure logging.

**Value**— Log filter
**Default**— The default value is different for each type of component.
**Editing Level**—Basic

`host` *`host`*— IP address or name of a host that collects event messages by means of a standard system logging daemon.

**Value**— IP address or hostname
**Default**—loghost
**Editing Level**—Basic

`port` *`port`*—(Optional) Port number for system logging daemon.

**Value**— Port number in the range of 0–65535
**Default**— 514
**Editing Level**—Basic

`facility` *`facility`*

—(Optional) Type of system log in accordance with the system logging protocol.

**Value**—Integer in the range 0–23
**Default**— 3
**Editing Level**—Advanced

`format` *`format`*—(Optional) MessageFormat string that specifies how the information in an event message is printed. (The strings {#} are replaced with the log information [...]).

**Value**— MessageFormat string as specified in http://java.sun.com/j2se/1.4.2/docs/api/java/text/MessageFormat.html.

The fields available for events are:

- 0—Time and date of the event
- 1—Name of the thread generating the event
- 2—Text message of the event
- 3—Category of the event
- 4—Priority of the event

**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration login-registration

## Syntax

```
shared sae configuration login-registration {
     registration-authentication;
}
```

## Hierarchy Level

```
[edit shared sae configuration login-registration]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Enable the authentication of registered username/password pairs.

## Options

`registration-authentication`—(Optional) Enables the authentication of registered username/password pairs. Enable this option if your authentication server does not allow authentication while a session for the authenticated username is active.

**Default**—
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Normal

# shared sae configuration nic-proxy-configuration

## Syntax

```
shared sae configuration nic-proxy-configuration name {
}
```

## Hierarchy Level

```
[edit shared sae configuration nic-proxy-configuration]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure a NIC proxy.

## Options

`name` *`name`*— Name of the NIC proxy configuration.

**Value**—Text

## Required Privilege Level

system

## Required Editing Level

Normal

# shared sae configuration nic-proxy-configuration *name* cache

### Syntax

```
shared sae configuration nic-proxy-configuration name cache {
     cache-size cache-size;
     cache-cleanup-interval cache-cleanup-interval;
     cache-entry-age cache-entry-age;
}
```

### Hierarchy Level

```
[edit shared sae configuration nic-proxy-configuration name cache]
```

### Description

Configure the NIC proxy cache properties. You can modify cache properties for the NIC proxy to optimize the resolution performance for your network configuration and system resources. Typically, you can use the default settings for the cache properties.

`cache-size` *`cache-size`*—(Optional) Maximum size of the cache in which the NIC proxy retains data. If you decrease the cache size or disable the cache while the NIC proxy is running, the NIC proxy removes entries in order of descending age until the cache size meets the new limit.

**Value**— Integer in the range 0–2147483647
**Default**—10000
**Editing Level**—Advanced

`cache-cleanup-interval` *`cache-cleanup-interval`*— Time interval at which the NIC proxy removes expired entries from its cache.

**Value**— Number of seconds in the range 5–2147483
**Default**—15
**Editing Level**—Advanced

`cache-entry-age` *`cache-entry-age`*—(Optional) Maximum time that the NIC proxy can cache an entry. The NIC proxy compares this property with the life expectancy of each entry and uses the lower value to determine when to remove the entry.

**Value**— Number of seconds in the range 0–4294967295

- 0 or unspecified—Life expectancy of the data, which determines expiration of data
- Other values—Actual time that the NIC proxy caches entries

**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Advanced

# shared sae configuration nic-proxy-configuration *name* nic-host-selection

### Syntax

```
shared sae configuration nic-proxy-configuration name nic-host-selection {
     groups [groups...];
     selection-criteria (roundRobin | randomPick | priorityList);
}
```

### Hierarchy Level

```
[edit shared sae configuration nic-proxy-configuration name nic-host-selection]
```

### Description

Configure the mechanism that a NIC proxy uses to select NIC system if multiple systems are available. You use NIC host selection when you use NIC replication.

`groups [groups...]`—(Optional) List of groups of NIC hosts that the NIC proxy can contact for resolution requests.

**Value**— Names of groups.
**Default**— No value
**Editing Level**—Normal

`selection-criteria (roundRobin | randomPick | priorityList)`— Selection criteria that the NIC proxy uses to determine which NIC host to contact. Configure selection criteria if you configure more than one group.

**Value**— One of the following criteria:

- roundRobin—NIC proxy selects NIC hosts in a fixed, cyclic order. The NIC proxy always selects the next host in the list.
- randomPick—NIC proxy selects NIC hosts randomly from the list.
- priorityList—NIC proxy selects NIC hosts according to their assigned priorities in the list. If the host with the highest priority in the list is not available, the NIC proxy tries the host with the next-highest priority, and so on.

Use round-robin or random pick to distribute resolution requests among NIC hosts. Use priority list if you prefer to use a particular NIC host; for example, you may reduce operating cost by using a local NIC host.
**Default**— roundRobin
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Normal

# shared sae configuration nic-proxy-configuration *name* nic-host-selection blacklisting

### Syntax

```
shared sae configuration nic-proxy-configuration name nic-host-selection blacklisting
{
     try-next-system-on-error;
     number-of-retries-before-blacklisting number-of-retries-before-blacklisting;
     blacklist-retry-interval blacklist-retry-interval;
}
```

### Hierarchy Level

```
[edit shared sae configuration nic-proxy-configuration name nic-host-
selection blacklisting]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure how to handle nonresponsive NIC hosts. When a NIC host does not respond, it is blacklisted which means that other NIC hosts are contacted until the blacklisted host becomes available again.

### Options

`try-next-system-on-error`—(Optional) Specifies whether or not the NIC proxy should contact the next specified NIC host if a NIC host is determined to be unavailable. Configure this property only if you configure more than one group.

**Default**—true
**Editing Level**—Normal

`number-of-retries-before-blacklisting` *`number-of-retries-before-blacklisting`*— Number of times the NIC proxy tries to communicate with a NIC host before the NIC proxy stops communicating with the NIC host for a period of time.

**Value**—Integer in the range 0–2147483647
**Default**—3
**Editing Level**—Normal

`blacklist-retry-interval` *`blacklist-retry-interval`*— Interval at which the NIC proxy attempts to connect to an unavailable NIC host.

**Value**—Integer in the range 15–2147483647 s
**Default**—15
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration nic-proxy-configuration *name* resolution

### Syntax

```
shared sae configuration nic-proxy-configuration name resolution {
     resolver-name resolver-name;
     key-type key-type;
     value-type value-type;
     expect-multiple-values;
     constraints constraints;
}
```

### Hierarchy Level

```
[edit shared sae configuration nic-proxy-configuration name resolution]
```

### Description

Configure properties for a NIC proxy (NIC locator), the NIC component that requests information on behalf of an application.

`resolver-name` *`resolver-name`*— NIC resolver that the NIC proxy uses. This resolver must be the same as one that is configured on the NIC host.

**Value**— Path to the NIC resolver.

Example—/realms/ip/A1,/realms/dn/A1.

**Default**— No value
**Editing Level**—Basic

`key-type` *`key-type`*— Type of data used that the key provides for the NIC resolution. You can provide a qualifier to a data type to distinguish between different instances of a data type in a resolution scenario, or to provide information about a data type to clarify the use of that data type in a resolution.

**Value**— One of the following types:

- Ip—Subscriber's IP address
- Vr—Virtual router
- Interface—Name of router's interface
- InterfaceId—Identifier of an interface on the router
- Dn—LDAP distinguished name for subscriber
- LoginName—Subscriber login ID
- AnyString—Other information

To qualify data types, enter a qualifier within parentheses.

Example—LoginName(username).

**Default**— No value
**Editing Level**—Basic

`value-type` *`value-type`*— Type of value to be returned in the resolution. The value type varies according to the application that uses the NIC proxy.

**Value**— One of the following types:

- SaeId—SAE server ID
- LoginName—Subscriber login ID
- AnyString—Other information

To qualify data types, enter a qualifier within parentheses.

Example—LoginName(username).

**Default**— No value
**Editing Level**—Basic

`expect-multiple-values`—(Optional) Specifies whether or not the key can have multiple corresponding values.

**Editing Level**—Basic

`constraints` *`constraints`*—(Optional) Data type that a resolver uses during the resolution process. A constraint represents a condition that must or may be satisfied before the next stage of the resolution process can proceed.

Configure a constraint only if the constraint will be provided by the application in the resolution request. Typically, you do not need to configure constraints.

**Value**— Data types of constraints specified for the NIC resolution. Separate data types with commas.
**Default**— No value
**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Normal

# shared sae configuration nic-proxy-configuration *name* test-nic-bindings

### Syntax

```
shared sae configuration nic-proxy-configuration name test-nic-bindings {
     use-test-bindings;
}
```

### Hierarchy Level

```
[edit shared sae configuration nic-proxy-configuration name test-nic-bindings]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure key-value mappings to be used to test a NIC resolution.

### Options

`use-test-bindings`—(Optional) Test the NIC resolutions without having to configure or run a NIC host. The values returned are those configured in the key-values property.

**Default**—false
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Basic

# shared sae configuration nic-proxy-configuration *name* test-nic-bindings key-values

### Syntax

```
shared sae configuration nic-proxy-configuration name test-nic-bindings key-
values name {
     value;
}
```

### Hierarchy Level

```
[edit shared sae configuration nic-proxy-configuration name test-nic-bindings key-
values]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure keys and associated values to use for testing. Define all of values to be returned for specified keys.

### Options

`name` *`name`*— Name of the key.

**Value**—Text

*`value`*— Value of the key.

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Advanced

# shared sae configuration plug-ins

## Syntax

```
shared sae configuration plug-ins {
     plugin-publisher-auth-queue plugin-publisher-auth-queue;
     plugin-publisher-tracking-queue plugin-publisher-tracking-queue;
}
```

## Hierarchy Level

```
[edit shared sae configuration plug-ins]
```

## Options

`plugin-publisher-auth-queue` *`plugin-publisher-auth-queue`*—

**Value**—Integer in the range -2147483648–2147483647
**Default**—20
**Editing Level**—Advanced

`plugin-publisher-tracking-queue` *`plugin-publisher-tracking-queue`*—

**Value**—Integer in the range -2147483648–2147483647
**Default**—20
**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Normal

# shared sae configuration plug-ins event-publishers

### Syntax

```
shared sae configuration plug-ins event-publishers {
     subscriber-authorization [subscriber-authorization...];
     default-retailer-authentication [default-retailer-authentication...];
     default-vr-authentication [default-vr-authentication...];
     default-retailer-dhcp-authentication [default-retailer-dhcp-authentication...];
     dhcp-authorization [dhcp-authorization...];
     service-authorization [service-authorization...];
     subscription-authorization [subscription-authorization...];
     subscriber-tracking [subscriber-tracking...];
     service-tracking [service-tracking...];
     interface-tracking [interface-tracking...];
}
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins event-publishers]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure event publishers. Event publishers tell the SAE which events to send to which plug-in.

### Options

`subscriber-authorization [`*`subscriber-authorization...`*`]`—(Optional) Authorize all subscriber sessions. These plug-in instances are called after a subscriber profile is loaded but before a subscriber session is started. The SAE calls these plug-ins for each subscriber who logs in to a portal.

These plug-in instances cannot perform authentication because passwords are not available at this point in the login process. Therefore if you specify plug-ins that perform authentication, the login process will fail.

**Value**— List of plug-ins
**Default**— No value
**Introduced in**—1.0.0
**Editing Level**—Normal

`default-retailer-authentication [`*`default-retailer-authentication...`*`]`—(Optional) Authenticate subscribers who are assigned to retailer objects that do not specify a an authentication plug-in. These plug-ins are called when the subscriber logs in to a domain. The authentication process for portal logins maps the supplied domain name to a retailer

object.

If you do not specify default retailer authentication plug-ins or retailer-specific plug-ins, subscribers are admitted without authentication.

**Value**— List of plug-ins
**Default**— No value
**Editing Level**—Normal

`default-vr-authentication [`*`default-vr-authentication`*`...]`—(Optional) Authenticate subscribers who are assigned to a VR that do not specify a an authentication plug-in. These plug-ins are called when the subscriber logs in to a domain.

If you do not specify default vr authentication plug-ins or retailer-specific plug-ins, subscribers are admitted without authentication.

**Value**— List of plug-ins
**Default**— No value
**Editing Level**—Normal

`default-retailer-dhcp-authentication [`*`default-retailer-dhcp-authentication`*`...]`—(Optional) Authenticate DHCP address requests for subscribers who are assigned to retailer objects that do not specify a DHCP authentication plug-in. These plug-ins are called when the SAE receives a DHCP discover request from a client that has its username and password cached in the SAE. The username and password can either be cached persistently in the directory or temporarily in memory during a switch from an unauthenticated to an authenticated address.

**Value**— List of plug-ins
**Default**— No value
**Editing Level**—Normal

`dhcp-authorization [`*`dhcp-authorization`*`...]`—(Optional) Authorize all DHCP address requests for all DHCP subscribers who log in to a portal. These plug-ins are called for both authenticated and unathenticated address requests.

**Value**— List of plug-ins
**Default**— No value
**Editing Level**—Normal

`service-authorization [`*`service-authorization`*`...]`—(Optional) Authorize all service sessions. These plug-ins are called before a service session is started, and are called for every service session started by any subscriber.

**Value**— List of plug-ins
**Default**— No value

**Editing Level**—Normal

`subscription-authorization [subscription-authorization...]`—(Optional) Authorize subscribers to change their subscriptions. These plug-ins are called when a subscriber tries to modify, subscribe to, or unsubscribe from a subscription.

**Value**— List of plug-ins
**Default**— No value
**Editing Level**—Normal

`subscriber-tracking [subscriber-tracking...]`—(Optional) Collect accounting data for all subscriber sessions. These plug-ins are called for every subscriber session that is started and stopped. They are called after a subscriber session has started and when the session is stopped.

**Value**— List of plug-ins
**Default**— No value
**Editing Level**—Normal

`service-tracking [service-tracking...]`—(Optional) Collect accounting data for all service sessions. These plug-ins are called for every service session that is started and stopped. They are called after a service session starts, when the service session stops, and during interim updates.

**Value**— List of plug-ins
**Default**— No value
**Editing Level**—Normal

`interface-tracking [interface-tracking...]`—(Optional) Collect accounting data for all interfaces that the SAE manages. These plug-ins are called for every managed interface that is started and stopped. They are called after an interface comes up, when new policies are installed on the interface, and when the interface goes down. You can include NIC SAE plug-ins, which cause the SAE to send interface tracking events to the NIC SAE plug-in agent.

**Value**— List of plug-ins
**Default**— No value
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Normal

# shared sae configuration plug-ins event-publishers device-type-authentication

### Syntax

```
shared sae configuration plug-ins event-publishers device-type-authentication {
     junos [junos...];
     junos-dmi [junos-dmi...];
     junos-ise [junos-ise...];
     junose [junose...];
     pcmm [pcmm...];
     third-party [third-party...];
}
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins event-publishers device-type-authentication]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Options

`junos [junos...]`—(Optional) Authenticate subscriber sessions logging in through a JUNOS(BEEP) device.

**Value**—Text
**Editing Level**—Normal

`junos-dmi [junos-dmi...]`—(Optional) Authenticate subscriber sessions logging in through a JUNOS(DMI) device.

**Value**—Text
**Editing Level**—Normal

`junos-ise [junos-ise...]`—(Optional) [Alias: intelligent-service-edge ] Authenticate subscriber sessions logging in through a JUNOS-JSRC device.

**Value**—Text
**Editing Level**—Normal

`junose [junose...]`—(Optional) Authenticate subscriber sessions logging in through a JUNOSe (COPS-PR) device.

**Value**—Text

**Editing Level**—Normal

`pcmm [pcmm...]`—(Optional) Authenticate subscriber sessions logging in through a PCMM device.

**Value**—Text
**Editing Level**—Normal

`third-party [third-party...]`—(Optional) Authenticate subscriber sessions logging in through a JUNOS(BEEP) device.

**Value**—Text
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins manager

## Syntax

```
shared sae configuration plug-ins manager {
     threads threads;
}
```

## Hierarchy Level

```
[edit shared sae configuration plug-ins manager]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure the number of threads used for plug-in synchronization.

## Options

`threads` *`threads`*— Number of threads that the SAE maintains for plug-in synchronization.

**Value**— Integer in the range 0–100
**Default**— 5
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Expert

# shared sae configuration plug-ins name

### Syntax

```
shared sae configuration plug-ins name name ...
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins name]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure a plug-in. A plug-in configuration describes a particular plug-in that can handle events that it receives from the SAE.

- An authorization plug-in configuration might perform RADIUS authentication when it receives a subscriber login event.
- A tracking plug-in might write accounting information to a file when it receives service session events.

For each type of plug-in you can create multiple instances that contain different configurations of the plug-in.

### Alias

pool

### Options

`name` *`name`*— Name of the plug-in configuration.

**Value**—Text

### Required Privilege Level

system

### Required Editing Level

Normal

# shared sae configuration plug-ins name *name* acp-interface-listener

## Syntax

```
shared sae configuration plug-ins name name acp-interface-listener {
     ldap-server ldap-server;
     bind-dn bind-dn;
     bind-password bind-password;
     (ldaps);
     congestion-points-base-dn congestion-points-base-dn;
     admission-control-base-dn admission-control-base-dn;
     timeout timeout;
     acp-remote-corba-ior acp-remote-corba-ior;
}
```

## Hierarchy Level

```
[edit shared sae configuration plug-ins name name acp-interface-listener]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure a hosted internal plug-in for SRC-ACP that the SAE uses to monitor the state of interfaces on a VR for backbone congestion points.

`ldap-server` *`ldap-server`*— IP address or name of the host that supports the directory that contains backbone service definitions and network interfaces.

**Value**— IP address or name of the host optionally followed by a port number. Use the format <host>:<port number>. For example, 10.227.0.0:389
**Default**— No value
**Editing Level**—Normal

`bind-dn` *`bind-dn`*— DN of the directory entry that defines the username with which the plug-in accesses the directory.

**Value**— <DN>. You can use the special value <base> to refer to the globally configured base DN. The string <base> is replaced with the directory base DN.
**Default**— No value
**Editing Level**—Normal

`bind-password` *`bind-password`*— Password with which the plug-in accesses the directory.

**Value**— Text string

**Default**— No value
**Editing Level**—Normal

`ldaps`—Enables LDAPS as the secure protocol for connections to the directory server.

**Value**— ldaps—Enable LDAPS
**Default**— Disabled
**Editing Level**—Advanced

`congestion-points-base-dn` *`congestion-points-base-dn`*— DN at which SRC-ACP stores backbone congestion points.

**Value**— <DN>. You can use the special value <base> to refer to the globally configured base DN. The string <base> is replaced with the directory base DN.
**Default**— No value
**Editing Level**—Normal

`admission-control-base-dn` *`admission-control-base-dn`*— DN at which SRC-ACP stores edge congestion points.

**Value**— <DN>. You can use the special value <base> to refer to the globally configured base DN. The string <base> is replaced with the directory base DN.
**Default**— No value
**Editing Level**—Normal

`timeout` *`timeout`*—(Optional) Maximum time that the plug-in waits for the router to respond.

**Value**— Number of milliseconds in the range 0–2147483647. A zero means there is no timeout.
**Default**— 5000
**Editing Level**—Advanced

`acp-remote-corba-ior` *`acp-remote-corba-ior`*— Object reference for the ACP plug-in.

**Value**— ACP CORBA reference that is defined with the **edit shared acp configuration corba acp-ior** statement.
**Default**— No value
**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* custom-radius-accounting

### Syntax

```
shared sae configuration plug-ins name name custom-radius-accounting {
     enable-radius-account-onoff;
     java-class-radius-packet-handler java-class-radius-packet-handler;
     class-path-radius-packet-handler class-path-radius-packet-handler;
     append-acct-status-type-attribute;
     require-mandatory-attributes;
     load-balancing-mode (failover | roundRobin);
     failback-timer failback-timer;
     timeout timeout;
     retry-interval retry-interval;
     maximum-queue-length maximum-queue-length;
     bind-address bind-address;
     udp-port udp-port;
     default-peer default-peer;
}
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins name name custom-radius-accounting]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure a custom RADIUS accounting plug-in.

`enable-radius-account-onoff`—(Optional) Specifies whether or not RADIUS Accounting On/off messages should be sent to the downstream Radius servers

**Value**— true or false
**Default**— true
**Editing Level**—Normal

`java-class-radius-packet-handler` *`java-class-radius-packet-handler`*— Name of the Java class that implements the RadiusPacketHandler interface in the RADIUS client library.

**Value**— Java class name. For example, net.juniper.smgt.radius.RadiusPacketHandlerImpl
**Default**— No value
**Editing Level**—Basic

`class-path-radius-packet-handler` *`class-path-radius-packet-handler`*—(Optional)

List of URLs that identify a location from which Java classes are loaded when the plug-in is initialized.

**Value**— Comma-separated list of URLs
**Default**— No value
**Editing Level**—Basic

`append-acct-status-type-attribute`—(Optional) Enable or disable whether or not the plug-in includes the Acct-Status-Type attribute in a RADIUS accounting request packet.

**Default**— Enabled
**Editing Level**—Normal

`require-mandatory-attributes`—(Optional) Enable or disable whether or not a RADIUS authentication or accounting request must contain all mandatory RADIUS attributes before sending the request packet.

**Default**— Enabled
**Editing Level**—Normal

`load-balancing-mode (failover | roundRobin)`— Mode for load-balancing RADIUS servers. You can set up the plug-in to switch between RADIUS servers in case of failure or to load-balance every request.

**Value**— One of the following:

- Failover—The SAE sends requests to the RADIUS server that is configured as the default peer. If the default peer fails, the SAE uses the next server configured in the peer group. The SAE cycles through the configured RADIUS servers as needed.
- Round-robin—The SAE alternates requests between all RADIUS servers configured in the peer group.

**Default**— Failover
**Editing Level**—Normal

`failback-timer` *`failback-timer`*— Controls if and when the SAE attempts to fail back to the default peer.

**Value**— One of the following:

- Number of seconds after a failover that the SAE attempts to fail back; range is -1–2147483647
- 0—SAE always attempts to fail back

-1—SAE never attempts to fail back

**Default**— -1
**Editing Level**—Normal

`timeout` *`timeout`*— Maximum time the SAE waits for a response from a RADIUS server. If the RADIUS server does not respond to the request, the request fails and the SAE logs an error message. Note: configure this attribute to be five times (or more) greater than the retry-interval attribute to make sure the fail-over mechanism works without losing any packet.

**Value**— Number of milliseconds in the range -1–9223372036854775807. -1 means that there is no timeout.
**Default**— 15000
**Editing Level**—Normal

`retry-interval` *`retry-interval`*— Time the SAE waits for a response from a RADIUS server before it resends the RADIUS packet. The SAE keeps sending RADIUS packets until either the server acknowledges the packet or the maximum timeout is reached. Note: configure the timeout attribute to be five times (or more) greater than this attribute to make sure the fail-over mechanism works without losing any packet.

**Value**— Number of milliseconds in the range 0–9223372036854775807.
**Default**— 3000
**Editing Level**—Normal

`maximum-queue-length` *`maximum-queue-length`*— Maximum number of unacknowledged RADIUS messages that the plug-in receives from the RADIUS server before it discards new messages.

**Value**— Integer in the range 0–2147483647
**Default**— 10000
**Editing Level**—Normal

`bind-address` *`bind-address`*—(Optional) Source IP address that the plug-in uses to communicate with the RADIUS server. If you do not specify an address, the global default address is used. You configure the global default address with the **slot** *number* **sae radius local-address** command.

**Value**— IP address
**Default**— No value
**Editing Level**—Advanced

`udp-port` *`udp-port`*—(Optional) Source UDP port used for communication with the RADIUS server. If not specified, the global default is used.

**Value**— One of the following:

- Port number in the range 1–65535
- A range of ports in the format port-port; for example, 7000-7003
- A comma-separated list of port numbers and port ranges enclosed in double quotation marks. For example, "7000-7003, 7006, 7007-7009".

**Default**— No value
**Editing Level**—Advanced

`default-peer` *`default-peer`*— Name of the RADIUS server to which the SAE sends packets for this plug-in.

**Value**— Name of the server as defined with the **shared sae configuration plug-ins pool *name* custom-radius-accounting peer-group** command.
**Default**— No value
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* custom-radius-accounting peer-group

### Syntax

```
shared sae configuration plug-ins name name custom-radius-accounting peer-group name {
     server-address server-address;
     server-port server-port;
     secret secret;
}
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins name name custom-radius-accounting peer-group]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure a RADIUS peer, which is an instance of a RADIUS server. If you define multiple servers, the SAE uses them in cases of failover or as alternate servers for load-balancing purposes.

Note that if you configure more than one RADIUS peer in a plug-in instance that has the same properties, the SNMP counters for the plug-in will not update correctly. The reason is that the software does not know which RADIUS peer to send updates to.

### Options

`name` *`name`*— Name of the RADIUS peer.

**Value**—Text

`server-address` *`server-address`*— IP address of the RADIUS server to which the SAE sends accounting data or that the SAE uses for authentication and authorization.

**Value**— IP address
**Default**— No value
**Editing Level**—Normal

`server-port` *`server-port`*— Port used for RADIUS packets.

**Value**— Port number in the range 0–65535.

- RADIUS accounting servers typically use ports 1813 or 1646.
- RADIUS authentication servers typically use ports 1812 or 1645.

**Default**—1812
**Editing Level**—Normal

`secret` *`secret`*— Password that is shared with the RADIUS server. You must configure the same secret on the RADIUS server.

**Value**— Shared secret; the software encodes the secret using BASE-64.
**Default**— No value
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* custom-radius-authentication

### Syntax

```
shared sae configuration plug-ins name name custom-radius-authentication {
     java-class-radius-packet-handler java-class-radius-packet-handler;
     class-path-radius-packet-handler class-path-radius-packet-handler;
     require-mandatory-attributes;
     load-balancing-mode (failover | roundRobin);
     failback-timer failback-timer;
     timeout timeout;
     retry-interval retry-interval;
     maximum-queue-length maximum-queue-length;
     bind-address bind-address;
     udp-port udp-port;
     default-peer default-peer;
}
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins name name custom-radius-authentication]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure a custom RADIUS authentication plug-in.

`java-class-radius-packet-handler` *`java-class-radius-packet-handler`*— Name of the Java class that implements the RadiusPacketHandler interface in the RADIUS client library.

**Value**— Java class name. For example, net.juniper.smgt.radius.RadiusPacketHandlerImpl
**Default**— No value
**Editing Level**—Basic

`class-path-radius-packet-handler` *`class-path-radius-packet-handler`*—(Optional) List of URLs that identify a location from which Java classes are loaded when the plug-in is initialized.

**Value**— Comma-separated list of URLs
**Default**— No value
**Editing Level**—Basic

`require-mandatory-attributes`—(Optional) Specifies whether or not a RADIUS

authentication or accounting request must contain all mandatory RADIUS attributes before sending the request packet.

**Value**— true or false
**Default**— true
**Editing Level**—Normal

`load-balancing-mode (failover | roundRobin)`— Mode for load-balancing RADIUS servers. You can set up the plug-in to switch between RADIUS servers in case of failure or to load-balance every request.

**Value**— One of the following:

- Failover—The SAE sends requests to the RADIUS server that is configured as the default peer. If the default peer fails, the SAE uses the next server configured in the peer group. The SAE cycles through the configured RADIUS servers as needed.
- Round-robin—The SAE alternates requests between all RADIUS servers configured in the peer group.

**Default**— Failover
**Editing Level**—Normal

`failback-timer` *`failback-timer`*— Controls if and when the SAE attempts to fail back to the default peer.

**Value**— One of the following:

- Number of seconds after a failover that the SAE attempts to fail back; range is -1–2147483647
- 0—SAE always attempts to fail back
- -1—SAE never attempts to fail back

**Default**— -1
**Editing Level**—Normal

`timeout` *`timeout`*— Maximum time the SAE waits for a response from a RADIUS server. If the RADIUS server does not respond to the request, the request fails and the SAE logs an error message. Note: configure this attribute to be five times (or more) greater than the retry-interval attribute to make sure the fail-over mechanism works without losing any packet.

**Value**— Number of milliseconds in the range -1–9223372036854775807. -1 means that there is no timeout.
**Default**— 15000

**Editing Level**—Normal

`retry-interval` *`retry-interval`*— Time the SAE waits for a response from a RADIUS server before it resends the RADIUS packet. The SAE keeps sending RADIUS packets until either the server acknowledges the packet or the maximum timeout is reached. Note: configure the timeout attribute to be five times (or more) greater than this attribute to make sure the fail-over mechanism works without losing any packet.

**Value**— Number of milliseconds in the range 0–9223372036854775807
**Default**— 3000
**Editing Level**—Normal

`maximum-queue-length` *`maximum-queue-length`*— Maximum number of unacknowledged RADIUS messages that the plug-in receives from the RADIUS server before it discards new messages.

**Value**— Integer in the range 0–2147483647
**Default**— 10000
**Editing Level**—Normal

`bind-address` *`bind-address`*—(Optional) Source IP address that the plug-in uses to communicate with the RADIUS server. If you do not specify an address, the global default address is used. You configure the global default address with the **slot** *number* **sae radius local-address** command.

**Value**— IP address
**Default**— No value
**Editing Level**—Advanced

`udp-port` *`udp-port`*—(Optional) Source UDP port or a range of source UDP ports used for communication with the RADIUS server. If you do not specify a UDP port, the global UDP port is used. You configure the global UDP port with the **shared sae configuration global-radius-udp-port** command.

**Value**— One of the following:

- Port number in the range 1–65535
- A range of ports in the format port-port; for example, 7000-7003
- A comma-separated list of port numbers and port ranges enclosed in double quotation marks. For example, 7000-7003, 7006, 7007-7009

**Default**— No value
**Editing Level**—Advanced

`default-peer` *`default-peer`*— Name of the RADIUS server to which the SAE sends packets for this plug-in.

**Value**— Name of the server as defined with the **shared sae configuration plug-ins pool *name* custom-radius-authentication peer-group** command.
**Default**— No value
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* custom-radius-authentication peer-group

### Syntax

```
shared sae configuration plug-ins name name custom-radius-authentication peer-
group name {
     server-address server-address;
     server-port server-port;
     secret secret;
}
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins name name custom-radius-authentication peer-
group]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure a RADIUS peer, which is an instance of a RADIUS server. If you define multiple servers, the SAE uses them in cases of failover or as alternate servers for load-balancing purposes.

Note that if you configure more than one RADIUS peer in a plug-in instance that has the same properties, the SNMP counters for the plug-in will not update correctly. The reason is that the software does not know which RADIUS peer to send updates to.

### Options

`name` *`name`*— Name of the RADIUS peer.

**Value**—Text

`server-address` *`server-address`*— IP address of the RADIUS server to which the SAE sends accounting data or that the SAE uses for authentication and authorization.

**Value**— IP address
**Default**— No value
**Editing Level**—Normal

`server-port` *`server-port`*— Port used for RADIUS packets.

**Value**— Port number in the range 0–65535.

- RADIUS accounting servers typically use ports 1813 or 1646.
- RADIUS authentication servers typically use ports 1812 or 1645.

**Default**—1812
**Editing Level**—Normal

`secret` *`secret`*— Password that is shared with the RADIUS server. You must configure the same secret on the RADIUS server.

**Value**— Shared secret; the software encodes the secret using BASE-64.
**Default**— No value
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* ejb-adaptor

### Syntax

```
shared sae configuration plug-ins name name ejb-adaptor {
     application-server-url application-server-url;
     jndi-sae-event-listener jndi-sae-event-listener;
     event-admitter event-admitter;
     use-primary-vta-if-available;
     save-interim-events-in-failqueue;
     timeout timeout;
     socket-timeout socket-timeout;
     attributes [attributes...];
}
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins name name ejb-adaptor]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure an EJB adapter plug-in that the SRC-VTA uses to communicate with the SAE. The plug-in performs the following functions:

- Filters SAE plug-in events for the SRC-VTA.
- Adapts internal SAE events to EJB-compatible methods.
- Sends SAE tracking events to the SRC-VTA.

`application-server-url` *`application-server-url`*— Comma separated list of VTA IP addresses or hostnames. The prefix "jnp://" and the suffix ":1099" are allowed, but unneccessary. When use-primary-vta-if-available is enabled, then as per the Primary/backup algorithm, the first VTA in the comma separated list is the primary VTA. All the other VTAs are secondary VTAs.

**Value**— URLs with an optional prefix "jnp://" and an optional suffix ":1099".
**Default**— 127.0.0.1
**Editing Level**—Normal

`jndi-sae-event-listener` *`jndi-sae-event-listener`*— JNDI name of SAEEventListener EJB of the peer SRC-VTA.

**Value**— JNDI name. For example, Quota/SAEEventListenerBean.
**Default**— No value
**Editing Level**—Normal

`event-admitter` *`event-admitter`*—(Optional) LDAP filter that determines the subscriber and service events that the EJB adapter plug-in sends to the SRC-VTA.

**Value**— See *Installing and Initially Configuring the SRC-VTA* in the *SRC Application Library Guide*.
**Default**— No value
**Editing Level**—Normal

`use-primary-vta-if-available`—(Optional) When this attribute is set to true, EJB adapter plugin uses Primary/ backup algorithm ; when set to false, it uses Round-robin algorithm

**Value**— Enabled, to use Primary/backup algorithm. Disabled, to use Round-robin algorithm
**Default**— Disabled
**Editing Level**—Normal

`save-interim-events-in-failqueue`—(Optional) When this attribute is set the interim events are added to the failure queue. Make sure this flag is added only during Maintenance Window to avoid missing Interim events

**Value**— Enabled, fail queue added with interim events Disabled, fail queue not added with interim events
**Default**— Disabled
**Editing Level**—Normal

`timeout` *`timeout`*—(Optional) Connection timeout, in milliseconds, used when attempting to contact the JNDI name servers on application servers. Zero means the connection attempt will block until the TCP/IP layer times out.

**Value**—
**Default**— 3000
**Editing Level**—Normal

`socket-timeout` *`socket-timeout`*—(Optional) Connected socket read timeout, in milliseconds, used when reading from sockets connected to the JNDI name servers on application servers. Zero means reading will block.

**Value**—
**Default**— 0
**Editing Level**—Normal

`attributes [attributes...]`—(Optional) Attributes that are sent to the plug-in. We recommend that you configure only the required attributes. If you do not specify attributes, all attributes are sent. Specifying fewer attributes improves the performance of the SRC network.

**Value**—Text
**Default**— All attributes
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* external

### Syntax

```
shared sae configuration plug-ins name name external {
     corba-object-reference corba-object-reference;
     state-synchronization;
     store-interim-events-in-failqueue;
     attributes [attributes...];
}
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins name name external]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure SAE external plug-ins. You need to configure external plug-ins for SAE plug-in agents for the NIC, for Admission Control Plug-Ins, and for custom plug-ins developed in Common Object Request Broker Architecture (CORBA).

`corba-object-reference` *`corba-object-reference`*— Object reference of the external plug-in that is exported to the SAE. When the SAE sends the first event to a registered plug-in, it resolves the object reference.

**Value**— Object reference in one of the following formats:

- The absolute path to the interoperable object reference (IOR) file in the format: "file://<absolute path>"
- The corbaloc URL in the format corbaloc::<host>:<portNumber>/<path> where:
  - host is the name or IP address of the host that supports the plug-in
  - portNumber is the port number of the host
  - path is the absolute path to the plug-in
- Common Object Services (COS) in the format corbaname::<host>[:<port>][/serviceName]#<key> where the key is provided by the publisher of the IOR to the COS naming service.
- The actual IOR in the form IOR:<objectReference>

**Default**— No value
**Editing Level**—Normal

`state-synchronization`—(Optional) Plug-in implements state synchronization interface

**Editing Level**—Normal

`store-interim-events-in-failqueue`—(Optional) Store the interim events in Fail Queue. This flag would be necessary for dual-stack feature. If this flag is enabled, the fail-queue size would be increased and hence it is advisable to increase the fail queue size.

**Editing Level**—Normal

`attributes [`*`attributes`*`...]`—(Optional) Attributes that are sent to the plug-in. We recommend that you configure only the required attributes. If you do not specify attributes, all attributes are sent. Specifying fewer attributes improves the performance of the SRC network.

**Value**—Text
**Default**— All attributes
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* file-accounting

## Syntax

```
shared sae configuration plug-ins name name file-accounting {
     filename filename;
     template template;
     interval interval;
     fields [(status | nas-id | host | router-name | interface-name | interface-alias
| interface-descr | port-id | user-ip-address | login-name | accounting-id | auth-
user-id | if-radius-class | if-session-id | service-name | radius-class | event-time |
session-id | terminate-cause | session-time | in-octets | out-octets | in-packets |
out-packets | ipv6-in-octets | ipv6-out-octets | ipv6-in-packets | ipv6-out-packets |
nas-ip | user-mac-address | service-session-name | service-session-tag | user-type |
user-radius-class | user-session-id | primary-user-name | subscription-name | login-id
| if-index | event-time-millisecond | nas-port | operational | user-inet-address |
framed-ipv6-prefix | nas-inet-address | router-type | interface-speed | calling-
station-id | remote-tunnel-inet-address | local-tunnel-inet-address | vpn-id |
service-identifier | event-trigger | tdf-application-id | tdf-application-instance-id
| rating-group | total-octets | ipv6-total-octets)...];
}
```

## Hierarchy Level

```
[edit shared sae configuration plug-ins name name file-accounting]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure a file accounting plug-in, which writes information to a file in a comma-separated format.

`filename` *`filename`*— Name and location of the file to which the SAE writes accounting information. The SAE names accounting files by appending the timestamp for the start of the accounting period.

**Value**— Path and name of file
**Default**— /var/acct/log
**Editing Level**—Normal

`template` *`template`*— Name of the template that defines header names for the attributes written to the acounting file.

**Value**— Template name
**Default**— std
**Editing Level**—Normal

`interval interval`— Number of hours of information stored in each accounting file. When the interval expires, the SAE closes the file, renames it to the archive name, and creates a new file.

Accounting files are aligned with midnight of the day the SAE process starts. If the interval is 24 hours, the SAE starts a new file at midnight every day beginning on the day the SAE process starts.

- If the interval is a divisor of 24 hours (for example, 15 minutes, 30 minutes, 1 hour), there is a repeatable pattern of file starts. For example, if the interval is set to 6 hours, the SAE creates a new file at midnight, 6 am, 12 pm, and 6 pm every day.
- If the interval is not a divisor of 24 hours, then the file start times shift each day to different times of the day.

If the SAE is restarted, the schedule for creating accounting files is reset to start at midnight.

**Value**— Interval in the format hour:minutes
**Default**— 24
**Editing Level**—Normal

`fields [(status | nas-id | host | router-name | interface-name | interface-alias | interface-descr | port-id | user-ip-address | login-name | accounting-id | auth-user-id | if-radius-class | if-session-id | service-name | radius-class | event-time | session-id | terminate-cause | session-time | in-octets | out-octets | in-packets | out-packets | ipv6-in-octets | ipv6-out-octets | ipv6-in-packets | ipv6-out-packets | nas-ip | user-mac-address | service-session-name | service-session-tag | user-type | user-radius-class | user-session-id | primary-user-name | subscription-name | login-id | if-index | event-time-millisecond | nas-port | operational | user-inet-address | framed-ipv6-prefix | nas-inet-address | router-type | interface-speed | calling-station-id | remote-tunnel-inet-address | local-tunnel-inet-address | vpn-id | service-identifier | event-trigger | tdf-application-id | tdf-application-instance-id | rating-group | total-octets | ipv6-total-octets)...]`—(Optional) List of accounting attributes that are written to the accounting file.

**Value**

- `status`—Accounting status
- `nas-id`—NAS identifier
- `host`—Hostname of the SAE
- `router-name`—Router name
- `interface-name`—Interface name
- `interface-alias`—Interface alias
- `interface-descr`—Interface description
- `port-id`—NAS port ID
- `user-ip-address`—Subscriber IP address
- `login-name`—Login name
- `accounting-id`—Accounting ID
- `auth-user-id`—User authentication ID
- `if-radius-class`—Interface RADIUS class
- `if-session-id`—Interface session ID
- `service-name`—Service name
- `radius-class`—RADIUS class
- `event-time`—Event time (s)

- session-id—Session ID
- terminate-cause—Terminate cause
- session-time—Session time
- in-octets—Number of input octets
- out-octets—Number of output octets
- in-packets—Number of input packets
- out-packets—Number of output packets
- ipv6-in-octets—Number of ipv6 input octets
- ipv6-out-octets—Number of ipv6 output octets
- ipv6-in-packets—Number of ipv6 input packets
- ipv6-out-packets—Number of ipv6 output packets
- nas-ip—NAS IP address
- user-mac-address—Subscriber MAC address
- service-session-name—Service session name
- service-session-tag—Service session tag
- user-type—Subscriber session type
- user-radius-class—Subscriber session RADIUS class
- user-session-id—Subscriber session ID
- primary-user-name—Primary subscriber name
- subscription-name—Subscription name
- login-id—Login ID
- if-index—Interface index
- event-time-millisecond—Event time (ms)
- nas-port—NAS port
- operational—Operational flag
- user-inet-address—Subscriber INET address
- framed-ipv6-prefix—Subscriber's Framed Ipv6 Prefix
- nas-inet-address—NAS INET address
- router-type—Router type
- interface-speed—Interface speed
- calling-station-id—Calling Station ID
- remote-tunnel-inet-address—Remote Tunnel Address
- local-tunnel-inet-address—Local Tunnel Address
- vpn-id—VPN ID
- service-identifier—Service Identifier
- event-trigger—Event Trigger for Gx
- tdf-application-id—TDF Application Identifier
- tdf-application-instance-id—TDF Application Instance Identifier
- rating-group—Rating Group Identifier
- total-octets—Number of total octets
- ipv6-total-octets—Number of ipv6 total octets

**Default**— status,nas-id,host,router-name,interface-name,interface-alias,interface-descr,port-id,user-ip-address, login-name,accounting-id,auth-user-id,if-radius-class,if-session-id,service-name,radius-class,event-time,session-id, terminate-cause,session-time,in-octets,out-octets,in-packets,out-packets,nas-ip,user-mac-address,service-session-name, service-session-tag,user-type,user-radius-class,user-session-id,user-session-handle,calling-station-id,remote-tunnel-inet-address,local-tunnel-inet-address
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* flex-radius-accounting

### Syntax

```
shared sae configuration plug-ins name name flex-radius-accounting {
     enable-radius-account-onoff;
     load-balancing-mode (failover | roundRobin);
     failback-timer failback-timer;
     timeout timeout;
     retry-interval retry-interval;
     maximum-queue-length maximum-queue-length;
     bind-address bind-address;
     udp-port udp-port;
     error-handling (0 | 1);
     default-peer default-peer;
     template template;
}
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins name name flex-radius-accounting]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure a flexible RADIUS accounting plug-in.

`enable-radius-account-onoff`—(Optional) Specifies whether or not RADIUS Accounting On/off messages should be sent to the downstream Radius servers

**Value**— true or false
**Default**— true
**Editing Level**—Normal

`load-balancing-mode (failover | roundRobin)`— Mode for load-balancing RADIUS servers. You can set up the plug-in to switch between RADIUS servers in case of failure or to load-balance every request.

**Value**— One of the following:

- Failover—The SAE sends requests to the RADIUS server that is configured as the default peer. If the default peer fails, the SAE uses the next server configured in the peer group. The SAE cycles through the configured RADIUS servers as needed.
- Round-robin—The SAE alternates requests between all RADIUS servers configured in the peer group.

**Default**— Failover
**Editing Level**—Normal

`failback-timer` *`failback-timer`*— Controls if and when the SAE attempts to fail back to the default peer.

**Value**— One of the following:

- Number of seconds after a failover that the SAE attempts to fail back; range is -1–2147483647
- 0—SAE always attempts to fail back
- -1—SAE never attempts to fail back

**Default**— -1
**Editing Level**—Normal

`timeout` *`timeout`*— Maximum time the SAE waits for a response from a RADIUS server. If the RADIUS server does not respond to the request, the request fails and the SAE logs an error message. Note: configure this attribute to be five times (or more) greater than the retry-interval attribute to make sure the fail-over mechanism works without losing any packet.

**Value**— Number of milliseconds in the range -1–9223372036854775807. -1 means that there is no timeout.
**Default**— 15000
**Editing Level**—Normal

`retry-interval` *`retry-interval`*— Time the SAE waits for a response from a RADIUS server before it resends the RADIUS packet. The SAE keeps sending RADIUS packets until either the server acknowledges the packet or the maximum timeout is reached. Note: configure the timeout attribute to be five times (or more) greater than this attribute to make sure the fail-over mechanism works without losing any packet.

**Value**— Number of milliseconds in the range 0–9223372036854775807
**Default**— 3000
**Editing Level**—Normal

`maximum-queue-length` *`maximum-queue-length`*— Maximum number of unacknowledged RADIUS messages that the plug-in receives from the RADIUS server before it discards new messages.

**Value**— Integer in the range 0–2147483647
**Default**— 10000
**Editing Level**—Normal

`bind-address` *`bind-address`*—(Optional) Source IP address that the plug-in uses to communicate with the RADIUS server. If you do not specify an address, the global default address is used. You configure the global default address with the **slot** *number* **sae radius local-address** command.

**Value**— IP address
**Default**— No value
**Editing Level**—Advanced

`udp-port` *`udp-port`*—(Optional) Source UDP port or a range of source UDP ports used for communication with the RADIUS server. If you do not specify a UDP port, the global UDP port is used. You configure the global UDP port with the **shared sae configuration global-radius-udp-port** command.

**Value**— One of the following:

- Port number in the range 1–65535
- A range of ports in the format port-port; for example, 7000-7003
- A comma-separated list of port numbers and port ranges enclosed in double quotation marks. For example, "7000-7003, 7006, 7007-7009".

**Default**— No value
**Editing Level**—Advanced

`error-handling (0 | 1)`— Configures the way the SAE handles errors.

**Value**— One of the following:

- 0—Ignores incorrect definitions and logs them for debugging purposes
- 1—Logs errors and discards the affected RADIUS packet

**Default**— 0 (Ignore)
**Editing Level**—Normal

`default-peer` *`default-peer`*— Name of the RADIUS server to which the SAE sends packets for this plug-in.

**Value**— Name of the server as defined with the **shared sae configuration plug-ins pool** ***name*** **flex-radius-accounting peer-group** command.
**Default**— No value
**Editing Level**—Normal

`template` *`template`*— Name of RADIUS packet template.

**Value**— Name of template
**Default**— No value
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* flex-radius-accounting peer-group

### Syntax

```
shared sae configuration plug-ins name name flex-radius-accounting peer-group name {
     server-address server-address;
     server-port server-port;
     secret secret;
}
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins name name flex-radius-accounting peer-group]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure a RADIUS peer, which is an instance of a RADIUS server. If you define multiple servers, the SAE uses them in cases of failover or as alternate servers for load-balancing purposes.

Note that if you configure more than one RADIUS peer in a plug-in instance that has the same properties, the SNMP counters for the plug-in will not update correctly. The reason is that the software does not know which RADIUS peer to send updates to.

### Options

`name` *`name`*— Name of the RADIUS peer.

**Value**—Text

`server-address` *`server-address`*— IP address of the RADIUS server to which the SAE sends accounting data or that the SAE uses for authentication and authorization.

**Value**— IP address
**Default**— No value
**Editing Level**—Normal

`server-port` *`server-port`*— Port used for RADIUS packets.

**Value**— Port number in the range 0–65535.

- RADIUS accounting servers typically use ports 1813 or 1646.
- RADIUS authentication servers typically use ports 1812 or 1645.

**Default**—1812
**Editing Level**—Normal

`secret` *`secret`*— Password that is shared with the RADIUS server. You must configure the same secret on the RADIUS server.

**Value**— Shared secret; the software encodes the secret using BASE-64.
**Default**— No value
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* flex-radius-accounting radius-packet-definition

### Syntax

```
shared sae configuration plug-ins name name flex-radius-accounting radius-packet-
definition name ...
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins name name flex-radius-accounting radius-
packet-definition]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure a RADIUS packet definition for the plug-in.

### Options

`name` *`name`*— Name of the RADIUS attribute instance.

**Value**—Text

### Required Privilege Level

system

### Required Editing Level

Basic

# shared sae configuration plug-ins name *name* flex-radius-accounting radius-packet-definition *name* attributes-with-type

### Syntax

```
shared sae configuration plug-ins name name flex-radius-accounting radius-packet-
definition name attributes-with-type name ...
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins name name flex-radius-accounting radius-
packet-definition name attributes-with-type]
```

### Description

Configure RADIUS attributes within a plug-in.

### Options

`name` *`name`*— Name of the RADIUS attribute.

**Value**—Text

### Required Privilege Level

system

### Required Editing Level

Basic

# shared sae configuration plug-ins name *name* flex-radius-accounting radius-packet-definition *name* attributes-with-type *name*

### Syntax

```
shared sae configuration plug-ins name name flex-radius-accounting radius-packet-
definition name attributes-with-type name (address | hex | integer | string | text) {
     value;
}
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins name name flex-radius-accounting radius-
packet-definition name attributes-with-type name]
```

### Options

Type of the RADIUS attribute.

**Value**

- `address`—
- `hex`—
- `integer`—
- `string`—
- `text`—

*`value`*— Value of the RADIUS attribute.

**Value**— Value can be a standard value or an expression. For a list of standard values, see *Configuring Accounting and Authentication Plug-Ins (SRC CLI)* in the *SRC PE Subscribers and Subscriptions Guide.*
**Default**— No value
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Basic

# shared sae configuration plug-ins name *name* flex-radius-accounting radius-packet-definition *name* attributes

### Syntax

```
shared sae configuration plug-ins name name flex-radius-accounting radius-packet-
definition name attributes name {
     value;
}
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins name name flex-radius-accounting radius-
packet-definition name attributes]
```

### Description

Configure RADIUS attributes within a plug-in.

### Options

`name` *`name`*— Name of the RADIUS attribute.

**Value**—Text

*`value`*— Value of the RADIUS attribute.

**Value**— Value can be a standard value or an expression. For a list of standard values, see *Configuring Accounting and Authentication Plug-Ins (SRC CLI)* in the *SRC PE Subscribers and Subscriptions Guide.*
**Default**— No value
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Basic

# shared sae configuration plug-ins name *name* flex-radius-accounting radius-packet-definition *name* vendor-specific-26

## Syntax

```
shared sae configuration plug-ins name name flex-radius-accounting radius-packet-
definition name vendor-specific-26 name ...
```

## Hierarchy Level

```
[edit shared sae configuration plug-ins name name flex-radius-accounting radius-
packet-definition name vendor-specific-26]
```

## Description

Configure Juniper Networks vendor-specific attributes (VSAs).

## Options

`name` *`name`*—

**Value**—Text

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* flex-radius-accounting radius-packet-definition *name* vendor-specific-26 *name* attributes

### Syntax

```
shared sae configuration plug-ins name name flex-radius-accounting radius-packet-
definition name vendor-specific-26 name attributes name {
     value;
}
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins name name flex-radius-accounting radius-
packet-definition name vendor-specific-26 name attributes]
```

### Options

`name` *`name`*— RADIUS attribute definition.

**Value**—Text

*`value`*—

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Basic

# shared sae configuration plug-ins name *name* flex-radius-accounting radius-packet-definition *name* vendor-specific-26 *name* type

## Syntax

```
shared sae configuration plug-ins name name flex-radius-accounting radius-packet-
definition name vendor-specific-26 name type name ...
```

## Hierarchy Level

```
[edit shared sae configuration plug-ins name name flex-radius-accounting radius-
packet-definition name vendor-specific-26 name type]
```

## Options

`name` *`name`*—

**Value**—Text

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* flex-radius-accounting radius-packet-definition *name* vendor-specific-26 *name* type *name* attributes

### Syntax

```
shared sae configuration plug-ins name name flex-radius-accounting radius-packet-
definition name vendor-specific-26 name type name attributes name {
     value;
}
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins name name flex-radius-accounting radius-
packet-definition name vendor-specific-26 name type name attributes]
```

### Options

`name` *`name`*— RADIUS attribute definition.

**Value**—Text

*`value`*—

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Basic

# shared sae configuration plug-ins name *name* flex-radius-accounting radius-packet-definition *name* vendor-specific

## Syntax

```
shared sae configuration plug-ins name name flex-radius-accounting radius-packet-
definition name vendor-specific name ...
```

## Hierarchy Level

```
[edit shared sae configuration plug-ins name name flex-radius-accounting radius-
packet-definition name vendor-specific]
```

## Description

Configure Juniper Networks vendor-specific attributes (VSAs).

## Options

`name` *`name`*—

**Value**—Text

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* flex-radius-accounting radius-packet-definition *name* vendor-specific *name* attributes

### Syntax

```
shared sae configuration plug-ins name name flex-radius-accounting radius-packet-
definition name vendor-specific name attributes name {
     value;
}
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins name name flex-radius-accounting radius-
packet-definition name vendor-specific name attributes]
```

### Options

`name` *`name`*— RADIUS attribute definition.

**Value**—Text

*`value`*—

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Basic

# shared sae configuration plug-ins name *name* flex-radius-accounting radius-packet-definition *name* vendor-specific *name* type

### Syntax

```
shared sae configuration plug-ins name name flex-radius-accounting radius-packet-
definition name vendor-specific name type name ...
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins name name flex-radius-accounting radius-
packet-definition name vendor-specific name type]
```

### Options

`name` *`name`*— Data type of the attribute value.

**Value**—Text

### Required Privilege Level

system

### Required Editing Level

Basic

# shared sae configuration plug-ins name *name* flex-radius-accounting radius-packet-definition *name* vendor-specific *name* type *name* attributes

### Syntax

```
shared sae configuration plug-ins name name flex-radius-accounting radius-packet-
definition name vendor-specific name type name attributes name {
     value;
}
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins name name flex-radius-accounting radius-
packet-definition name vendor-specific name type name attributes]
```

### Options

`name` *`name`*— RADIUS attribute definition.

**Value**—Text

*`value`*—

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Basic

# shared sae configuration plug-ins name *name* flex-radius-authentication

### Syntax

```
shared sae configuration plug-ins name name flex-radius-authentication {
     load-balancing-mode (failover | roundRobin);
     failback-timer failback-timer;
     timeout timeout;
     retry-interval retry-interval;
     maximum-queue-length maximum-queue-length;
     bind-address bind-address;
     udp-port udp-port;
     error-handling (0 | 1);
     default-peer default-peer;
     template template;
}
```

### Hierarchy Level

`[edit shared sae configuration plug-ins name name flex-radius-authentication]`

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure a flexible RADIUS authentication plug-in.

`load-balancing-mode (failover | roundRobin)`— Mode for load-balancing RADIUS servers. You can set up the plug-in to switch between RADIUS servers in case of failure or to load-balance every request.

**Value**— One of the following:

- Failover—The SAE sends requests to the RADIUS server that is configured as the default peer. If the default peer fails, the SAE uses the next server configured in the peer group. The SAE cycles through the configured RADIUS servers as needed.
- Round-robin—The SAE alternates requests between all RADIUS servers configured in the peer group.

**Default**— Failover
**Editing Level**—Normal

`failback-timer failback-timer`— Controls if and when the SAE attempts to fail back to the default peer.

**Value**— One of the following:

- Number of seconds after a failover that the SAE attempts to fail back; range is -1–2147483647
- 0—SAE always attempts to fail back
- -1—SAE never attempts to fail back

**Default**— -1
**Editing Level**—Normal

`timeout` *`timeout`*— Maximum time the SAE waits for a response from a RADIUS server. If the RADIUS server does not respond to the request, the request fails and the SAE logs an error message. Note: configure this attribute to be five times (or more) greater than the retry-interval attribute to make sure the fail-over mechanism works without losing any packet.

**Value**— Number of milliseconds in the range -1–9223372036854775807. -1 means that there is no timeout.
**Default**— 15000
**Editing Level**—Normal

`retry-interval` *`retry-interval`*— Time the SAE waits for a response from a RADIUS server before it resends the RADIUS packet. The SAE keeps sending RADIUS packets until either the server acknowledges the packet or the maximum timeout is reached. Note: configure the timeout attribute to be five times (or more) greater than this attribute to make sure the fail-over mechanism works without losing any packet.

**Value**— Number of milliseconds in the range 0–9223372036854775807
**Default**— 3000
**Editing Level**—Normal

`maximum-queue-length` *`maximum-queue-length`*— Maximum number of unacknowledged RADIUS messages that the plug-in receives from the RADIUS server before it discards new messages.

**Value**— Integer in the range 0–2147483647
**Default**— 10000
**Editing Level**—Normal

`bind-address` *`bind-address`*—(Optional) Source IP address that the plug-in uses to communicate with the RADIUS server. If you do not specify an address, the global default address is used. You configure the global default address with the **slot** *number* **sae radius local-address** command.

**Value**— IP address

**Default**— No value
**Editing Level**—Advanced

`udp-port` *`udp-port`*—(Optional) Source UDP port or a range of source UDP ports used for communication with the RADIUS server. If you do not specify a UDP port, the global UDP port is used. You configure the global UDP port with the **shared sae configuration global-radius-udp-port** command.

**Value**— One of the following:

- Port number in the range 1–65535
- A range of ports in the format port-port; for example, 7000-7003
- A comma-separated list of port numbers and port ranges enclosed in double quotation marks. For example, "7000-7003, 7006, 7007-7009".

**Default**— No value
**Editing Level**—Advanced

`error-handling (0 | 1)`— Configure the way the SAE handles errors.

**Value**— One of the following:

- 0—Ignores incorrect definitions and logs them for debugging purposes
- 1—Logs errors and discards the affected RADIUS packet

**Default**— 0 (Ignore)
**Editing Level**—Normal

`default-peer` *`default-peer`*— Name of the RADIUS server to which the SAE sends packets for this plug-in.

**Value**— Name of the server as defined with the **shared sae configuration plug-ins pool *name* flex-radius-authentication peer-group** command.
**Default**— No value
**Editing Level**—Normal

`template` *`template`*— Name of RADIUS packet template.

**Value**— Name of template
**Default**— No value
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* flex-radius-authentication peer-group

### Syntax

```
shared sae configuration plug-ins name name flex-radius-authentication peer-group name
{
     server-address server-address;
     server-port server-port;
     secret secret;
}
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins name name flex-radius-authentication peer-
group]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure a RADIUS peer, which is an instance of a RADIUS server. If you define multiple servers, the SAE uses them in cases of failover or as alternate servers for load-balancing purposes.

Note that if you configure more than one RADIUS peer in a plug-in instance that has the same properties, the SNMP counters for the plug-in will not update correctly. The reason is that the software does not know which RADIUS peer to send updates to.

### Options

`name` *`name`*— Name of the RADIUS peer.

**Value**—Text

`server-address` *`server-address`*— IP address of the RADIUS server to which the SAE sends accounting data or that the SAE uses for authentication and authorization.

**Value**— IP address
**Default**— No value
**Editing Level**—Normal

`server-port` *`server-port`*— Port used for RADIUS packets.

**Value**— Port number in the range 0–65535.

- RADIUS accounting servers typically use ports 1813 or 1646.
- RADIUS authentication servers typically use ports 1812 or 1645.

**Default**—1812
**Editing Level**—Normal

`secret` *`secret`*— Password that is shared with the RADIUS server. You must configure the same secret on the RADIUS server.

**Value**— Shared secret; the software encodes the secret using BASE-64.
**Default**— No value
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* flex-radius-authentication radius-packet-definition

## Syntax

```
shared sae configuration plug-ins name name flex-radius-authentication radius-packet-
definition name ...
```

## Hierarchy Level

```
[edit shared sae configuration plug-ins name name flex-radius-authentication radius-
packet-definition]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure a RADIUS packet definition for the plug-in.

## Options

`name` *`name`*— Name of the RADIUS attribute instance.

**Value**—Text

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* flex-radius-authentication radius-packet-definition *name* attributes-with-type

### Syntax

```
shared sae configuration plug-ins name name flex-radius-authentication radius-packet-
definition name attributes-with-type name ...
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins name name flex-radius-authentication radius-
packet-definition name attributes-with-type]
```

### Description

Configure RADIUS attributes within a plug-in.

### Options

`name` *`name`*— Name of the RADIUS attribute.

**Value**—Text

### Required Privilege Level

system

### Required Editing Level

Basic

# shared sae configuration plug-ins name *name* flex-radius-authentication radius-packet-definition *name* attributes-with-type *name*

### Syntax

```
shared sae configuration plug-ins name name flex-radius-authentication radius-packet-
definition name attributes-with-type name (address | hex | integer | string | text) {
     value;
}
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins name name flex-radius-authentication radius-
packet-definition name attributes-with-type name]
```

### Options

Type of the RADIUS attribute.

**Value**

- `address`—
- `hex`—
- `integer`—
- `string`—
- `text`—

*`value`*— Value of the RADIUS attribute.

**Value**— Value can be a standard value or an expression. For a list of standard values, see *Configuring Accounting and Authentication Plug-Ins (SRC CLI)* in the *SRC PE Subscribers and Subscriptions Guide.*
**Default**— No value
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Basic

# shared sae configuration plug-ins name *name* flex-radius-authentication radius-packet-definition *name* attributes

### Syntax

```
shared sae configuration plug-ins name name flex-radius-authentication radius-packet-
definition name attributes name {
     value;
}
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins name name flex-radius-authentication radius-
packet-definition name attributes]
```

### Description

Configure RADIUS attributes within a plug-in.

### Options

`name` *`name`*— Name of the RADIUS attribute.

**Value**—Text

*`value`*— Value of the RADIUS attribute.

**Value**— Value can be a standard value or an expression. For a list of standard values, see *Configuring Accounting and Authentication Plug-Ins (SRC CLI)* in the *SRC PE Subscribers and Subscriptions Guide.*
**Default**— No value
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Basic

# shared sae configuration plug-ins name *name* flex-radius-authentication radius-packet-definition *name* vendor-specific-26

## Syntax

```
shared sae configuration plug-ins name name flex-radius-authentication radius-packet-
definition name vendor-specific-26 name ...
```

## Hierarchy Level

```
[edit shared sae configuration plug-ins name name flex-radius-authentication radius-
packet-definition name vendor-specific-26]
```

## Description

Configure Juniper Networks vendor-specific attributes (VSAs).

## Options

`name` *`name`*—

**Value**—Text

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* flex-radius-authentication radius-packet-definition *name* vendor-specific-26 *name* attributes

## Syntax

```
shared sae configuration plug-ins name name flex-radius-authentication radius-packet-
definition name vendor-specific-26 name attributes name {
     value;
}
```

## Hierarchy Level

```
[edit shared sae configuration plug-ins name name flex-radius-authentication radius-
packet-definition name vendor-specific-26 name attributes]
```

## Options

`name` *`name`*— RADIUS attribute definition.

**Value**—Text

*`value`*—

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* flex-radius-authentication radius-packet-definition *name* vendor-specific-26 *name* type

## Syntax

```
shared sae configuration plug-ins name name flex-radius-authentication radius-packet-
definition name vendor-specific-26 name type name ...
```

## Hierarchy Level

```
[edit shared sae configuration plug-ins name name flex-radius-authentication radius-
packet-definition name vendor-specific-26 name type]
```

## Options

`name` *`name`*—

**Value**—Text

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* flex-radius-authentication radius-packet-definition *name* vendor-specific-26 *name* type *name* attributes

## Syntax

```
shared sae configuration plug-ins name name flex-radius-authentication radius-packet-
definition name vendor-specific-26 name type name attributes name {
     value;
}
```

## Hierarchy Level

```
[edit shared sae configuration plug-ins name name flex-radius-authentication radius-
packet-definition name vendor-specific-26 name type name attributes]
```

## Options

`name` *`name`*— RADIUS attribute definition.

**Value**—Text

*`value`*—

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* flex-radius-authentication radius-packet-definition *name* vendor-specific

### Syntax

```
shared sae configuration plug-ins name name flex-radius-authentication radius-packet-
definition name vendor-specific name ...
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins name name flex-radius-authentication radius-
packet-definition name vendor-specific]
```

### Description

Configure Juniper Networks vendor-specific attributes (VSAs).

### Options

`name` *`name`*—

**Value**—Text

### Required Privilege Level

system

### Required Editing Level

Basic

# shared sae configuration plug-ins name *name* flex-radius-authentication radius-packet-definition *name* vendor-specific *name* attributes

## Syntax

```
shared sae configuration plug-ins name name flex-radius-authentication radius-packet-
definition name vendor-specific name attributes name {
     value;
}
```

## Hierarchy Level

```
[edit shared sae configuration plug-ins name name flex-radius-authentication radius-
packet-definition name vendor-specific name attributes]
```

## Options

`name` *`name`*— RADIUS attribute definition.

**Value**—Text

*`value`*—

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* flex-radius-authentication radius-packet-definition *name* vendor-specific *name* type

## Syntax

```
shared sae configuration plug-ins name name flex-radius-authentication radius-packet-
definition name vendor-specific name type name ...
```

## Hierarchy Level

```
[edit shared sae configuration plug-ins name name flex-radius-authentication radius-
packet-definition name vendor-specific name type]
```

## Options

`name` *`name`*— Data type of the attribute value.

**Value**—Text

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* flex-radius-authentication radius-packet-definition *name* vendor-specific *name* type *name* attributes

## Syntax

```
shared sae configuration plug-ins name name flex-radius-authentication radius-packet-
definition name vendor-specific name type name attributes name {
     value;
}
```

## Hierarchy Level

```
[edit shared sae configuration plug-ins name name flex-radius-authentication radius-
packet-definition name vendor-specific name type name attributes]
```

## Options

`name` *`name`*— RADIUS attribute definition.

**Value**—Text

*`value`*—

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* interface-subscriber-limit

## Syntax

```
shared sae configuration plug-ins name name interface-subscriber-limit {
     concurrent-subscribers concurrent-subscribers;
}
```

## Hierarchy Level

```
[edit shared sae configuration plug-ins name name interface-subscriber-limit]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure a plug-in that limits the number of authenticated subscribers who connect to an IP interface on the router.

`concurrent-subscribers` *`concurrent-subscribers`*— Number of authenticated subscribers who can connect to an IP interface on the router simultaneously.

**Value**— Integer in the range 0–2147483647
**Default**— 1
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* internal

### Syntax

```
shared sae configuration plug-ins name name internal {
     plug-in-class plug-in-class;
}
```

### Hierarchy Level

`[edit shared sae configuration plug-ins name name internal]`

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure an internal plug-in.

`plug-in-class plug-in-class`— Class name of the plug-in.

**Value**— Fully qualified name of the Java class
**Default**— No value
**Editing Level**—Normal

### Required Privilege Level

system

### Required Editing Level

Basic

# shared sae configuration plug-ins name *name* internal properties

## Syntax

```
shared sae configuration plug-ins name name internal properties name {
     value;
}
```

## Hierarchy Level

```
[edit shared sae configuration plug-ins name name internal properties]
```

## Description

Configure the property name and value pairs that make up the plug-in.

## Options

`name` *`name`*— Name of the property for which you want to define a value.

**Value**—Text

*`value`*— Value for the property.

**Value**— Value for the property.
**Default**— No value
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Normal

# shared sae configuration plug-ins name *name* jms-adaptor

### Syntax

```
shared sae configuration plug-ins name name jms-adaptor {
     shared-dsa-configuration shared-dsa-configuration;
     subject-id-attribute-name [subject-id-attribute-name...];
     fail-queue-resend-interval fail-queue-resend-interval;
     fail-queues-max-size fail-queues-max-size;
     jms-blacklist-time jms-blacklist-time;
     jms-time-to-live jms-time-to-live;
     jms-connection-factory jms-connection-factory;
     dsa-application-server-urls [dsa-application-server-urls...];
     timeout timeout;
     socket-timeout socket-timeout;
     factory-initial factory-initial;
     factory-packages factory-packages;
     principal principal;
     credentials credentials;
     protocol protocol;
     authentication authentication;
}
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins name name jms-adaptor]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure the SAE plug-in to send events to Dynamic Service Activator through the Java Message Service (JMS). Dynamic Service Activator then publishes the events to listening external SOAP applications.

`shared-dsa-configuration` *`shared-dsa-configuration`*— Grouped configuration used by all Dynamic Service Activator instances to which this plug-in forwards SAE events.

**Value**—
**Default**—
**Editing Level**—Basic

`subject-id-attribute-name [`*`subject-id-attribute-name...`*`]`—(Optional) SAE plug-in event attributes whose values are used to find SOAP event subscriptions. The values from these attributes are the event's subject ID, which specifies a user or interface. The value can be set by the SAE's subscriber classification script. If the values match any subject ID configured in a Dynamic Service Activator event subscription, then the plug-in forwards the event to Dynamic Service Activator, which in turn publishes it to the external SOAP application that owns the event subscription. Note that this attribute is multivalued. If

any of the event attributes contains a value that matches an event subscription's subject-id configuration attribute, then the event is forwarded as specified in that event subscription.

**Value**—
**Default**— PA_ACCOUNTING_ID
**Editing Level**—Basic

`fail-queue-resend-interval` *`fail-queue-resend-interval`*—(Optional) Time between attempts to resend the events in the fail queue for each configured external SOAP application. When an event cannot be sent to any Dynamic Service Activator instance, it is stored in a fail queue.

**Value**—Integer in the range 1–2147483647
**Default**— 10 seconds
**Editing Level**—Advanced

`fail-queues-max-size` *`fail-queues-max-size`*—(Optional) Maximum size of all the fail queues combined. When an event cannot be sent to any Dynamic Service Activator instance, it is stored in a fail queue. Zero means all undeliverable events are discarded immediately, instead of being placed in a fail queue.

**Value**—Integer in the range 0–9223372036854775807
**Default**— 200 MB
**Editing Level**—Advanced

`jms-blacklist-time` *`jms-blacklist-time`*—(Optional) Time between connection attempts after a failure to establish a connection to a JMS queue on Dynamic Service Activator.

**Value**—
**Default**— 60 seconds
**Editing Level**—Advanced

`jms-time-to-live` *`jms-time-to-live`*—(Optional) Time before undelivered JMS messages can be silently discarded. Zero means forever.

**Value**—Integer in the range 0–2147483647
**Default**— 60 seconds
**Editing Level**—Advanced

`jms-connection-factory` *`jms-connection-factory`*—(Optional) JNDI name used to find JMS on the application server.

**Value**—
**Default**— ConnectionFactory
**Editing Level**—Expert

`dsa-application-server-urls [`*`dsa-application-server-urls...`*`]`— Dynamic Service Activator application servers to which SAE plug-in events are published. Dynamic Service Activator forwards the events as SOAP calls to external SOAP applications. The URLs point at the JNDI name servers on the Dynamic Service Activator application servers.

**Value**— The URLs are of the form jnp://127.0.0.1:1099/. The protocol and port sections of the URL are optional. An IP address or DNS name alone may be sufficient, assuming default application server configuration.
**Default**— jnp://127.0.0.1:1099
**Editing Level**—Basic

`timeout` *`timeout`*—(Optional) Connection timeout, in milliseconds, used when attempting to contact the JNDI name servers on application servers. Zero means the connection attempt will block until the TCP/IP layer times out.

**Value**—
**Default**— 3000
**Editing Level**—Advanced

`socket-timeout` *`socket-timeout`*—(Optional) Connected socket read timeout, in milliseconds, used when reading from sockets connected to the JNDI name servers on application servers. Zero means reading will block.

**Value**—
**Default**— 0
**Editing Level**—Advanced

`factory-initial` *`factory-initial`*—(Optional) Fully qualified class name of the factory class that creates the JNDI initial context.

**Value**—
**Default**— org.jnp.interfaces.NamingContextFactory
**Editing Level**—Expert

`factory-packages` *`factory-packages`*—(Optional) List of Java package prefixes for the class name of the factory class that creates a URL context factory.

**Value**— Colon-separated list of Java package prefixes
**Default**— org.jboss.naming:org.jnp.interfaces

**Editing Level**—Expert

`principal` *`principal`*—(Optional) Security principal used for authentication. This option may be relevant if you use a non-default value for the factory-initial option.

**Value**—
**Default**— Undefined.
**Editing Level**—Expert

`credentials` *`credentials`*—(Optional) Security credentials. This option may be relevant if you use a non-default value for the factory-initial option.

**Value**—
**Default**— Undefined.
**Editing Level**—Expert

`protocol` *`protocol`*—(Optional) Security protocol. This option may be relevant if you use a non-default value for the factory-initial option.

**Value**—
**Default**— Undefined.
**Editing Level**—Expert

`authentication` *`authentication`*—(Optional) Security authentication. This option may be relevant if you use a non-default value for the factory-initial option.

**Value**—
**Default**— Undefined.
**Editing Level**—Expert

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* ldap-authentication

### Syntax

```
shared sae configuration plug-ins name name ldap-authentication {
     method (search | bind);
     server server;
     bind-dn bind-dn;
     bind-password bind-password;
     search-filter search-filter;
     (ldaps);
     search-base-dn search-base-dn;
     user-id-method (user-name | login-name);
     name-attribute name-attribute;
     password-attribute password-attribute;
     service-bundle-attribute service-bundle-attribute;
     session-volume-quota session-volume-quota;
     timeout timeout;
     signature-dn signature-dn;
     blacklist;
}
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins name name ldap-authentication]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure an LDAP authentication plug-in. This plug-in performs authentication against different directories using different authentication methods.

`method (search | bind)`— LDAP authentication method that the SAE uses. Both search and bind have different implications for system security and performance. When you design the system, consider:

- Search—Because the SAE retrieves passwords from the directory, the directory must allow read access to the password. Allowing read access can be a security risk because an attacker may be able to read passwords in subscriber profiles. However, to lower the risk of password exposure, you can store passwords in encrypted (hashed) form.
- Bind—The SAE sends the password to the directory for authentication. The advantage is that passwords never need to be read from the directory. However, passwords are sent in clear text, and an attacker could intercept them. Bind is a relatively expensive operation that can affect system performance.

**Value**— One of the following:

- Search—The SAE searches the directory for the username that the subscriber enters, retrieves the found object, and compares the password stored in the object with the provided password. You can store passwords in clear text or encrypted (hashed) format by using the crypt (UNIX

/etc/passwd), SHA, or MD5 algorithms. The format for a hashed password is: {crypt}*hashed password*, {sha}*base64 SHA password*, or {md5}*base64 MD5 password*.

- Bind—The SAE performs a directory search, retrieves the DN of the found object, and tries to bind this DN and the password that the subscriber provides.If you specify the bind method, the plug-in uses the provided username and password to authenticate the directory (bind). You can store passwords in clear text or encrypted (hashed) format by using the crypt (UNIX /etc/passwd), SHA, or MD5 algorithms. You must use an encryption method that the directory supports.

**Default**— Search
**Editing Level**—Normal

`server` *`server`*—(Optional) List of IP addresses of the LDAP authentication server(s).

**Value**— Comma-separated list of IP addresses
**Default**— 127.0.0.1
**Editing Level**—Normal

`bind-dn` *`bind-dn`*—(Optional) DN used to authenticate access to the directory.

**Value**— DN
**Default**— cn=ssp, ou=Components, o=Operators, <base>
**Editing Level**—Normal

`bind-password` *`bind-password`*—(Optional) Password that the SAE uses to authenticate its access to the directory to search for the subscriber profile. If you do not specify a bind DN or bind password, the SAE uses anonymous access.

**Value**— Characters that make up the password. The SRC software encodes the secret using base64.
**Default**— ssp
**Editing Level**—Normal

`search-filter` *`search-filter`*—(Optional) Additional LDAP search filter that the SAE uses to search the directory for the subscriber profile. The initial search uses a search filter in the form (&(nameAttribute=userName) filter). The search is successful when the username and the filter match.

**Value**— Search filter syntax defined in RFC 2254—The String Representation of LDAP Search Filters (December 1997)
**Default**— (objectClass=umcSubscriber)
**Editing Level**—Normal

`ldaps`—Enables LDAPS as the secure protocol used for LDAP connections with the directory. Enabling LDAPS causes communication with the directory to be encrypted with Secure Sockets Layer (SSL).

**Value**— ldaps—Enable LDAPS
**Default**— Disabled
**Editing Level**—Advanced

`search-base-dn` *`search-base-dn`*—(Optional) Base DN for searching entries in the directory. If you do not specify a base DN, the SAE uses the DN of the associated retailer object.

Also, if you do not specify the base DN, the SAE takes a username in the form subscriber@domain and maps domain to a retailer object by comparing domain with the domain names stored in the retailer object. There are two special cases:

- If domain is empty, first the virtual router name and then the name default are tried.
- If a retailer defines * (asterisk) as a domain name, it is used to map all domains that cannot be mapped directly.

**Value**— DN
**Default**— No value
**Editing Level**—Normal

`user-id-method (user-name | login-name)`—(Optional) User identification from auth event.

**Value**— One of the following:

- user-name First part of "user@domain"
- login-name Complete "user@domain"

**Default**— user-name
**Editing Level**—Normal

`name-attribute` *`name-attribute`*—(Optional) Name of the directory attribute that holds the username.

**Value**— Attribute name
**Default**— uniqueID
**Editing Level**—Normal

`password-attribute` *`password-attribute`*—(Optional) Name of the directory attribute that stores the password.

**Value**— Directory attribute name
**Default**— userPassword
**Editing Level**—Normal

`service-bundle-attribute` *`service-bundle-attribute`*—(Optional) Name of the directory attribute that contains the name of the service bundle that is used for subscriber authentication. This value is made available to the subscriber classification process and can be used to select the subscriber profile to load.

**Value**— Directory attribute name
**Default**— No value
**Editing Level**—Normal

`session-volume-quota` *`session-volume-quota`*—(Optional) Name of the LDAP attribute that contains the value of the session volume quota. The LDAP plug-in sets the session volume quota to this value.

**Value**— Name of LDAP attribute
**Default**— No value
**Editing Level**—Normal

`timeout` *`timeout`*—(Optional) Maximum time the SAE waits for a response from a directory server. If the directory server does not respond to the request, the request fails and the SAE logs an error message.

**Value**— Number of milliseconds in the range 0–2147483647
**Default**— 5000
**Editing Level**—Advanced

`signature-dn` *`signature-dn`*—DES Signature DN

**Value**—Text
**Default**—<base>
**Editing Level**—Expert

`blacklist`—(Optional) Directory blacklisting

**Default**—true
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* pcmm-rks

### Syntax

```
shared sae configuration plug-ins name name pcmm-rks {
     load-balancing-mode (failover | roundRobin);
     failback-timer failback-timer;
     timeout timeout;
     retry-interval retry-interval;
     maximum-queue-length maximum-queue-length;
     bind-address bind-address;
     udp-port udp-port;
     feid-mso-data feid-mso-data;
     feid-mso-domain-name feid-mso-domain-name;
     trusted-element;
     default-peer default-peer;
}
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins name name pcmm-rks]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure a PCMM record-keeping server plug-in.

`load-balancing-mode (failover | roundRobin)`— Mode for load-balancing RADIUS servers. You can set up the plug-in to switch between RADIUS servers in case of failure or to load-balance every request.

**Value**— One of the following:

- Failover—The SAE sends requests to the RADIUS server that is configured as the default peer. If the default peer fails, the SAE uses the next server configured in the peer group. The SAE cycles through the configured RADIUS servers as needed.
- Round-robin—The SAE alternates requests between all RADIUS servers configured in the peer group.

**Default**— Failover
**Editing Level**—Normal

`failback-timer` *`failback-timer`*— Controls if and when the SAE attempts to fail back to the default peer.

**Value**— One of the following:

- Number of seconds after a failover that the SAE attempts to fail back; range is -1–2147483647
- 0—SAE always attempts to fail back
- -1—SAE never attempts to fail back

**Default**— -1
**Editing Level**—Normal

`timeout` *`timeout`*— Maximum time the SAE waits for a response from a RADIUS server. If the RADIUS server does not respond to the request, the request fails and the SAE logs an error message. Note: configure this attribute to be five times (or more) greater than the retry-interval attribute to make sure the fail-over mechanism works without losing any packet.

**Value**— Number of milliseconds in the range -1–9223372036854775807. -1 means that there is no timeout.
**Default**— 15000
**Editing Level**—Normal

`retry-interval` *`retry-interval`*— Time the SAE waits for a response from a RADIUS server before it resends the RADIUS packet. The SAE keeps sending RADIUS packets until either the server acknowledges the packet or the maximum timeout is reached. Note: configure the timeout attribute to be five times (or more) greater than this attribute to make sure the fail-over mechanism works without losing any packet.

**Value**— Number of milliseconds in the range 0–9223372036854775807
**Default**— 3000
**Editing Level**—Normal

`maximum-queue-length` *`maximum-queue-length`*— Maximum number of unacknowledged RADIUS messages that the plug-in receives from the RADIUS server before it discards new messages.

**Value**— Integer in the range 0–2147483647
**Default**— 10000
**Editing Level**—Normal

`bind-address` *`bind-address`*—(Optional) Source IP address that the plug-in uses to communicate with the RADIUS server. If you do not specify an address, the global default address is used. You configure the global default address with the **slot** *number* **sae radius local-address** command.

**Value**— IP address
**Default**— No value
**Editing Level**—Advanced

`udp-port` *`udp-port`*—(Optional) Source UDP port or a range of source UDP ports used for communication with the RADIUS server. If you do not specify a UDP port, the global UDP port is used. You configure the global UDP port with the **shared sae configuration global-radius-udp-port** command.

**Value**— One of the following:

- Port number in the range 1–65535
- A range of ports in the format port-port; for example, 7000-7003
- A comma-separated list of port numbers and port ranges enclosed in double quotation marks. For example, "7000-7003, 7006, 7007-7009".

**Default**— No value
**Editing Level**—Advanced

`feid-mso-data` *`feid-mso-data`*—(Optional) MSO-defined data in the financial entity ID (FEID) attribute, which is included in event messages.

**Value**— First eight bytes of the FEID attribute
**Default**— The first eight bytes are filled with zeros.
**Editing Level**—Normal

`feid-mso-domain-name` *`feid-mso-domain-name`*— The MSO domain name that uniquely identifies the MSO for billing and settlement purposes.

**Value**— Domain name up to 239 bytes; begins at the ninth byte of the FEID attribute
**Default**— No value
**Editing Level**—Normal

`trusted-element`—(Optional) When the SAE is running as a policy server—which means that the SAE sends event messages directly to the RKS—enables the SAE as a trusted network element.

**Default**— Enabled
**Editing Level**—Normal

`default-peer` *`default-peer`*— Configure an RKS peer, which is an instance of an RKS.

You must configure at least one RKS peer.

**Value**— Name of the server as defined with the **shared sae configuration plug-ins pool PccmRKSPlugin peer-group** command.
**Default**— No value
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* pcmm-rks peer-group

## Syntax

```
shared sae configuration plug-ins name name pcmm-rks peer-group name {
     server-address server-address;
     server-port server-port;
}
```

## Hierarchy Level

```
[edit shared sae configuration plug-ins name name pcmm-rks peer-group]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure a RADIUS peer, which is an instance of a RADIUS server. If you define multiple servers, the SAE uses them in cases of failover or as alternate servers for load-balancing purposes.

Note that if you configure more than one RADIUS peer in a plug-in instance that has the same properties, the SNMP counters for the plug-in will not update correctly. The reason is that the software does not know which RADIUS peer to send updates to.

## Options

`name` *`name`*— Name of the RADIUS peer.

**Value**—Text

`server-address` *`server-address`*— IP address of the RKS server to which the SAE sends accounting data

**Value**— IP address
**Default**— No value
**Editing Level**—Normal

`server-port` *`server-port`*— Port used for sending accounting packets.

**Value**— Port number in the range 0–65535
**Default**— 1813
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* qos-profile-tracking

## Syntax

```
shared sae configuration plug-ins name name qos-profile-tracking {
     threads threads;
     default-qos-profile default-qos-profile;
     separator separator;
     qos-profile-prefix qos-profile-prefix;
     service-selection-attribute service-selection-attribute;
     search-filter search-filter;
     invisible-qos-service invisible-qos-service;
     qos-profile-parameter-name qos-profile-parameter-name;
}
```

## Hierarchy Level

```
[edit shared sae configuration plug-ins name name qos-profile-tracking]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure a QoS-tracking plug-in that you can use to ensure that, as a subscriber activates and deactivates services, the required QoS profile is attached to the subscriber interface.

`threads` *`threads`*— Number of working threads that all QTP instances share when they process QTP events.

**Value**— Integer in the range 1–100.
**Default**— 1
**Editing Level**—Advanced

`default-qos-profile` *`default-qos-profile`*—(Optional) Name of the QoS profile that is attached to the interface when QoS services have been deactivated.

**Value**— Name of QoS profile
**Default**— No value
**Editing Level**—Normal

`separator` *`separator`*— Character that is placed between QoS profile input values when the system concatenates the values during the process of creating QoS profile names.

**Value**— Any character that is valid in QoS profile names on the router.
**Default**— A single hyphen (-)

**Editing Level**—Advanced

`qos-profile-prefix` *`qos-profile-prefix`*— Prefix added to the QoS service name as part of the process to determine the name of the QoS profile that needs to be attached to an interface for a particular service.

**Value**— Prefix that, when combined with QoS profile input values, matches a QoS profile on the router.
**Default**— qos-profile
**Editing Level**—Normal

`service-selection-attribute` *`service-selection-attribute`*— Name of the attribute in the service definition that you want the QTP to use as QoS profile input values. The QTP uses these values to determine the name of the QoS profile that needs to be attached to an interface for a group of QoS services.

**Value**— Name of any attribute in the service object; for example, serviceCategory, sspDesignAndGraphics. For a list of attribute names for the sspService object class, see the documentation for the LDAP schema in the SRC software distribution in the folder *SDK/doc/ldap* or on the Juniper Networks Web site at

http://www.juniper.net/techpubs/software/management/sdx

**Default**— serviceName
**Editing Level**—Normal

`search-filter` *`search-filter`*— Search filter that the SAE uses to search service objects in the directory to find QoS services. You can set up the filter to search the values of any attribute in the service object, such as service name, category, or tracking plug-in. The search is successful when a value matches the filter.

**Value**— Search filter in a format similar to the LDAP search filter. See *Managing Tiered and Premium Services with QoS on JUNOSe Routers* in the *SRC Solutions Guide* for a list of the values that you can use for filters.
**Default**— (attribute.trackPlugin=) Note that you must add a search value after the equal sign.
**Editing Level**—Normal

`invisible-qos-service` *`invisible-qos-service`*— Name of the hidden QoS profile attachment service that the QTP uses to attach QoS profiles to and remove QoS profiles from a router interface.

**Value**— Name of the configured service

**Default**— svc-qos-attach
**Editing Level**—Normal

`qos-profile-parameter-name` *`qos-profile-parameter-name`*— Name of the variable parameter used in the QoS profile name field in the QoS profile attachment action of the policy group that is assigned to the hidden QoS service. When the QTP obtains the name of the required QoS profile, it substitutes that value for the variable parameter.

**Value**— Valid parameter name
**Default**— qpName
**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* radius-accounting

### Syntax

```
shared sae configuration plug-ins name name radius-accounting {
     enable-radius-account-onoff;
     load-balancing-mode (failover | roundRobin);
     failback-timer failback-timer;
     nas-ip (SspIp | ErxIp);
     timeout timeout;
     retry-interval retry-interval;
     maximum-queue-length maximum-queue-length;
     bind-address bind-address;
     udp-port udp-port;
     username (login-name | accounting-id | auth-user-name | manager-id);
     calling-station-id (mac | no);
     default-peer default-peer;
}
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins name name radius-accounting]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure a basic RADIUS accounting plug-in. This plug-in sends accounting information to an external RADIUS accounting server or a group of accounting servers.

`enable-radius-account-onoff`—(Optional) Specifies whether or not RADIUS Accounting On/off messages should be sent to the downstream Radius servers

**Value**— true or false
**Default**— true
**Editing Level**—Normal

`load-balancing-mode (failover | roundRobin)`— Mode for load-balancing RADIUS servers. You can set up the plug-in to switch between RADIUS servers in case of failure or to load-balance every request.

**Value**— One of the following:

- Failover—The SAE sends requests to the RADIUS server that is configured as the default peer. If the default peer fails, the SAE uses the next server configured in the peer group. The SAE cycles through the configured RADIUS servers as needed.
- Round-robin—The SAE alternates requests between all RADIUS servers

configured in the peer group.

**Default**— Failover
**Editing Level**—Normal

`failback-timer` *`failback-timer`*— Controls if and when the SAE attempts to fail back to the default peer.

**Value**— One of the following:

- Number of seconds after a failover that the SAE attempts to fail back; range is -1–2147483647
- 0—SAE always attempts to fail back
- -1—SAE never attempts to fail back

**Default**— -1
**Editing Level**—Normal

`nas-ip (SspIp | ErxIp)`—(Optional) Value of the NAS-Ip attribute.

**Value**— One of the following:

- SSP local IP—IP address of the SAE
- RADIUS client IP—IP address of the virtual router

**Default**— No value
**Editing Level**—Normal

`timeout` *`timeout`*— Maximum time the SAE waits for a response from a RADIUS server. If the RADIUS server does not respond to the request, the request fails and the SAE logs an error message. Note: configure this attribute to be five times (or more) greater than the retry-interval attribute to make sure the fail-over mechanism works without losing any packet.

**Value**— Number of milliseconds in the range -1–9223372036854775807. -1 means that there is no timeout.
**Default**— 15000
**Editing Level**—Normal

`retry-interval` *`retry-interval`*— Time the SAE waits for a response from a RADIUS server before it resends the RADIUS packet. The SAE keeps sending RADIUS packets until either the server acknowledges the packet or the maximum timeout is reached. Note:

configure the timeout attribute to be five times (or more) greater than this attribute to make sure the fail-over mechanism works without losing any packet.

**Value**— Number of milliseconds in the range 0–9223372036854775807
**Default**— 3000
**Editing Level**—Normal

`maximum-queue-length` *`maximum-queue-length`*— Maximum number of unacknowledged RADIUS messages that the plug-in receives from the RADIUS server before it discards new messages.

**Value**— Integer in the range 0–2147483647
**Default**— 10000
**Editing Level**—Normal

`bind-address` *`bind-address`*—(Optional) Source IP address that the plug-in uses to communicate with the RADIUS server. If you do not specify an address, the global default address is used. You configure the global default address with the **slot** *number* **sae radius local-address** command.

**Value**— IP address
**Default**— No value
**Editing Level**—Advanced

`udp-port` *`udp-port`*—(Optional) Source UDP port or a range of source UDP ports used for communication with the RADIUS server. If you do not specify a UDP port, the global UDP port is used. You configure the global UDP port with the **shared sae configuration global-radius-udp-port** command.

**Value**— One of the following:

- Port number in the range 1–65535
- A range of ports in the format port-port; for example, 7000-7003
- A comma-separated list of port numbers and port ranges enclosed in quotation marks. For example, "7000-7003, 7006, 7007-7009".

**Default**— No value
**Editing Level**—Advanced

`username (login-name | accounting-id | auth-user-name | manager-id)`— Value of the User-Name attribute (RADIUS attribute [1]).

**Value**— One of the following:

login-name—Name used for login
- accounting-id—Value stored in the subscriber profile
- auth-user-name—Name used to authenticate a service
- manager-id—Value of the manager ID in the service subscription; use this setting to identify subscribers to enterprise services. Manager ID is the value of modifiersName (DN of the administrator who last modified the entry in the directory) in the subscription. If modifiersName does not exist, manager ID is the value of creatorsName (DN of the administrator who created the entry in the directory).

**Default**— login-name
**Editing Level**—Normal

`calling-station-id (mac | no)`— Specifies whether the SAE sends the MAC address of the subscriber in the Calling-Station-Id attribute.

**Value**— One of the following:

- mac—Sends the MAC address in the Calling-Station-Id attribute
- no—Does not send the MAC address in the Calling-Station-Id attribute

**Default**— no
**Editing Level**—Normal

`default-peer` *`default-peer`*— Name of the RADIUS server to which the SAE sends packets for this plug-in.

**Value**— Name of the server as defined with the **shared sae configuration plug-ins pool RadiusAcctPlugin peer-group** command.
**Default**— No value
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* radius-accounting peer-group

### Syntax

```
shared sae configuration plug-ins name name radius-accounting peer-group name {
     server-address server-address;
     server-port server-port;
     secret secret;
}
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins name name radius-accounting peer-group]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure a RADIUS peer, which is an instance of a RADIUS server. If you define multiple servers, the SAE uses them in cases of failover or as alternate servers for load-balancing purposes.

Note that if you configure more than one RADIUS peer in a plug-in instance that has the same properties, the SNMP counters for the plug-in will not update correctly. The reason is that the software does not know which RADIUS peer to send updates to.

### Options

`name` *`name`*— Name of the RADIUS peer.

**Value**—Text

`server-address` *`server-address`*— IP address of the RADIUS server to which the SAE sends accounting data or that the SAE uses for authentication and authorization.

**Value**— IP address
**Default**— No value
**Editing Level**—Normal

`server-port` *`server-port`*— Port used for RADIUS packets.

**Value**— Port number in the range 0–65535.

- RADIUS accounting servers typically use ports 1813 or 1646.

RADIUS authentication servers typically use ports 1812 or 1645.

**Default**—1812
**Editing Level**—Normal

`secret` *`secret`*— Password that is shared with the RADIUS server. You must configure the same secret on the RADIUS server.

**Value**— Shared secret; the software encodes the secret using BASE-64.
**Default**— No value
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* radius-authentication

### Syntax

```
shared sae configuration plug-ins name name radius-authentication {
     load-balancing-mode (failover | roundRobin);
     failback-timer failback-timer;
     nas-ip (SspIp | ErxIp);
     timeout timeout;
     retry-interval retry-interval;
     maximum-queue-length maximum-queue-length;
     bind-address bind-address;
     udp-port udp-port;
     default-peer default-peer;
}
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins name name radius-authentication]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure a basic RADIUS accounting plug-in. This plug-in sends authentication information to an external RADIUS authentication server or a group of redundant servers.

`load-balancing-mode (failover | roundRobin)`— Mode for load-balancing RADIUS servers. You can set up the plug-in to switch between RADIUS servers in case of failure or to load-balance every request.

**Value**— One of the following:

- Failover—The SAE sends requests to the RADIUS server that is configured as the default peer. If the default peer fails, the SAE uses the next server configured in the peer group. The SAE cycles through the configured RADIUS servers as needed.
- Round-robin—The SAE alternates requests between all RADIUS servers configured in the peer group.

**Default**— Failover
**Editing Level**—Normal

`failback-timer` *`failback-timer`*— Controls if and when the SAE attempts to fail back to the default peer.

**Value**— One of the following:

- Number of seconds after a failover that the SAE attempts to fail back; range is -1–2147483647
- 0—SAE always attempts to fail back
- -1—SAE never attempts to fail back

**Default**— -1
**Editing Level**—Normal

`nas-ip (SspIp | ErxIp)`—(Optional) Value of the NAS-Ip attribute.

**Value**— One of the following:

- SSP local IP—IP address of the SAE
- RADIUS client IP—IP address of the virtual router

**Default**— No value
**Editing Level**—Normal

`timeout` *`timeout`*— Maximum time the SAE waits for a response from a RADIUS server. If the RADIUS server does not respond to the request, the request fails and the SAE logs an error message. Note: configure this attribute to be five times (or more) greater than the retry-interval attribute to make sure the fail-over mechanism works without losing any packet.

**Value**— Number of milliseconds in the range -1–9223372036854775807. -1 means that there is no timeout.
**Default**— 15000
**Editing Level**—Normal

`retry-interval` *`retry-interval`*— Time the SAE waits for a response from a RADIUS server before it resends the RADIUS packet. The SAE keeps sending RADIUS packets until either the server acknowledges the packet or the maximum timeout is reached. Note: configure the timeout attribute to be five times (or more) greater than this attribute to make sure the fail-over mechanism works without losing any packet.

**Value**— Number of milliseconds in the range 0–9223372036854775807
**Default**— 3000
**Editing Level**—Normal

`maximum-queue-length` *`maximum-queue-length`*— Maximum number of unacknowledged RADIUS messages that the plug-in receives from the RADIUS server before it discards

new messages.

**Value**— Integer in the range 0–2147483647
**Default**— 10000
**Editing Level**—Normal

`bind-address` *`bind-address`*—(Optional) Source IP address that the plug-in uses to communicate with the RADIUS server. If you do not specify an address, the global default address is used. You configure the global default address with the **slot** *number* **sae radius local-address** command.

**Value**— IP address
**Default**— No value
**Editing Level**—Advanced

`udp-port` *`udp-port`*—(Optional) Source UDP port or a range of source UDP ports used for communication with the RADIUS server. If you do not specify a UDP port, the global UDP port is used. You configure the global UDP port with the **shared sae configuration global-radius-udp-port** command.

**Value**— One of the following:

- Port number in the range 1–65535
- A range of ports in the format port-port; for example, 7000-7003
- A comma-separated list of port numbers and port ranges enclosed in double quotation marks. For example, "7000-7003, 7006, 7007-7009".

**Default**— No value
**Editing Level**—Advanced

`default-peer` *`default-peer`*— Name of the RADIUS server to which the SAE sends packets for this plug-in.

**Value**— Name of the server as defined with the **shared sae configuration plug-ins pool RadiusAuthPlugin peer-group** command.
**Default**— No value
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* radius-authentication peer-group

### Syntax

```
shared sae configuration plug-ins name name radius-authentication peer-group name {
     server-address server-address;
     server-port server-port;
     secret secret;
}
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins name name radius-authentication peer-group]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure a RADIUS peer, which is an instance of a RADIUS server. If you define multiple servers, the SAE uses them in cases of failover or as alternate servers for load-balancing purposes.

Note that if you configure more than one RADIUS peer in a plug-in instance that has the same properties, the SNMP counters for the plug-in will not update correctly. The reason is that the software does not know which RADIUS peer to send updates to.

### Options

`name` *`name`*— Name of the RADIUS peer.

**Value**—Text

`server-address` *`server-address`*— IP address of the RADIUS server to which the SAE sends accounting data or that the SAE uses for authentication and authorization.

**Value**— IP address
**Default**— No value
**Editing Level**—Normal

`server-port` *`server-port`*— Port used for RADIUS packets.

**Value**— Port number in the range 0–65535.

- RADIUS accounting servers typically use ports 1813 or 1646.

RADIUS authentication servers typically use ports 1812 or 1645.

**Default**—1812
**Editing Level**—Normal

`secret` *`secret`*— Password that is shared with the RADIUS server. You must configure the same secret on the RADIUS server.

**Value**— Shared secret; the software encodes the secret using BASE-64.
**Default**— No value
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins name *name* schedule-authorization

## Syntax

```
shared sae configuration plug-ins name name schedule-authorization {
}
```

## Hierarchy Level

```
[edit shared sae configuration plug-ins name name schedule-authorization]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Create an authorization plug-in that authorizes a scheduled service.

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration plug-ins state-synchronization

### Syntax

```
shared sae configuration plug-ins state-synchronization {
     fail-queue-size fail-queue-size;
     fail-queue-age fail-queue-age;
     fail-queue-size-during-sync fail-queue-size-during-sync;
     batch-time batch-time;
     keepalive-time keepalive-time;
}
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins state-synchronization]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure a state synchronization plug-in. Some plug-ins, such as the ACP plug-in and the SAE plug-in agent for the NIC, support state synchronization with the SAE. The state synchronization plug-in allows external plug-ins to maintain the state of active subscriber, service, and interface sessions without having to store intermediate versions of the state locally.

### Options

`fail-queue-size` *`fail-queue-size`*— Maximum number of plug-in events that are stored while the communication with a state synchronization plug-in is interrupted.

**Value**— Integer in the range -1–2147483647. -1 means unlimited.
**Default**— 5000
**Editing Level**—Basic

`fail-queue-age` *`fail-queue-age`*— Mximum time for which plug-in events are stored while the communication with a state synchronization plug-in is interrupted.

**Value**— Integer in the range -1–2147483647. -1 means unlimited.
**Default**— -1
**Editing Level**—Basic

`fail-queue-size-during-sync` *`fail-queue-size-during-sync`*— Maximum number of plug-in events that are stored while communication with a state synchronization plug-in during synchronization

**Value**— Integer in the range -1–2147483647. -1 means unlimited.
**Default**— 10000
**Editing Level**—Basic

`batch-time` *`batch-time`*— Time the SAE waits for other plug-ins to become ready before starting a synchronization sequence.

**Value**— Number of seconds in the range 0–2147483647
**Default**— 60
**Editing Level**—Basic

`keepalive-time` *`keepalive-time`*— Time the SAE waits after an event before sending a ping to the remote plug-in.

**Value**— Number of seconds in the range 0–2147483647
**Default**— 60
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Normal

# shared sae configuration plug-ins vta-failqueue-size-config

### Syntax

```
shared sae configuration plug-ins vta-failqueue-size-config {
     min-free-diskspace-percentage min-free-diskspace-percentage;
}
```

### Hierarchy Level

```
[edit shared sae configuration plug-ins vta-failqueue-size-config]
```

### Release Information

Statement introduced in SRC Release 4.8.0

### Description

Configure the minimum free disk space in percentage so that disk space is regualry polled to ensure the minimum free disk space is available.

Suppose available disk free space is less than the configured minimum disk space then stop adding events into FQ.

### Options

`min-free-diskspace-percentage` *`min-free-diskspace-percentage`*—(Optional) Suppose available disk free space is less than the configured minimum disk space then stop adding events into FQ.

**Value**—Integer in the range 10–100
**Default**— 20
**Editing Level**—Expert

### Required Privilege Level

system

### Required Editing Level

Expert

# shared sae configuration policy-management-configuration

### Syntax

```
shared sae configuration policy-management-configuration {
     enable-junose-classifier-expansion;
}
```

### Hierarchy Level

```
[edit shared sae configuration policy-management-configuration]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Specify whether or not the SAE expands the JUNOSe classify-traffic conditions into multiple classifiers before it installs the policy on the router.

### Options

`enable-junose-classifier-expansion`—(Optional) Enables or disables the expansion of JUNOSe classify-traffic conditions into multiple classifiers before it installs the policy on the router.

You would use this feature in policies that are used in IP multimedia subsystem (IMS) environments. You can also use it to simplify the configuration of JUNOSe policies.

Because classifier expansion uses processing resources when the policy is created, you should set this property to true only if you are going to use the feature.

**Default**— Disabled
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Normal

# shared sae configuration radius-packet-template

### Syntax

```
shared sae configuration radius-packet-template name ...
```

### Hierarchy Level

```
[edit shared sae configuration radius-packet-template]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure a RADIUS packet template that contains the definition of RADIUS packets. You can use the template to define the content of RADIUS packets that the SAE sends to RADIUS servers. You can then apply the template to flexible RADIUS plug-ins.

### Options

`name` *`name`*— Name of the RADIUS packet template.

**Value**—Text

### Required Privilege Level

system

### Required Editing Level

Basic

# shared sae configuration radius-packet-template *name* radius-attributes

### Syntax

```
shared sae configuration radius-packet-template name radius-attributes name ...
```

### Hierarchy Level

```
[edit shared sae configuration radius-packet-template name radius-attributes]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Create a RADIUS attribute instance.

### Options

`name` *`name`*— Name of the file-accounting template. RADIUS attribute instance. The name you assign to the RADIUS attribute instance must match a RADIUS attribute instance name listed in *Configuring Accounting and Authentication Plug-Ins (SRC CLI)* in the *SRC PE Subscribers and Subscriptions Guide*.

**Value**—Text

### Required Privilege Level

system

### Required Editing Level

Basic

# shared sae configuration radius-packet-template *name* radius-attributes *name* attributes-with-type

### Syntax

```
shared sae configuration radius-packet-template name radius-
attributes name attributes-with-type name ...
```

### Hierarchy Level

```
[edit shared sae configuration radius-packet-template name radius-
attributes name attributes-with-type]
```

### Description

Configure RADIUS attributes within a plug-in.

### Options

`name` *`name`*— Name of the RADIUS attribute.

**Value**—Text

### Required Privilege Level

system

### Required Editing Level

Basic

# shared sae configuration radius-packet-template *name* radius-attributes *name* attributes-with-type *name*

### Syntax

```
shared sae configuration radius-packet-template name radius-
attributes name attributes-with-type name (address | hex | integer | string | text) {
     value;
}
```

### Hierarchy Level

```
[edit shared sae configuration radius-packet-template name radius-
attributes name attributes-with-type name]
```

### Options

Type of the RADIUS attribute.

**Value**

- `address`—
- `hex`—
- `integer`—
- `string`—
- `text`—

*`value`*— Value of the RADIUS attribute.

**Value**— Value can be a standard value or an expression. For a list of standard values, see *Configuring Accounting and Authentication Plug-Ins (SRC CLI)* in the *SRC PE Subscribers and Subscriptions Guide.*
**Default**— No value
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Basic

# shared sae configuration radius-packet-template *name* radius-attributes *name* attributes

## Syntax

```
shared sae configuration radius-packet-template name radius-
attributes name attributes name {
     value;
}
```

## Hierarchy Level

```
[edit shared sae configuration radius-packet-template name radius-
attributes name attributes]
```

## Description

Configure RADIUS attributes within a plug-in.

## Options

`name` *`name`*— Name of the RADIUS attribute.

**Value**—Text

*`value`*— Value of the RADIUS attribute.

**Value**— Value can be a standard value or an expression. For a list of standard values, see *Configuring Accounting and Authentication Plug-Ins (SRC CLI)* in the *SRC PE Subscribers and Subscriptions Guide.*
**Default**— No value
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration radius-packet-template *name* radius-attributes *name* vendor-specific-26

## Syntax

```
shared sae configuration radius-packet-template name radius-attributes name vendor-
specific-26 name ...
```

## Hierarchy Level

```
[edit shared sae configuration radius-packet-template name radius-
attributes name vendor-specific-26]
```

## Description

Configure Juniper Networks vendor-specific attributes (VSAs).

## Options

`name` *name*—

**Value**—Text

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration radius-packet-template *name* radius-attributes *name* vendor-specific-26 *name* attributes

## Syntax

```
shared sae configuration radius-packet-template name radius-attributes name vendor-
specific-26 name attributes name {
     value;
}
```

## Hierarchy Level

```
[edit shared sae configuration radius-packet-template name radius-
attributes name vendor-specific-26 name attributes]
```

## Options

`name` *`name`*— RADIUS attribute definition.

**Value**—Text

*`value`*—

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration radius-packet-template *name* radius-attributes *name* vendor-specific-26 *name* type

## Syntax

```
shared sae configuration radius-packet-template name radius-attributes name vendor-
specific-26 name type name ...
```

## Hierarchy Level

```
[edit shared sae configuration radius-packet-template name radius-
attributes name vendor-specific-26 name type]
```

## Options

`name` *name*—

**Value**—Text

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration radius-packet-template *name* radius-attributes *name* vendor-specific-26 *name* type *name* attributes

## Syntax

```
shared sae configuration radius-packet-template name radius-attributes name vendor-
specific-26 name type name attributes name {
     value;
}
```

## Hierarchy Level

```
[edit shared sae configuration radius-packet-template name radius-
attributes name vendor-specific-26 name type name attributes]
```

## Options

`name` *`name`*— RADIUS attribute definition.

**Value**—Text

*`value`*—

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration radius-packet-template *name* radius-attributes *name* vendor-specific

## Syntax

```
shared sae configuration radius-packet-template name radius-attributes name vendor-
specific name ...
```

## Hierarchy Level

```
[edit shared sae configuration radius-packet-template name radius-
attributes name vendor-specific]
```

## Description

Configure Juniper Networks vendor-specific attributes (VSAs).

## Options

`name` *`name`*—

**Value**—Text

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration radius-packet-template *name* radius-attributes *name* vendor-specific *name* attributes

## Syntax

```
shared sae configuration radius-packet-template name radius-attributes name vendor-
specific name attributes name {
     value;
}
```

## Hierarchy Level

```
[edit shared sae configuration radius-packet-template name radius-
attributes name vendor-specific name attributes]
```

## Options

`name` *`name`*— RADIUS attribute definition.

**Value**—Text

*`value`*—

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration radius-packet-template *name* radius-attributes *name* vendor-specific *name* type

## Syntax

```
shared sae configuration radius-packet-template name radius-attributes name vendor-
specific name type name ...
```

## Hierarchy Level

```
[edit shared sae configuration radius-packet-template name radius-
attributes name vendor-specific name type]
```

## Options

`name` *`name`*— Data type of the attribute value.

**Value**—Text

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration radius-packet-template *name* radius-attributes *name* vendor-specific *name* type *name* attributes

## Syntax

```
shared sae configuration radius-packet-template name radius-attributes name vendor-
specific name type name attributes name {
     value;
}
```

## Hierarchy Level

```
[edit shared sae configuration radius-packet-template name radius-
attributes name vendor-specific name type name attributes]
```

## Options

`name` *`name`*— RADIUS attribute definition.

**Value**—Text

*`value`*—

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae configuration script-extension

## Syntax

```
shared sae configuration script-extension {
     flexible-radius-script flexible-radius-script;
     dynamic-radius-script dynamic-radius-script;
}
```

## Hierarchy Level

```
[edit shared sae configuration script-extension]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Options

`flexible-radius-script` *`flexible-radius-script`*— Python script name of flexible radius plug-in

**Value**—
**Default**— flexRadius
**Editing Level**—Basic

`dynamic-radius-script` *`dynamic-radius-script`*— Python script name of local dynamic radius server

**Value**—
**Default**— dynRadius
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Expert

# shared sae configuration service-activation

### Syntax

```
shared sae configuration service-activation {
     retry-time retry-time;
     retry-limit retry-limit;
     activate-on-modification;
     invoke-modify-flow;
}
```

### Hierarchy Level

```
[edit shared sae configuration service-activation]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure session reactivation behavior. If a service session fails unexpectedly, the SAE tries to start the session again in the background. You can change how many times the SAE tries to activate the session and the interval between these attempts. In most instances, the default values do not need to be changed.

### Options

`retry-time` *`retry-time`*— Time between attempts to activate a service session if activation fails or to deactivate a service session if deactivation fails. This process takes place in the background.

**Value**— Number of seconds in the range -1–9223372036854775807; -1 indicates no limit
**Default**— 60
**Editing Level**—Basic

`retry-limit` *`retry-limit`*— Number of times the SAE tries to activate a service session if activation fails or to deactivate a service session if deactivation fails. This process takes place in the background. Limit number of times to retry service failed background activation.

**Value**— Integer in the range -1-2147483647; -1 indicates no limit
**Default**— -1
**Editing Level**—Basic

`activate-on-modification`—(Optional) When a service subscription is modified, normally only services that are currently active are updated. If this flag is set, any activate-

on-login service that is currently not active is automatically activated. This flag can be used to force service activations that failed e.g. due to an invalid definition at activation time.

**Editing Level**—Basic

`invoke-modify-flow`—(Optional) When a service parameter substitution is modified, the services are deactivated and then activated. If this flag is set, instead of reactivation actual modify flow would be invoked.Currently this flow is opted only for parameter substitution changes.

**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Expert

# shared sae configuration service-schedule

## Syntax

```
shared sae configuration service-schedule {
     years-in-future years-in-future;
     years-in-past years-in-past;
}
```

## Hierarchy Level

```
[edit shared sae configuration service-schedule]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure parameters related to service schedules.

## Options

`years-in-future` *`years-in-future`*—(Optional) Amount of time in the future from the year that the SRC system is started, that the scheduler can see.

**Value**— Integer in the range 1–100
**Default**— No value
**Editing Level**—Basic

`years-in-past` *`years-in-past`*—(Optional) Amount of time in the past, from the year that the SRC system is started, that the scheduler can see.

**Value**— Integer in the range 1–100
**Default**— No value
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Expert

# shared sae configuration session-job-manager

## Syntax

```
shared sae configuration session-job-manager {
     number-of-threads number-of-threads;
}
```

## Hierarchy Level

```
[edit shared sae configuration session-job-manager]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure the number of threads used for session-related activity; for example, aggregate service keepalives, and remote session monitoring.

## Options

`number-of-threads` *`number-of-threads`*— Number of threads used for session-related activity.

**Value**— Integer in the range 1–1000
**Default**— 16
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Expert

# shared sae configuration subscriber-sessions

### Syntax

```
shared sae configuration subscriber-sessions {
     assigned-ip-idle-timeout assigned-ip-idle-timeout;
     allow-same-ip-login;
}
```

### Hierarchy Level

```
[edit shared sae configuration subscriber-sessions]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure an idle timeout for sessions of assigned IP subscribers, and specify whether or not the SAE allows multiple logins from the same IP address.

### Options

`assigned-ip-idle-timeout` *`assigned-ip-idle-timeout`*— Interval after which assigned IP subscriber sessions are deactivated if no service session is active.

**Value**— Number of seconds in the range 0–2147483647
**Default**— 900
**Editing Level**—Basic

`allow-same-ip-login`—(Optional) Enables or disables whether the SAE allows a login from the same IP address requiring that the previous session logs out first.

- If enabled, the SAE logs in the new subscriber session and automatically logs out the previous session.
- If disabled, the SAE denies login requests if a subscriber session for an IP address is active.

**Default**— Disabled
**Editing Level**—Basic

### Required Privilege Level

system

## Required Editing Level

Normal

# shared sae configuration time-based-policies

### Syntax

```
shared sae configuration time-based-policies {
     action-threshold action-threshold;
     preparation-time preparation-time;
     disable-preparation-time;
     max-worker-threads max-worker-threads;
}
```

### Hierarchy Level

```
[edit shared sae configuration time-based-policies]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure the action threshold and preparation time for all schedules. You cannot set these values for individual schedules.

### Options

`action-threshold` *`action-threshold`*— Maximum delay that the service allows for a time-related change to occur.

**Value**— Number of milliseconds in the range 0–9223372036854775807. The recommended range is 60000-300000 milliseconds
**Default**— 300000 (5 minutes)
**Editing Level**—Basic

`preparation-time` *`preparation-time`*— Preparation time allowed for a state transition. When you set the preparation time, take into consideration system load and performance. Factors such as the number of subscribers, the number of active services, the number of schedule services, the speed of the processor on the system, as well as other conditions might affect the amount of time to process all the scheduled actions at a specified scheduled time.

**Value**— Number of milliseconds in the range 0–9223372036854775807
**Default**— 300000 (5 minutes)
**Editing Level**—Basic

`disable-preparation-time`—(Optional) Set true to deny applying preparation time during scheduled de-activate event.Only applicable for events that contain ONLY deactive actions.

For events with both activate and deactivate actions this flag is ignored

**Default**— false
**Editing Level**—Basic

`max-worker-threads` *`max-worker-threads`*—(Optional) The maximum number of worker threads for service scheduling.

**Value**— Integer in the range 0–2147483647
**Default**—
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Normal

# shared sae configuration timeout-session-job-manager

### Syntax

```
shared sae configuration timeout-session-job-manager {
     number-of-threads number-of-threads;
}
```

### Hierarchy Level

```
[edit shared sae configuration timeout-session-job-manager]
```

### Release Information

Statement introduced in SRC Release 3.1.0

### Description

Configure the number of threads used for timeout-session-related activity; for example, subscriber and service session timeout, idle timeouts.

### Options

`number-of-threads` *`number-of-threads`*— Number of threads used for timeout-session-related activity.

**Value**— Integer in the range 1–1000
**Default**— 16
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Expert

# shared sae dhcp-classifier rule

## Syntax

```
shared sae dhcp-classifier rule name {
     target target;
}
```

## Hierarchy Level

```
[edit shared sae dhcp-classifier rule]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure a rule in a classifier script.

## Options

`name` *`name`*— Name of a classification script.

**Value**—Text

`target` *`target`*—(Optional) Result of the classification script that is returned to the SAE.

**Value**— The result depends on the type of classification script:

- Subscriber classification script–An LDAP query that uniquely identifies a subscriber entry in the directory.
- DHCP classification script–DHCP profile.

**Default**— Not applicable
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae dhcp-classifier rule *name* condition

### Syntax

```
shared sae dhcp-classifier rule name condition name ...
```

### Hierarchy Level

```
[edit shared sae dhcp-classifier rule name condition]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure match conditions used to find a target. You can configure multiple conditions for each classifier rule.

### Options

`name` *`name`*— Match conditions used to find a target. For information about configuring match conditions, see *Classifying Interfaces and Subscribers with the SRC CLI* in *SRC PE Subscribers and Subscriptions Guide*.

**Value**—Text

### Required Privilege Level

system

### Required Editing Level

Basic

# shared sae dhcp-classifier rule *name* script

## Syntax

```
shared sae dhcp-classifier rule name script {
     script-value;
     include include;
}
```

## Hierarchy Level

```
[edit shared sae dhcp-classifier rule name script]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure a subscriber classifier. For more information about subscriber classifiers, see the *SRC PE Subscribers and Subscriptions Guide*.

## Options

*`script-value`*—(Optional) Script target. A script that can contain definitions of custom functions that can be called during the matching process. The complete content of the script is interpreted when the classifier is initially loaded. Because you can insert code into a script target, you can use the classification script to perform various tasks.

**Value**— Script enclosed in quotation marks.
**Default**— No value
**Editing Level**—Basic

`include` *`include`*—(Optional) Name of an existing script to include in the script you are configuring.

**Value**— *script-name*
**Default**— No value
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae group

### Syntax

`shared sae group` *`name`* `...`

### Hierarchy Level

`[edit shared sae group]`

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure a group of SAE configuration properties.

### Options

`name` *`name`*— Name of a shared SAE configuration.

**Value**— Text

### Required Privilege Level

system

### Required Editing Level

Basic

# shared sae subscriber-classifier rule

## Syntax

```
shared sae subscriber-classifier rule name {
     target target;
}
```

## Hierarchy Level

```
[edit shared sae subscriber-classifier rule]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure a rule in a classifier script.

## Options

`name` *`name`*— Name of a classification script.

**Value**—Text

`target` *`target`*—(Optional) Result of the classification script that is returned to the SAE.

**Value**— The result depends on the type of classification script:

- Subscriber classification script–An LDAP query that uniquely identifies a subscriber entry in the directory.
- DHCP classification script–DHCP profile.

**Default**— Not applicable
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared sae subscriber-classifier rule *name* condition

### Syntax

```
shared sae subscriber-classifier rule name condition name ...
```

### Hierarchy Level

```
[edit shared sae subscriber-classifier rule name condition]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure match conditions used to find a target. You can configure multiple conditions for each classifier rule.

### Options

`name` *`name`*— Match conditions used to find a target. For information about configuring match conditions, see *Classifying Interfaces and Subscribers with the SRC CLI* in *SRC PE Subscribers and Subscriptions Guide*.

**Value**—Text

### Required Privilege Level

system

### Required Editing Level

Basic

# shared sae subscriber-classifier rule *name* script

## Syntax

```
shared sae subscriber-classifier rule name script {
     script-value;
     include include;
}
```

## Hierarchy Level

```
[edit shared sae subscriber-classifier rule name script]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure a subscriber classifier. For more information about subscriber classifiers, see the *SRC PE Subscribers and Subscriptions Guide*.

## Options

*`script-value`*—(Optional) Script target. A script that can contain definitions of custom functions that can be called during the matching process. The complete content of the script is interpreted when the classifier is initially loaded. Because you can insert code into a script target, you can use the classification script to perform various tasks.

**Value**— Script enclosed in quotation marks.
**Default**— No value
**Editing Level**—Basic

`include` *`include`*—(Optional) Name of an existing script to include in the script you are configuring.

**Value**— *script-name*
**Default**— No value
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# slot *number* sae

## Syntax

```
slot number sae {
     base-dn base-dn;
     real-portal-address real-portal-address;
     java-runtime-environment java-runtime-environment;
     java-min-heap-size java-min-heap-size;
     java-heap-size java-heap-size;
     java-min-new-size java-min-new-size;
     java-new-size java-new-size;
     java-garbage-collection-options java-garbage-collection-options;
     port-offset port-offset;
     snmp-agent;
     shared shared;
}
```

## Hierarchy Level

```
[edit slot number sae]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure local properties for the SAE, including the base DN, interface the SAE uses to communicate with the router, path to the JRE, Java heap size, Java garbagae collection options, and port offset. The statement also specifies the shared configuration object that holds the shared SAE configuration, and it enables or disables SNMP.

## Options

`base-dn` *`base-dn`*— Distinguished name (DN) of the root directory for the SAE. You must set this attribute if you use a directory-naming scheme different from the default.

**Value**— DN of the root directory for the SAE.
**Default**— *o=umc*
**Editing Level**—Advanced

`real-portal-address` *`real-portal-address`*— Interface on the SAE that the SAE uses for communication with the router. If you clear this field, the interface is assumed to be the interface that was used to connect the router driver to the SAE. If the SAE has multiple network interfaces, you must specify the interfaces that are used to communicate with the router.

**Value**— IP address of the interface
**Default**— One of the IP addresses configured on the host (except 127.0.0.1)
**Editing Level**—Basic

`java-runtime-environment` *`java-runtime-environment`*— Path to the Java runtime environment (JRE) The SRC software requires a JRE that conforms to the Java 2 specification. The SRC software has been tested with Sun's JRE. See the SRC Release Notes for information about which version of the Sun JRE is distributed with the SRC software. We expect other JREs to work, but have not verified whether they do.

**Value**— Absolute or relative directory path. This path is the default installation path for the JRE that is distributed with the SRC software and installed with the other SRC components.
**Default**— *../jre/bin/java*
**Editing Level**—Expert

`java-min-heap-size` *`java-min-heap-size`*— Minimum Java heap (memory) size available to the JRE.

**Value**— Number of bytes or add k for kilobytes, m for megabytes, or g for gigabytes. For example, 896m. The value must be less or equal java-heap-size.
**Default**— The default is set to 2g for C2000 and 4g for C4000.
**Editing Level**—Advanced

`java-heap-size` *`java-heap-size`*— Maximum Java heap (memory) size available to the JRE.

**Value**— Number of bytes or add k for kilobytes, m for megabytes, or g for gigabytes. For example, 896m. Change this value if you experience problems caused by lack of memory. Set the value lower than the available physical memory to avoid low performance caused by disk swapping. See the documentation for the JRE for valid values.
**Default**— The value is calculated dynamically to 70% of the available real memory.
**Editing Level**—Advanced

`java-min-new-size` *`java-min-new-size`*— Minimum Java new generation heap (memory) size available to the JRE when the SAE starts.

**Value**— Integer in the range 0–<Java new size>. Specify the value in bytes or add m for megabytes, k for kilobytes, or g for gigabytes. For example, 24m. See the documentation for the JRE for valid values.
**Default**— 256m
**Editing Level**—Advanced

`java-new-size` *`java-new-size`*— Maximum Java new generation heap (memory) size available to the JRE when the SAE starts.

**Value**— Integer in the range 0–<Java heap size>. Specify the value in bytes or add m for megabytes, k for kilobytes, or g for gigabytes. For example, 24m. See the documentation for the JRE for valid values.
**Default**— 1000m
**Editing Level**—Advanced

`java-garbage-collection-options` *`java-garbage-collection-options`*— Garbage collection functionality of the Java Virtual Machine.

**Value**— Options defined by the JVM
**Default**— -Xbatch -XX:+UseConcMarkSweepGC -XX:CMSInitiatingOccupancyFraction=80 -XX:+UseParNewGC -XX:SurvivorRatio=1 -XX:InitialTenuringThreshold=8 -XX:MaxTenuringThreshold=10 -XX:TargetSurvivorRatio=90 -XX:+UseCMSCompactAtFullCollection -XX:CMSFullGCsBeforeCompaction=0 -XX:+CMSClassUnloadingEnabled -XX:+CMSParallelRemarkEnabled
**Editing Level**—Advanced

`port-offset` *`port-offset`*— Port offset for SAE instances. The offset is added to the OA port, RADIUS socket, and administration HTTPS server ports.

**Value**— Integer in the range 0–65535. Set to 0 if you install multiple SAE instances on the same host.
**Default**— 0
**Editing Level**—Expert

`snmp-agent`—(Optional) Enables the SAE to communicate with the SNMP agent.

**Editing Level**—Basic

`shared` *`shared`*— Shared configuration object that holds most of the SAE specific configuration.

**Value**— Name of the object in the format "/SAE/<path>". The <path> is separted by / and can contain multiple levels. The effective configuration is combined by all configuration objects in the path, with more specific configuration in the lower levels of the path.
**Default**— /SAE/POP-ID;
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# slot *number* sae initial

### Syntax

```
slot number sae initial {
     static-dn static-dn;
     dynamic-dn dynamic-dn;
}
```

### Hierarchy Level

```
[edit slot number sae initial]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure initial properties for SRC components.

### Options

`static-dn` *`static-dn`*—(Optional) Location of administrator-defined configuration data in the directory.

**Value**—Text
**Default**—ou=staticConfiguration,ou=Configuration,o=Management,o=umc
**Editing Level**—Expert

`dynamic-dn` *`dynamic-dn`*—(Optional) Location of programmatically-defined configuration data in the directory.

**Value**—Text
**Default**—ou=dynamicConfiguration,ou=Configuration,o=Management,o=umc

**Editing Level**—Expert

### Required Privilege Level

system

### Required Editing Level

Basic

# slot *number* sae initial directory-connection

## Syntax

```
slot number sae initial directory-connection {
     url url;
     backup-urls [backup-urls...];
     principal principal;
     credentials credentials;
     protocol (ldaps);
     timeout timeout;
     check-interval check-interval;
     blacklist;
     snmp-agent;
}
```

## Hierarchy Level

```
[edit slot number sae initial directory-connection]
```

## Description

Configure properties for the directory connection.

## Options

`url` *`url`*—(Optional) URL that identifies the location of the primary directory server.

**Value**— URL
**Default**—ldap://127.0.0.1:389
**Editing Level**—Basic

`backup-urls [`*`backup-urls...`*`]`—(Optional) URLs that identify the locations of backup directory servers. Backup servers are used if the primary directory server is not accessible.

**Value**— List of URLs
**Editing Level**—Basic

`principal` *`principal`*— DN that the SRC component uses for authentication to access the directory.

**Value**— DN.

When you specify the DN, you can use <base> to indicate the base DN.

**Editing Level**—Basic

`credentials` *`credentials`*— Password with which the SRC component accesses the directory.

**Value**— Password
**Editing Level**—Basic

`protocol (ldaps)`—(Optional) Security protocol used to connect to the directory. If you do not configure a security protocol, plain socket is used.

**Value**

- `ldaps`— LDAPS which uses SSL.

**Editing Level**—Expert

`timeout` *`timeout`*—(Optional) Maximum amount of time during which the directory must respond to a connection request.

**Value**—Integer in the range 1–2147483647 s
**Default**—10
**Editing Level**—Expert

`check-interval` *`check-interval`*—(Optional) Time interval at which the directory monitoring system verifies its connection to the directory. If the directory connection fails after this interval, the directory monitoring system initiates a connection to another directory.

**Value**—Integer in the range 15–2147483647 s
**Default**—60
**Editing Level**—Expert

`blacklist`—(Optional) Specifies whether the directory monitoring system prevents connection to a directory if the directory fails to respond during 10 polling intervals.

**Default**—false
**Editing Level**—Basic

`snmp-agent`—(Optional) Specifies whether the SRC SNMP agent exports MIBs for this directory connection.

**Default**—false
**Editing Level**—Expert

## Required Privilege Level

system

## Required Editing Level

Basic

# slot *number* sae initial directory-eventing

## Syntax

```
slot number sae initial directory-eventing {
     eventing;
     signature-dn signature-dn;
     polling-interval polling-interval;
     event-base-dn event-base-dn;
     dispatcher-pool-size dispatcher-pool-size;
}
```

## Hierarchy Level

```
[edit slot number sae initial directory-eventing]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Change configuration for directory eventing properties. In most cases, you can use the default configuration for these properties.

## Options

`eventing`—(Optional) Enable an SRC component to poll the directory for changes.

**Default**—true
**Editing Level**—Normal

`signature-dn` *`signature-dn`*—(Optional) DN of the directory entry that specifies the usedDirectory attribute for the SRC CLI. The usedDirectory attribute identifies the vendor of the directory server.

**Value**— DN
**Default**—o=umc
**Editing Level**—Expert

`polling-interval` *`polling-interval`*—(Optional) Interval at which an SRC component polls the directory to check for directory changes.

**Value**—Integer in the range 15–2147483647 s
**Default**—30
**Editing Level**—Normal

`event-base-dn` *`event-base-dn`*—(Optional) DN of an entry superior to the data associated with an SRC component in the directory.

If you are storing non-SRC data in the directory, and that data changes frequently whereas the SRC data does not, you may need to adjust the default value to improve performance. For optimal performance, set the value to the DN of an entry superior to both the SRC data and the changing non-SRC data.

**Value**— DN
**Default**—o=UMC
**Editing Level**—Expert

`dispatcher-pool-size` *`dispatcher-pool-size`*—(Optional) Number of directory change notifications that can be sent simultaneously to the SRC component.

**Value**—Integer in the range 0–2147483647
**Default**—1
**Editing Level**—Expert

## Required Privilege Level

system

## Required Editing Level

Basic

# slot *number* sae java-orb object-adapter

## Syntax

```
slot number sae java-orb object-adapter {
     address address;
}
```

## Hierarchy Level

```
[edit slot number sae java-orb object-adapter]
```

## Release Information

Statement introduced in SRC-3.2.0 Release

## Description

Object adapter internet address configuration

## Options

`address` *`address`*—(Optional) Object Adapter Internet Address: IP address on multi-homed host.

**Value**— IP address
**Default**— No value
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# slot *number* sae radius

## Syntax

```
slot number sae radius {
     local-address local-address;
     local-nas-id local-nas-id;
}
```

## Hierarchy Level

```
[edit slot number sae radius]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure the local address that the SAE uses to communicate with RADIUS servers, the network access server (NAS) ID that identifies the SAE when it sends RADIUS messages, and the real portal address that the SAE uses to communicate with the router.

## Options

`local-address` *`local-address`*— Local IP address on the SAE host used for communication with RADIUS servers.

**Value**— IP address; should be a unique NAS IP address.

In an installation in which the SAE is equipped with multiple network interfaces, you must specify the interface that communicates with external RADIUS servers. Typically, you must configure the RADIUS server to accept requests from a client; use this IP address for the RADIUS client configuration. Even if the RADIUS server is running on the same server as the SAE, do not use 127.0.0.1 as the local address, because this address is typically the loopback address for a server.

**Editing Level**—Basic

`local-nas-id` *`local-nas-id`*— String that identifies the SAE when it sends RADIUS authentication and accounting messages.

**Value**— Text string that identifies the SAE. Typically, the string is the name of the SAE host.
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# clear sae directory-blacklist

## Syntax

```
clear sae directory-blacklist
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Delete directory blacklist or remove a server from the directory blacklist. A server is added to the blacklist if it repeatedly fails to respond while the server is running and accepting requests.

## Required Privilege Level

clear

# clear sae registered equipment

### Syntax

```
clear sae registered equipment <mac-address mac-address> <force> <persistent>
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Delete entries in the equipment registration cache.

### Options

`mac-address` *`mac-address`*—(Optional) MAC address of eqiupment registrations.

**Value**— MAC address in the format xx:xx:xx:xx:xx:x
**Default**— No value

`force`—(Optional) Flag indicating that no confirmation is requested before the software clears the equipment registration.

**Default**— Disabled

`persistent`—(Optional) Flag indicating that equipment registration is also removed from the directory. If you do not set this flag, the equipment registration is removed only from the memory. Disabled

**Default**—false

### Required Privilege Level

clear

# clear sae registered login

### Syntax

```
clear sae registered login <mac-address mac-address> <force> <persistent>
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Delete entries in the login registration cache.

### Options

`mac-address` *`mac-address`*—(Optional) MAC address of login registrations.

**Value**— MAC address in the format xx:xx:xx:xx:xx:xx
**Default**— No value

`force`—(Optional) Flag indicating that no confirmation is requested before the software clears the login registration.

**Default**— Disabled

`persistent`—(Optional) Flag indicating that login registration is also removed from the directory. If you do not set this flag, the login registration is removed only from the memory.

**Default**— Disabled

### Required Privilege Level

clear

# monitor sae statistics sessions

## Syntax

```
monitor sae statistics sessions
```

## Release Information

Command introduced in SRC Release 3.1.0

## Description

Display real-time SNMP statistics for subscriber and service sessions.

## Required Privilege Level

view

# request sae load configuration

## Syntax

```
request sae load configuration
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Reload SAE configuration data from the directory. The new configuration takes effect immediately.

## Required Privilege Level

maintenance

# request sae load domain-map

## Syntax

```
request sae load domain-map
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Reload the mapping of domain names to retailer entries. This mapping is made available to the SAE's subscriber classification script.

## Required Privilege Level

maintenance

# request sae load interface-classification

## Syntax

```
request sae load interface-classification
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Reload the interface classification scripts from the directory, and apply the result of the interface classification changes to the router as follows:

- For every unmanaged interface that becomes managed, new default policies are downloaded to the router.
- For every managed interface whose default policy group has changed, the old default policies are replaced by the new ones.
- For every managed interface that becomes unmanaged, an error message in the error log is displayed and no changes are applied until the interface goes down.

## Required Privilege Level

maintenance

# request sae load services

## Syntax

```
request sae load services
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Reload the following objects from the directory: services, scopes, virtual routers, policies, service mutex groups, and service schedules. Related service sessions are activated, deactivated, or reactivated, as needed.

## Required Privilege Level

maintenance

# request sae load subscriptions

## Syntax

```
request sae load subscriptions
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Reload all subscriptions from the directory. Related service sessions are activated, deactivated, or reactivated as needed.

## Required Privilege Level

maintenance

# request sae login ip authenticated-dhcp

## Syntax

```
request sae login ip authenticated-dhcp virtual-router virtual-router address address
login-name login-name mac-address mac-address interface-type (ipv4 | ipv6) <service-
bundle service-bundle> <radius-class radius-class> <interface-name interface-name>
<interface-alias interface-alias> <interface-description interface-description> <nas-
port-id nas-port-id>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Log in a simulated subscriber that is an authenticated DHCP subscriber. Logging in simulated subscribers allows you to test your SRC application without the need for a router or other device.

## Options

`virtual-router` *`virtual-router`*— Name of a simulated virtual router that you want to appear in the simulated subscriber session.

**Value**— Text
**Default**— No value

`address` *`address`*— IP address from which you log in simulated subscribers.

**Value**— IP address
**Default**— No value

`login-name` *`login-name`*— Fully qualified name used to log in simulated subscribers.

**Value**— Fully qualified name
**Default**— No value

`mac-address` *`mac-address`*— MAC address used to log in simulated subscribers.

**Value**— MAC address in the format xx:xx:xx:xx:xx:xx
**Default**— 00:00:00:00:00:01

`interface-type (ipv4 | ipv6)` — Selects between IPv4 or IPv6 subscribers

**Value**

- `ipv4`—IPv4
- `ipv6`—IPv6

`service-bundle` *`service-bundle`*—(Optional) Service bundle used when logging in simulated subscribers.

**Value**— Service bundle name
**Default**— No value

`radius-class` *`radius-class`*—(Optional) RADIUS class used when logging in simulated subscribers.

**Value**— RADIUS class
**Default**— No value

`interface-name` *`interface-name`*—(Optional) Virtual interface used when logging in simulated subscribers.

**Value**— Virtual router name
**Default**— No value

`interface-alias` *`interface-alias`*—(Optional) Interface description used when logging in simulated subscribers. If you are simulating JUNOSe routers, interface alias is the description that is configured on JUNOSe routers with the **interface description** command.

**Value**— Text
**Default**— No value

`interface-description` *`interface-description`*—(Optional) Alternate interface name used when logging in simulated subscribers. This is the interface name that is used by SNMP.

**Value**— If you are simulating a:

- JUNOSe router, the format of the description is ip<slot>/<port>.<subinterface>
- JUNOS routing platform, ifDesc is the same as interfaceName.

**Default**— No value

`nas-port-id` *`nas-port-id`*—(Optional) Port identifier of an interface used when logging in simulated subscribers.

**Value**— Includes interface name and additional layer 2 information. For example, fastEthernet 3/1.
**Default**— No value

## Required Privilege Level

maintenance

# request sae login ip authenticated-interface

## Syntax

```
request sae login ip authenticated-interface virtual-router virtual-router address
address login-name login-name interface-type (ipv4 | ipv6) <service-bundle service-
bundle> <radius-class radius-class> <interface-name interface-name> <interface-alias
interface-alias> <interface-description interface-description> <nas-port-id nas-port-
id>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Log in a simulated subscriber that is an authenticated interface subscriber. Logging in simulated subscribers allows you to test your SRC application without the need for a router or other device.

## Options

`virtual-router` *`virtual-router`*— Name of a simulated virtual router that you want to appear in the simulated subscriber session.

**Value**— Text
**Default**— No value

`address` *`address`*— IP address from which you log in simulated subscribers.

**Value**— IP address
**Default**— No value

`login-name` *`login-name`*— Fully qualified name used to log in simulated subscribers.

**Value**— Fully qualified name
**Default**— No value

`interface-type (ipv4 | ipv6)` — Selects between IPv4 or IPv6 subscribers

**Value**

- `ipv4`—IPv4
- `ipv6`—IPv6

`service-bundle` *`service-bundle`*—(Optional) Service bundle used when logging in simulated subscribers.

**Value**— Service bundle name
**Default**— No value

`radius-class` *`radius-class`*—(Optional) RADIUS class used when logging in simulated subscribers.

**Value**— RADIUS class
**Default**— No value

`interface-name` *`interface-name`*—(Optional) Virtual interface used when logging in simulated subscribers.

**Value**— Virtual router name
**Default**— No value

`interface-alias` *`interface-alias`*—(Optional) Interface description used when logging in simulated subscribers. If you are simulating JUNOSe routers, interface alias is the description that is configured on JUNOSe routers with the **interface description** command.

**Value**— Text
**Default**— No value

`interface-description` *`interface-description`*—(Optional) Alternate interface name used when logging in simulated subscribers. This is the interface name that is used by SNMP.

**Value**— If you are simulating a:

- JUNOSe router, the format of the description is ip<slot>/<port>.<subinterface>
- JUNOS routing platform, ifDesc is the same as interfaceName.

**Default**— No value

`nas-port-id` *`nas-port-id`*—(Optional) Port identifier of an interface used when logging in simulated subscribers.

**Value**— Includes interface name and additional layer 2 information. For

example, fastEthernet 3/1.
**Default**— No value

## Required Privilege Level

maintenance

# request sae login ip unauthenticated-dhcp

## Syntax

```
request sae login ip unauthenticated-dhcp virtual-router virtual-router address
address mac-address mac-address interface-type (ipv4 | ipv6) <login-name login-name>
<service-bundle service-bundle> <radius-class radius-class> <interface-name interface-
name> <interface-alias interface-alias> <interface-description interface-description>
<nas-port-id nas-port-id>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Log in a simulated subscriber that is an unauthenticated DHCP subscriber. Logging in simulated subscribers allows you to test your SRC application without the need for a router or other device.

## Options

`virtual-router` *`virtual-router`*— Name of a simulated virtual router that you want to appear in the simulated subscriber session.

**Value**— Text
**Default**— No value

`address` *`address`*— IP address from which you log in simulated subscribers.

**Value**— IP address
**Default**— No value

`mac-address` *`mac-address`*— MAC address used to log in simulated subscribers.

**Value**— MAC address in the format xx:xx:xx:xx:xx:xx
**Default**— 00:00:00:00:00:01

`interface-type (ipv4 | ipv6)` — Selects between IPv4 or IPv6 subscribers

**Value**

- `ipv4`—IPv4
- `ipv6`—IPv6

`login-name` *`login-name`*—(Optional) Fully qualified name used to log in simulated subscribers.

**Value**— Fully qualified name
**Default**— No value

`service-bundle` *`service-bundle`*—(Optional) Service bundle used when logging in simulated subscribers.

**Value**— Service bundle name
**Default**— No value

`radius-class` *`radius-class`*—(Optional) RADIUS class used when logging in simulated subscribers.

**Value**— RADIUS class
**Default**— No value

`interface-name` *`interface-name`*—(Optional) Virtual interface used when logging in simulated subscribers.

**Value**— Virtual router name
**Default**— No value

`interface-alias` *`interface-alias`*—(Optional) Interface description used when logging in simulated subscribers. If you are simulating JUNOSe routers, interface alias is the description that is configured on JUNOSe routers with the **interface description** command.

**Value**— Text
**Default**— No value

`interface-description` *`interface-description`*—(Optional) Alternate interface name used when logging in simulated subscribers. This is the interface name that is used by SNMP.

**Value**— If you are simulating a:

- JUNOSe router, the format of the description is ip<slot>/<port>.<subinterface>
- JUNOS routing platform, ifDesc is the same as interfaceName.

**Default**— No value

`nas-port-id` *`nas-port-id`*—(Optional) Port identifier of an interface used when logging in simulated subscribers.

**Value**— Includes interface name and additional layer 2 information. For example, fastEthernet 3/1.
**Default**— No value

## Required Privilege Level

maintenance

# request sae login ip unauthenticated-interface

## Syntax

```
request sae login ip unauthenticated-interface virtual-router virtual-router
interface-name interface-name interface-type (ipv4 | ipv6) <address address> <login-
name login-name> <service-bundle service-bundle> <radius-class radius-class>
<interface-alias interface-alias> <interface-description interface-description> <nas-
port-id nas-port-id>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Log in a simulated subscriber that is an unauthenticated interface subscriber. Logging in simulated subscribers allows you to test your SRC application without the need for a router or other device.

## Options

`virtual-router` *`virtual-router`*— Name of a simulated virtual router that you want to appear in the simulated subscriber session.

**Value**— Text
**Default**— No value

`interface-name` *`interface-name`*— Virtual interface used when logging in simulated subscribers.

**Value**— Virtual interface name
**Default**— No value

`interface-type (ipv4 | ipv6)` — Selects between IPv4 or IPv6 subscribers

**Value**

- `ipv4`—IPv4
- `ipv6`—IPv6

`address` *`address`*—(Optional) IP address from which you log in simulated subscribers.

**Value**— IP address
**Default**— No value

`login-name` *`login-name`*—(Optional) Fully qualified name used to log in simulated subscribers.

**Value**— Fully qualified name
**Default**— No value

`service-bundle` *`service-bundle`*—(Optional) Service bundle used when logging in simulated subscribers.

**Value**— Service bundle name
**Default**— No value

`radius-class` *`radius-class`*—(Optional) RADIUS class used when logging in simulated subscribers.

**Value**— RADIUS class
**Default**— No value

`interface-alias` *`interface-alias`*—(Optional) Interface description used when logging in simulated subscribers. If you are simulating JUNOSe routers, interface alias is the description that is configured on JUNOSe routers with the **interface description** command.

**Value**— Text
**Default**— No value

`interface-description` *`interface-description`*—(Optional) Alternate interface name used when logging in simulated subscribers. This is the interface name that is used by SNMP.

**Value**— If you are simulating a:

- JUNOSe router, the format of the description is ip<slot>/<port>.<subinterface>
- JUNOS routing platform, ifDesc is the same as interfaceName.

**Default**— No value

`nas-port-id` *`nas-port-id`*—(Optional) Port identifier of an interface used when logging in simulated subscribers.

**Value**— Includes interface name and additional layer 2 information. For example, fastEthernet 3/1.
**Default**— No value

## Required Privilege Level

maintenance

# request sae logout dn

### Syntax

```
request sae logout dn <filter filter> <force>
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Log out subscribers who are accessible by DN. All subscribers who have a subscriber profile in the directory are accessible by DN.

### Options

`filter` *`filter`*—(Optional) DN or DNs of subscribers that you want to log out.

**Value**— All or part of the subscriber DN
**Default**— No value

`force`—(Optional) Flag indicating that no confirmation is requested before the software logs out subscribers.

**Default**— Disabled

### Required Privilege Level

clear

# request sae logout ip

## Syntax

```
request sae logout ip <filter filter> <force>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Log out subscribers who are accessible by IP address. The following types of subscribers are accessible by IP address: DHCP subscribers, authenticated PPP subscribers, and static IP subscribers who have logged in through a portal.

## Options

`filter` *`filter`*—(Optional) IP address or addresses of subscribers that you want to log out.

**Value**— All or part of the subscriber IP address
**Default**— No value

`force`—(Optional) Flag indicating that no confirmation is requested before the software logs out subscribers.

**Default**— Disabled

## Required Privilege Level

clear

# request sae logout login-name

## Syntax

```
request sae logout login-name <filter filter> <force>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Log out subscribers who are accessible by login name. All authenticated subscribers are accessible by login name.

## Options

`filter` *`filter`*—(Optional) Login name or names of subscribers that you want to log out.

**Value**— All or part of the login name
**Default**— No value

`force`—(Optional) Flag indicating that no confirmation is requested before the software logs out subscribers.

**Default**— Disabled

## Required Privilege Level

clear

# request sae logout session-id

## Syntax

```
request sae logout session-id <filter filter> <force>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Log out subscribers who are accessible by session ID. All subscribers are accessible by session ID.

## Options

`filter` *`filter`*—(Optional) Session ID or IDs of subscribers that you want to log out.

**Value**— All or part of the subscriber session ID
**Default**— No value

`force`—(Optional) Flag indicating that no confirmation is requested before the software logs out subscribers.

**Default**— Disabled

## Required Privilege Level

clear

# request sae modify device failover

### Syntax

```
request sae modify device failover <ip-address ip-address> <tcp-port tcp-port> <use-failover-server> virtual-router virtual-router <force>
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Modify failover server parameters.

### Options

`ip-address` *`ip-address`*—(Optional) IP address of an alternate SAE server to which a router or other device can reconnect when the device driver closes its connection. If the driver is configured to use this failover IP address, it sends this IP address to the router or other device when it closes its connection. The device then attempts to open a new connection to the failover IP address. This address is not applicable to the PCMM driver.

**Value**— IP address
**Default**— 0.0.0.0

`tcp-port` *`tcp-port`*—(Optional) Port of an alternate SAE server to which a router or other device can reconnect when the device driver closes its connection. If the driver is configured to use this failover port, it sends this failover port to the router or other device when it closes its connection. The device then attempts to open a new connection to this failover port. This TCP port is not applicable to the PCMM driver.

**Value**— Port number
**Default**— 0

`use-failover-server`—(Optional) If you set this flag, then the device driver sends its own failover IP address and port to the router or other device when it closes its connection. The device then attempts to open a new connection to the failover IP address and port. This flag is not applicable to the PCMM router driver.

**Default**— Disabled

`virtual-router` *`virtual-router`*— Virtual router name.

**Value**— Name of the virtual router.

- For JUNOSe router drivers, use the format virtualRouterName@routerName.
- For JUNOS router drivers and PCMM drivers, use the format default@routerName.

**Default**— No value

`force`—(Optional) Flag indicating that no confirmation is requested before the software proceeds with the modification.

**Default**— Disabled

## Required Privilege Level

reset

# request sae shutdown device

### Syntax

```
request sae shutdown device <name name> <force>
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Shut down the specified device driver.

### Options

`name` *`name`*—(Optional) Device name or names that are managing the drivers that you want to shut down.

**Value**— All or part of the device name.

- For JUNOSe router drivers, use the format virtualRouterName@routerName.
- For JUNOS router drivers and PCMM drivers, use the format default@routerName.

**Default**— No value

`force`—(Optional) Flag indicating that no confirmation is requested before proceeding with the device driver shutdown.

**Default**— Disabled

### Required Privilege Level

maintenance

# request sae update ip-pools

## Syntax

```
request sae update ip-pools virtual-router virtual-router <management-address
management-address> <SNMP-community SNMP-community> <server server> <base-dn base-dn>
<principal principal> <credentials credentials>
```

## Release Information

Command introduced in SRC Release 3.2.0

## Description

## Options

`virtual-router` *`virtual-router`*— Name of the virtual router in the format virtualRouterName@deviceName.

**Value**— Text
**Default**— No value

`management-address` *`management-address`*—(Optional) The IP address of the virtual router.

**Value**— IP address
**Default**— **-**

`SNMP-community` *`SNMP-community`*—(Optional) SNMP community for a given virtual router.

**Value**— Text
**Default**— **-**

`server` *`server`*—(Optional) IP address or name of the host that supports the directory.

**Value**— IP address or name of the host
**Default**— 127.0.0.1

`base-dn` *`base-dn`*—(Optional) The base DN for the root of the tree to be used.

**Value**— DN
**Default**— o=Network,o=UMC

`principal` *`principal`*—(Optional) DN that defines the username with which an SRC component accesses the directory.

**Value**— DN
**Default**— No Value

`credentials` *`credentials`*—(Optional) Password used for authentication with the directory server.

**Value**— Text
**Default**— No value

## Required Privilege Level

maintenance

# request sae update qos-profiles

## Syntax

```
request sae update qos-profiles virtual-router virtual-router <management-address
management-address> <SNMP-community SNMP-community> <server server> <base-dn base-dn>
<principal principal> <credentials credentials>
```

## Release Information

Command introduced in SRC Release 3.2.0

## Description

## Options

`virtual-router` *`virtual-router`*— Name of the virtual router in the format virtualRouterName@deviceName.

**Value**— Text
**Default**— No value

`management-address` *`management-address`*—(Optional) The IP address of the virtual router.

**Value**— IP address
**Default**— **-**

`SNMP-community` *`SNMP-community`*—(Optional) SNMP community for a given virtual router.

**Value**— Text
**Default**— public

`server` *`server`*—(Optional) IP address or name of the host that supports the directory.

**Value**— IP address or name of the host
**Default**— 127.0.0.1

`base-dn` *`base-dn`*—(Optional) The base DN for the root of the tree to be used.

**Value**— DN
**Default**— o=Network,o=UMC

`principal` *`principal`*—(Optional) DN that defines the username with which an SRC component accesses the directory.

**Value**— DN
**Default**— No Value

`credentials` *`credentials`*—(Optional) Password used for authentication with the directory server.

**Value**— Text
**Default**— No value

## Required Privilege Level

maintenance

# show sae directory-blacklist

## Syntax

```
show sae directory-blacklist
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display the directory blacklist.

## Required Privilege Level

view

# show sae drivers

### Syntax

```
show sae drivers <device-name device-name> < (brief) > <maximum-results maximum-results>
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Display the state of SAE device drivers. Each device driver manages one logical router instance. For example, a JUNOS routing platform, a JUNOSe virtual router, a PCMM device, or another third-party device.

### Options

`device-name` *`device-name`*—(Optional) Name of a device.

**Value**— All or part of the device name.

- For JUNOSe router drivers, use the format virtualRouterName@routerName.
- For JUNOS router drivers and PCMM drivers, use the format default@routerName.

**Default**— No value

(Optional) Output style

**Value**

- `brief`— Display virtual router names and sessionstore details

**Default**— Detail

`maximum-results` *`maximum-results`*—(Optional) Number of results to be displayed.

**Value**—Integer in the range 1–200
**Default**— 25

## Required Privilege Level

view

# show sae interfaces

## Syntax

```
show sae interfaces <interface-name interface-name> <virtual-router virtual-router> <
(brief) > <maximum-results maximum-results>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display information about router interfaces that the SAE is managing.

## Options

`interface-name` *`interface-name`*—(Optional) Name of router interface.

**Value**— All or part of the interface name
**Default**— No value

`virtual-router` *`virtual-router`*—(Optional) Name of virtual router.

**Value**— All or part of the virtual router name
**Default**— No value

(Optional) Output style.

**Value**

- `brief`— Display only interface names.

**Default**— Detail

`maximum-results` *`maximum-results`*—(Optional) Number of results to be displayed.

**Value**—Integer in the range 1–200
**Default**— 25

## Required Privilege Level

view

# show sae licenses

## Syntax

```
show sae licenses
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display licenses and the status of licenses running on the SAE.

## Required Privilege Level

view

# show sae number-service-sessions

## Syntax

```
show sae number-service-sessions service-name service-name service-attribute-name
service-attribute-name scope scope virtual-router virtual-router
```

## Release Information

Command introduced in SRC Release 4.2.0

## Description

Display number of service sessions.

## Options

`service-name` *`service-name`*— Name of a service.

**Value**— Text
**Default**— No value

`service-attribute-name` *`service-attribute-name`*— Name of a service attribute.

**Value**— Text
**Default**— No value

`scope` *`scope`*— Name of a service scope.

**Value**— Text
**Default**— No value

`virtual-router` *`virtual-router`*— Name of a virtual router.

**Value**— Text
**Default**— No value

## Required Privilege Level

view

# show sae policies

## Syntax

```
show sae policies <group group> < (brief) > <maximum-results maximum-results>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display policy groups.

## Options

`group` *`group`*—(Optional) Name of a policy group.

**Value**— All or part of the policy group name
**Default**— No value

(Optional) Output style.

**Value**

- `brief`— Display only policy group names.

**Default**—detail

`maximum-results` *`maximum-results`*—(Optional) Number of results to be displayed.

**Value**—Integer in the range 1–200
**Default**— 25

## Required Privilege Level

view

# show sae registered equipment

## Syntax

```
show sae registered equipment <mac-address mac-address> < (brief) > <maximum-results
maximum-results>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display equipment registrations.

## Options

`mac-address` *`mac-address`*—(Optional) MAC address of equipment registrations.

**Value**— MAC address in the format xx:xx:xx:xx:xx:xx
**Default**— No value

(Optional) Output style.

**Value**

- `brief`— Display only the MAC address of registered equipment.

**Default**— Detail

`maximum-results` *`maximum-results`*—(Optional) Number of results to be displayed.

**Value**—Integer in the range 1–200
**Default**— 25

## Required Privilege Level

view

# show sae registered login

## Syntax

```
show sae registered login <mac-address mac-address> < (brief) > <maximum-results
maximum-results>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display login registrations.

## Options

`mac-address` *`mac-address`*—(Optional) MAC address of login registrations.

**Value**— MAC address in the format xx:xx:xx:xx:xx:xx
**Default**— No value

(Optional) Output style

**Value**

- `brief`— Display only the MAC address of login registrations.

**Default**— Detail

`maximum-results` *`maximum-results`*—(Optional) Number of results to be displayed.

**Value**—Integer in the range 1–200
**Default**— 25

## Required Privilege Level

view

# show sae services

### Syntax

```
show sae services <name name> <secret> < (brief) > <maximum-results maximum-results> <
(by-active-sessions) >
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Display the state of services running on the SAE.

### Options

`name` *`name`*—(Optional) Name of service.

**Value**— All or part of the service name
**Default**— No value

`secret`—(Optional) Display subscriber sessions and service sessions for hidden services.

**Default**— Disabled

(Optional) Output style

**Value**

- `brief`— Display only service names.

**Default**— Detail

`maximum-results` *`maximum-results`*—(Optional) Number of results to be displayed.

**Value**—Integer in the range 1–200
**Default**— 25

(Optional) How to sort output results

**Value**

- `by-active-sessions`— Sort by number of active sessions.

**Default**— By service name
**Introduced in**—4.1.0

## Required Privilege Level

view

# show sae sessionstore-stats

## Syntax

```
show sae sessionstore-stats
```

## Release Information

Command introduced in SRC Release 4.6.0

## Description

Display the sessionstore's stats class details

## Required Privilege Level

view

# show sae statistics device

### Syntax

```
show sae statistics device <name name> < (brief | terse) >
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Display SNMP information for routers and other devices that the SAE is managing. For example, Juniper Networks routers, PCMM devices, and other third-party devices.

### Options

`name` *`name`*—(Optional) Name of a device.

**Value**— All or part of the device name.

- For JUNOSe router drivers, use the format virtualRouterName@routerName.
- For JUNOS router drivers and PCMM drivers, use the format default@routerName.

**Default**— No value

(Optional) Output style

**Value**

- `brief`— Display only device names.
- `terse`— Display device name, device type, number of managed and unmanaged interfaces.

**Default**— Detail

### Required Privilege Level

view

# show sae statistics device common

## Syntax

```
show sae statistics device common < (junos | junose | packetcable-cops | proxy | aaa |
junos-ise | junos-dmi | junos-gx) >
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display SNMP statistics for all device drivers of a particular type.

## Options

(Optional) Display SNMP statistics for a specified device driver type.

### Value

- `junos`— JUNOS router drivers.
- `junose`— JUNOSe router drivers.
- `packetcable-cops`— PCMM device drivers.
- `proxy`— Third-party device drivers.
- `aaa`— AAA device drivers.
- `junos-ise`— ISE device drivers.
- `junos-dmi`— DMI device drivers.
- `junos-gx`— GX device drivers.

**Default**— No value

## Required Privilege Level

view

# show sae statistics directory

## Syntax

```
show sae statistics directory
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display SNMP statistics about the directory.

## Required Privilege Level

view

# show sae statistics directory connections

### Syntax

```
show sae statistics directory connections <id id> < (brief) >
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Display SNMP statistics for directory connections.

### Options

`id` *`id`*—(Optional) Directory connection ID.

**Value**— All or part of the connection ID
**Default**— No value

(Optional) Output style

**Value**

- `brief`— Display only directory connection IDs.

**Default**— Detail

### Required Privilege Level

view

# show sae statistics license client

## Syntax

```
show sae statistics license client
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display SNMP information about the state of client licenses.

## Required Privilege Level

view

# show sae statistics license device

### Syntax

```
show sae statistics license device <name name> < (brief) >
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Display SNMP information about the state of licenses on specified devices.

### Options

`name` *`name`*—(Optional) Name of a device.

**Value**— All or part of the device name.

- For JUNOSe router drivers, use the format virtualRouterName@routerName.
- For JUNOS router drivers and PCMM drivers, use the format default@routerName.

**Default**— No value

(Optional) Output style

**Value**

- `brief`— Display only device names.

**Default**— Detail

### Required Privilege Level

view

# show sae statistics license local

## Syntax

```
show sae statistics license local
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display SNMP information about the state of local licenses.

## Required Privilege Level

view

# show sae statistics policy-management

## Syntax

```
show sae statistics policy-management
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display SNMP information about the policy engine, policy decision point, and the shared object repository where the policy objects are stored.

## Required Privilege Level

view

# show sae statistics process

## Syntax

```
show sae statistics process
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display SNMP information about the SAE server process.

## Required Privilege Level

view

# show sae statistics radius

## Syntax

```
show sae statistics radius
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display SNMP RADIUS information. Display SNMP statistics for RADIUS clients.

## Required Privilege Level

view

# show sae statistics radius client

### Syntax

```
show sae statistics radius client (accounting | authentication) <ip-address ip-address> <udp-port udp-port> < (brief) >
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Display SNMP information about RADIUS clients.

### Options

Display SNMP information for either RADIUS accounting clients or RADIUS authentication clients.

**Value**

- `accounting`— Display SNMP information for RADIUS accounting clients.
- `authentication`— Display SNMP information for RADIUS authentication clients.

**Default**— No value

`ip-address` *`ip-address`*—(Optional) IP address or addresses of RADIUS clients.

**Value**— All or part of the client IP address
**Default**— No value

`udp-port` *`udp-port`*—(Optional) Port number for RADIUS clients.

**Value**— All or part of the client port number
**Default**— No value

(Optional) Output style.

**Value**

- `brief`— Display only a list of the clients that are accessible by IP

address and port number.

**Default**— Detail

## Required Privilege Level

view

# show sae statistics sessions

## Syntax

```
show sae statistics sessions
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display SNMP statistics for subscriber sessions and service sessions.

## Required Privilege Level

view

# show sae subscribers

### Syntax

```
show sae subscribers <maximum-results maximum-results> <secret> < (brief | terse) >
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Display information about subscriber sessions.

### Options

`maximum-results` *`maximum-results`*—(Optional) Number of results to be displayed.

**Value**—Integer in the range 1–200
**Default**— 25

`secret`—(Optional) Display subscriber sessions and service sessions for hidden services.

**Default**— Disabled

(Optional) Output style

**Value**

- `brief`— Display subscriber session information. Service sessions are not displayed.
- `terse`— Display subscriber session ID, login name, and IP address.

**Default**— Detail

### Required Privilege Level

view

# show sae subscribers accounting-user-id

## Syntax

```
show sae subscribers accounting-user-id <filter filter> <exact>
```

## Release Information

Command introduced in SRC Release 4.6.0

## Description

Display subscriber sessions accessible by accounting-user-id. All authenticated subscribers are accessible by accounting-user-id.

## Options

`filter` *`filter`*—(Optional) Accounting-user-id of subscriber sessions.

**Value**— All or part of the subscriber accounting-user-id
**Default**— No value

`exact`—(Optional) Display subscriber sessions and service sessions for the exact accountingUserId filter.(To be used with filter argument)

**Default**— Disabled

## Required Privilege Level

view

# show sae subscribers dn

## Syntax

```
show sae subscribers dn <filter filter> <exact>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display subscriber sessions accessible by DN. All subscribers who have a subscriber profile in the directory are accessible by DN.

## Options

`filter` *`filter`*—(Optional) DN of the subscribers.

**Value**— All or part of the subscriber DN
**Default**— No value

`exact`—(Optional) Display subscriber sessions and service sessions for the exact dn filter. (To be used with filter argument)

**Default**— Disabled

## Required Privilege Level

view

# show sae subscribers ip

## Syntax

```
show sae subscribers ip <address address> <vpnid vpnid> <exact>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display subscriber sessions that are accessible by IP address. The following subscribers are accessible by IP address: DHCP subscribers, authenticated PPP subscribers, and static IP subscribers who have logged in through a portal.

## Options

`address` *`address`*—(Optional) IP address of subscriber sessions.

**Value**— All or part of the subscriber IP address
**Default**— No value

`vpnid` *`vpnid`*—(Optional) IP address of subscriber sessions.

**Value**— All or part of the subscriber IP address with VPN ID
**Default**— No value

`exact`—(Optional) Display subscriber sessions and service sessions for the exact IP address filter.(To be used with address argument)

**Default**— Disabled

## Required Privilege Level

view

# show sae subscribers login-name

## Syntax

```
show sae subscribers login-name <filter filter> <exact>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display subscriber sessions accessible by login name. All authenticated subscribers are accessible by login name.

## Options

`filter` *`filter`*—(Optional) Login name of subscriber sessions.

**Value**— All or part of the subscriber login name
**Default**— No value

`exact`—(Optional) Display subscriber sessions and service sessions for the exact login-name filter.(To be used with filter argument)

**Default**— Disabled

## Required Privilege Level

view

# show sae subscribers service-name

## Syntax

```
show sae subscribers service-name <filter filter> <exact>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display all active subscriber sessions activated from a subscription to the specified service name.

## Options

`filter` *`filter`*—(Optional) Service name of subscriber sessions.

**Value**— All or part of the service name
**Default**— No value

`exact`—(Optional) Display subscriber sessions and service sessions for the exact service-name filter.(To be used with filter argument)

**Default**— Disabled

## Required Privilege Level

view

# show sae subscribers session-id

## Syntax

```
show sae subscribers session-id <filter filter> <exact>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display subscriber sessions by session ID.

## Options

`filter` *`filter`*—(Optional) ID of subscriber sessions.

**Value**— All or part of the subscriber session ID
**Default**— No value

`exact`—(Optional) Display subscriber sessions and service sessions for the exact session-id filter.(To be used with filter argument)

**Default**— Disabled

## Required Privilege Level

view

# show sae threads

## Syntax

```
show sae threads
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display information about threads and their priority on the SAE.

## Required Privilege Level

view

# Network Information Collector (NIC)

The following table summarizes the SRC command-line interface (SRC CLI) for the Network Information Collector (NIC). Configuration statements and operational commands are listed in alphabetical order.

| Network Information Collector (NIC) |
| --- |
| Configuration Statements |
| shared nic scenario |
| shared nic scenario name agents |
| shared nic scenario name agents name configuration consolidator |
| shared nic scenario name agents name configuration directory |
| shared nic scenario name agents name configuration properties |
| shared nic scenario name agents name configuration sae-client |
| shared nic scenario name agents name configuration sae-plug-in |
| shared nic scenario name agents name configuration xml |
| shared nic scenario name hosts |
| shared nic scenario name hosts logger |
| shared nic scenario name hosts logger name file |
| shared nic scenario name hosts logger name syslog |
| shared nic scenario name hosts name configuration |
| shared nic scenario name hosts name configuration logger |
| shared nic scenario name hosts name configuration logger name file |
| shared nic scenario name hosts name configuration logger name syslog |
| shared nic scenario name nic-locators |
| shared nic scenario name nic-locators name resolution |
| shared nic scenario name realms |
| shared nic scenario name realms name configuration custom-resolvers |
| shared nic scenario name realms name configuration transitions |
| shared nic scenario name realms name resolvers |
| shared nic scenario name realms name resolvers name configuration |
| slot number network-publisher directory-connection |
| slot number network-publisher logger |

| |
|---|
| slot number network-publisher logger name file |
| slot number network-publisher logger name syslog |
| slot number network-publisher routers |
| slot number network-publisher routers authentication |
| slot number network-publisher routers router |
| slot number network-publisher routers router router-name authentication |
| slot number network-publisher routers router router-name test-mode |
| slot number network-publisher routers test-mode |
| slot number network-publisher select |
| slot number nic |
| slot number nic initial |
| slot number nic initial directory-connection |
| slot number nic initial directory-eventing |
| slot number nic java-orb object-adapter |
| Operational Commands |
| request network-publisher execute |
| request nic clear scenario-data |
| request nic restart agent |
| request nic restart resolver |
| show nic data |
| show nic data agent |
| show nic data resolver |
| show nic statistics |
| show nic statistics agent |
| show nic statistics host |
| show nic statistics process |
| show nic statistics resolver |
| test nic resolve |

# shared nic scenario

### Syntax

`shared nic scenario` *`name`* `...`

### Hierarchy Level

`[edit shared nic scenario]`

### Description

Configure a NIC configuration scenario to use. A configuration scenario defines the type of resolution to be performed.

### Options

`name` *`name`*— Name of a NIC configuration scenario.

**Value**— Name of a configuration scenario that has been established for the NIC.

### Required Privilege Level

system

### Required Editing Level

Basic

# shared nic scenario *name* agents

## Syntax

`shared nic scenario` *`name`* `agents` *`name`* `...`

## Hierarchy Level

`[edit shared nic scenario` *`name`* `agents]`

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure a NIC agent in a NIC configuration scenario.

## Options

`name` *`name`*— Name of a NIC agent in a configuration scenario.

**Value**—Text

## Required Privilege Level

system

## Required Editing Level

Basic

# shared nic scenario *name* agents *name* configuration consolidator

### Syntax

```
shared nic scenario name agents name configuration consolidator {
     resolvers-list resolvers-list;
     roles-list roles-list;
     source-agent source-agent;
     agent-processor agent-processor;
     network-data-types network-data-types;
     publishingInterval publishingInterval;
     event-life-expectancy event-life-expectancy;
}
```

### Hierarchy Level

```
[edit shared nic scenario name agents name configuration consolidator]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure properties for consolidator agents. When you use a configuration scenario, you typically change the source-agent option.

Before you change the value of this statement or the value of any of the options for this statement, contact Juniper Networks Professional Services or Juniper Networks Customer Support.

`resolvers-list` *`resolvers-list`*—(Optional) Names of NIC resolvers to which this agent sends events. If you do not define a list of NIC resolvers, you must define a list of roles.

**Value**— List of paths to NIC resolvers; paths are relative to the static configuration object. Separate resolvers with commas.
**Default**— No value
**Editing Level**—Expert

`roles-list` *`roles-list`*—(Optional) Names of NIC roles to which this agent sends events. All resolvers that participate in a role receive events.

If you do not define the names of the NIC roles, you must define a list of resolvers.

**Value**— Names of NIC roles in the format *`realmName`* `:` *`roleName`* `.` Use commas to separate one role from another in the list.
**Default**— No value
**Editing Level**—Expert

`source-agent` *`source-agent`*— Path to the agent for which this consolidator agent publishes data.

**Value**— Text

Example—/agents/InterfaceIdInterface

**Default**— No value
**Editing Level**—Basic

`agent-processor` *`agent-processor`*— Name of the Java class that the NIC agent uses to generate the data value object.

**Value**— Path to Java class
**Default**— No value
**Editing Level**—Expert

`network-data-types` *`network-data-types`*— Data types that the agent publishes.

For more information, see the documentation for the NIC resolution process.

If the agent publishes mappings, specify two data types in the format *`key`* , *`value`* . Use commas to separate entries.

**Value**— Data type in the format *`key`* or *`key`* , *`value`* , where

- *`key`* —Name of data key
- *`value`* — Name of data value

Example—IpPool, InterfaceId

**Default**— No value
**Editing Level**—Expert

`publishingInterval` *`publishingInterval`*—(Optional) Interval at which the NIC agent sends updates to the NIC resolvers.

**Value**— Number of seconds in the range 0–2147483647
**Default**—60
**Editing Level**—Expert

`event-life-expectancy` *`event-life-expectancy`*—(Optional) Length of time that data is valid after the NIC proxy receives data associated with events published by this agent.

**Value**— Number of seconds in the range 0–4294967295

- 0—Data does not expire
- Other values—Actual life expectancy of data

**Default**—0
**Editing Level**—Expert

**Required Privilege Level**

system

**Required Editing Level**

Basic

# shared nic scenario *name* agents *name* configuration directory

### Syntax

```
shared nic scenario name agents name configuration directory {
     principal principal;
     credentials credentials;
     key-attribute-processor key-attribute-processor;
     value-attribute-processor value-attribute-processor;
     mapping-attribute-processor mapping-attribute-processor;
     publishing-interval publishing-interval;
     resolvers-list resolvers-list;
     roles-list roles-list;
     search-base search-base;
     search-filter search-filter;
     search-scope (object | one-level | sub-tree);
     server-url server-url;
     directory-backup-urls directory-backup-urls;
     key-attribute-name key-attribute-name;
     value-attribute-name value-attribute-name;
     network-data-types network-data-types;
     event-life-expectancy event-life-expectancy;
     enable-directory-eventing;
     directory-connection-id directory-connection-id;
     snmp-agent;
     share-directory-connection;
     polling-interval polling-interval;
     retry-interval retry-interval;
}
```

### Hierarchy Level

`[edit shared nic scenario name agents name configuration directory]`

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure properties for directory agents. When you use a configuration scenario provided in the SRC software, you typically change only the following options:

- `search-base`
- `search-filter`
- `search-scope`
- `server-url`
- `authentication-dn`
- `password`

`principal` *`principal`*— DN that the NIC agent uses for authentication to access the directory.

**Value**— *`DN, base`*

Example—*cn=nic,ou=Components,o=Operators*, *`base`*

**Default**— cn=nic, ou=Components, o=Operators, <base>
**Editing Level**—Basic

`credentials` *`credentials`*— Password with which the NIC agent accesses the directory.

**Value**— *`password`*
**Default**— nic
**Editing Level**—Basic

`key-attribute-processor` *`key-attribute-processor`*—(Optional) Java class that the NIC agent uses to generate the network data object named key.

The object includes a list of attributes from the directory. If no class is specified, there can be only one key attribute (in the key.attrNames property).

This value is ignored if a mapping processor is specified.

Before you change the value of this option, contact Juniper Networks Professional Services or Juniper Networks Customer Support.

**Value**— Path to Java class

Example—net.juniper.smgt.gateway.nic.agent.dir. DnAttributeProcessor

**Default**— No value
**Editing Level**—Expert

`value-attribute-processor` *`value-attribute-processor`*—(Optional) Name of the Java class that the NIC agent uses to generate the data value object. Specify only if the agent publishes mappings.

If no class is specified, there can be only one value attribute (in the value.attrNames property).

Before you change the value of this option, contact Juniper Networks Professional Services or Juniper Networks Customer Support.

**Value**— Path to Java class
**Default**— No value
**Editing Level**—Expert

`mapping-attribute-processor` *`mapping-attribute-processor`*—(Optional) Name of the Java class that the NIC agent uses to process the key object and the value object, and to produce the mapping object DataPair. If no class is specified, NIC uses the key and value attribute processors.

Before you change the value of this option, contact Juniper Networks Professional Services or Juniper Networks Customer Support.

**Value**— Path to Java class
**Default**— No value
**Editing Level**—Expert

`publishing-interval` *`publishing-interval`*—(Optional) Interval at which the NIC agent sends updates to the NIC resolvers.

Before you change the value of this option, contact Juniper Networks Professional Services or Juniper Networks Customer Support.

**Value**— Number of seconds in the range 0–2147483647
**Default**— 60
**Editing Level**—Expert

`resolvers-list` *`resolvers-list`*—(Optional) Names of NIC resolvers to which this agent sends events. If you do not define a list of the NIC resolvers, you must define a list of roles.

Before you change the value of this option, contact Juniper Networks Professional Services or Juniper Networks Customer Support.

**Value**— List of paths to NIC resolvers; paths are relative to the static configuration object. Separate resolvers with commas.

Example—/realms/ip/B1, /realms/sharedIp/B1,/realms/login/D1

**Default**— No value
**Editing Level**—Expert

`roles-list` *`roles-list`*—(Optional) Names of NIC roles to which this agent sends events. All resolvers that participate in a role receive events. If you do not define the names of the NIC roles, you must define a list of resolvers.

Before you change the value of this option, contact Juniper Networks Professional Services or Juniper Networks Customer Support.

**Value**— Names of NIC roles in the format *`realmName`*`:`*`roleName`*`.` Use commas to separate one role from another in the list.
**Default**— No value
**Editing Level**—Expert

`search-base` *`search-base`*— DN of the location in the directory from which the agent should read information.

**Value**— *`DN, base`*
**Default**— No value
**Editing Level**—Basic

`search-filter` *`search-filter`*—(Optional) Directory search filter that the agent should use.

**Value**— LDAP search filter
**Default**— No value
**Editing Level**—Basic

`search-scope (object | one-level | sub-tree)`—(Optional) Location in the directory relative to the base DN from which the NIC agent can retrieve information.

**Value**— One of the following options:

- 0—Object; entry specified in the Search Base field only
- 1—One level; entry specified in the Search Base field and objects that are subordinate by one level
- 2—Subtree of entry specified in the Search Base field

**Default**— sub-tree
**Editing Level**—Basic

`server-url` *`server-url`*— URL that identifies the location of the primary directory server to which this NIC agent connects.

**Value**— Location of the directory that stores configuration information in URL string format protocol:// *`host`*:*`portNumber`* where:

- *`protocol`* —ldap or ldaps
- *`host`* —IP address or name of directory host
- *`portNumber`* —Number of TCP/IP port

Example—ldap://127.0.0.1:389/

**Default**— No value
**Editing Level**—Basic

`directory-backup-urls` *`directory-backup-urls`*—(Optional) URLs that identify the locations of backup directory servers. Backup servers are used if the primary directory server is not accessible.

**Value**— URLs of redundant directories separated by semicolons.

Example—ldap://127.0.0.1:389/

**Default**— No value
**Editing Level**—Basic

`key-attribute-name` *`key-attribute-name`*— Name of the directory attribute that the NIC agent uses for the network data object called key. You can define these attribute names if you use a customized key attribute processor.

Before you change the value of this option, contact Juniper Networks Professional Services or Juniper Networks Customer Support.

**Value**— Name of one or more attributes in the directory. Use commas to separate attribute names.

Example—virtualRouterName

**Default**— No value
**Editing Level**—Expert

`value-attribute-name` *`value-attribute-name`*—(Optional) Directory attribute that the NIC agent uses for the network data object called value. Specify only if the agent publishes mappings.

Before you change the value of this option, contact Juniper Networks Professional Services or Juniper Networks Customer Support.

**Value**— Name of an attribute in the directory.

Example—SaeId

**Default**— No value
**Editing Level**—Expert

`network-data-types` *`network-data-types`*— Names of the data types that this NIC agent publishes.

Before you change the value of this option, contact Juniper Networks Professional Services or Juniper Networks Customer Support.

**Value**— Data type in the form *`key, value.`* If there is more than one data type, separate entries with commas.

Example

- Agent to publish IP pools—networkDataTypes=IpPool
- Agent is to publish mappings between IP pools and VRs—networkDataTypes=IpPool, Vr

**Default**— No value
**Editing Level**—Expert

`event-life-expectancy` *`event-life-expectancy`*—(Optional) Length of time that data is valid after the NIC proxy receives data associated with events published by this agent.

Before you change the value of this option, contact Juniper Networks Professional Services or Juniper Networks Customer Support.

**Value**— Number of seconds in the range 0–4294967295

- 0—Data does not expire
- Other values—Actual life expectancy of data

**Default**— 0
**Editing Level**—Expert

`enable-directory-eventing`—(Optional) Specifies whether NIC polls the directory for changes.

**Value**— One of the following:

- true—Enable polling.
- false—Disable polling

**Default**—true
**Editing Level**—Expert

`directory-connection-id` *`directory-connection-id`*— Name for directory connection in SNMP agent view.

**Value**— ID for connection manager.

Example—DIRAGENT_POOL_VR

**Default**— No value
**Editing Level**—Expert

`snmp-agent`—(Optional) Enable the SDX SNMP agent to export MIBs for this directory connection.

**Editing Level**—Expert

`share-directory-connection`—(Optional) Enable DES listeners of NIC agents to share a connection to the directory.

Do not change this value unless instructed to do so by Juniper Networks.

**Editing Level**—Expert

`polling-interval` *`polling-interval`*— Time interval at which the SRC component polls the directory.

**Value**—Integer in the range 30–2147483647
**Default**— 30
**Editing Level**—Expert

`retry-interval` *`retry-interval`*— Length of time that the directory monitoring system waits to initiate a directory connection after an unsuccessful attempt to connect to the directory.

**Value**—Integer in the range -2147483648–2147483647 s
**Default**— No value
**Editing Level**—Expert

### Required Privilege Level

system

### Required Editing Level

Basic

# shared nic scenario *name* agents *name* configuration properties

### Syntax

```
shared nic scenario name agents name configuration properties {
     resolvers-list resolvers-list;
     roles-list roles-list;
     data-sources data-sources;
     network-data-types network-data-types;
     publishing-interval publishing-interval;
     event-life-expectancy event-life-expectancy;
     reverse-values;
}
```

### Hierarchy Level

```
[edit shared nic scenario name agents name configuration properties]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure properties agents. A properties agent retrieves information from one or more specified property files and makes event information based on the information in the file available to the NIC.

Although a properties agent may be used by an SRC application, typically you do not need to configure it. Before you change the value of this statement or the value of any of the options for this statement, contact Juniper Networks Professional Services or Juniper Networks Customer Support.

`resolvers-list` *`resolvers-list`*—(Optional) Names of NIC resolvers to which this agent sends events. If you do not define a list of the NIC resolvers, you must define a list of roles.

**Value**— List of paths to NIC resolvers; paths are relative to the static configuration object. Separate resolvers with commas.
**Default**— No value
**Editing Level**—Expert

`roles-list` *`roles-list`*—(Optional) Names of NIC roles to which this agent sends events. All resolvers that participate in a role receive events.

If you do not define the names of the NIC roles, you must define a list of resolvers.

**Value**— Names of NIC roles in the format *`realmName`* `:` *`roleName`* . Use commas to separate one role from another in the list.
**Default**— No value
**Editing Level**—Expert

`data-sources` *`data-sources`*— List of URIs or filenames of property files that provides information about NIC events to the NIC system. You must provide at least one URI or filename.

At this time, the only supported format for the data source is a property file.

**Value**— URIs or filenames separated by commas
**Default**— No value
**Editing Level**—Basic

`network-data-types` *`network-data-types`*— Data types that the agent publishes.

For more information, see the documentation for the NIC resolution process.

If the agent publishes mappings, specify two data types in the format *`key`* , *`value`* . Use commas to separate entries.

**Value**— Data type in the format *`key`* or *`key`* , *`value`* , where

- *`key`* —Name of data key
- *`value`* — Name of data value

Example—IpPool, InterfaceId

**Default**— No value
**Editing Level**—Expert

`publishing-interval` *`publishing-interval`*—(Optional) Interval at which the NIC agent sends updates to the NIC resolvers.

**Value**— Number of seconds in the range 0–2147483647
**Default**—60
**Editing Level**—Expert

`event-life-expectancy` *`event-life-expectancy`*—(Optional) Length of time that data is valid after the NIC proxy receives data associated with events published by this agent.

**Value**— Number of seconds in the range 0–4294967295

- 0—Data does not expire
- Other values—Actual life expectancy of data

**Default**—0
**Editing Level**—Expert

`reverse-values`—(Optional) Specifies whether a property name is made available as a NIC key or a NIC value. If enabled, properties are published as keys.

**Editing Level**—Normal

### Required Privilege Level

system

### Required Editing Level

Basic

# shared nic scenario *name* agents *name* configuration sae-client

### Syntax

```
shared nic scenario name agents name configuration sae-client {
     principal principal;
     credentials credentials;
     subscriber-id (user-ip-address | dn | login-name | interface-name | primary-user-name);
     sae-connection-threads sae-connection-threads;
     sae-retry-interval sae-retry-interval;
     resolvers-list resolvers-list;
     roles-list roles-list;
     search-base search-base;
     search-filter search-filter;
     search-scope (object | one-level | sub-tree);
     server-url server-url;
     directory-backup-urls directory-backup-urls;
     key-attribute-name key-attribute-name;
     value-attribute-name value-attribute-name;
     network-data-types network-data-types;
     event-life-expectancy event-life-expectancy;
     enable-directory-eventing;
     directory-connection-id directory-connection-id;
     snmp-agent;
     share-directory-connection;
     polling-interval polling-interval;
     retry-interval retry-interval;
}
```

### Hierarchy Level

`[edit shared nic scenario name agents name configuration sae-client]`

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure properties for SAE client agents. When you use a configuration scenario provided in the SRC software, you typically change only the following options:

- `search-base`
- `search-filter`
- `search-scope`
- `server-url`
- `backup-servers-url`
- `principal`
- `credentials`

  `principal principal`— DN that the NIC agent uses for authentication to access the directory.

  **Value**— *`DN, base`*

  Example—*cn=umcadmin*, *`base`*

  **Default**— cn=umcadmin, <base>
  **Editing Level**—Basic

`credentials` *`credentials`*— Password with which the NIC agent accesses the directory.

**Value**— *`password`*
**Default**—admin123
**Editing Level**—Basic

`subscriber-id (user-ip-address | dn | login-name | interface-name | primary-user-name)`— The SAE subscriber type. The NIC passes subscriber ID of the specified type to the SAE external interface of active SAEs to determine which SAE has a user session for the subscriber.

**Value**— One of the following options:

- *`user-ip-address`* —Subscriber's IP address
- *`dn`* —DN that identifies the subscriber in the directory
- *`login-name`* —Login name that identifies the subscriber
- *`interface-name`* —Name of the interface through which the subscriber traffic passes
- *`primary-user-name`* —User name that identifies the subscriber

**Default**— No value
**Editing Level**—Basic

`sae-connection-threads` *`sae-connection-threads`*—(Optional) Size of the thread pool for contacting SAEs during resolution. These threads are shared among all resolution requests and are spanned in paralllel one thread per SAE per resolution request. You may want to set this value higher than the default if you have multiple SAEs in your network and a high resolution rate.

**Value**— Number of threads
**Default**— 5
**Editing Level**—Advanced

`sae-retry-interval` *`sae-retry-interval`*—(Optional) Min. length of time that the agent waits before it sends a resolution request to a particular SAE after an unsuccessful attempt to contact it.

**Value**— Retry interval in seconds
**Default**— 30
**Editing Level**—Advanced

`resolvers-list` *`resolvers-list`*—(Optional) Names of NIC resolvers to which this agent sends events. If you do not define a list of the NIC resolvers, you must define a list of roles.

Before you change the value of this option, contact Juniper Networks Professional Services or Juniper Networks Customer Support.

**Value**— List of paths to NIC resolvers; paths are relative to the static configuration object. Separate resolvers with commas.

Example—/realms/ip/B1, /realms/sharedIp/B1,/realms/login/D1

**Default**— No value
**Editing Level**—Expert

`roles-list` *`roles-list`*—(Optional) Names of NIC roles to which this agent sends events. All resolvers that participate in a role receive events. If you do not define the names of the NIC roles, you must define a list of resolvers.

Before you change the value of this option, contact Juniper Networks Professional Services or Juniper Networks Customer Support.

**Value**— Names of NIC roles in the format *`realmName`*`:`*`roleName`*. Use commas to separate one role from another in the list.
**Default**— No value
**Editing Level**—Expert

`search-base` *`search-base`*— DN of the location in the directory from which the agent should read information.

**Value**— *`DN, base`*
**Default**— No value
**Editing Level**—Basic

`search-filter` *`search-filter`*—(Optional) Directory search filter that the agent should use.

**Value**— LDAP search filter
**Default**— No value
**Editing Level**—Basic

`search-scope (object | one-level | sub-tree)`—(Optional) Location in the directory relative to the base DN from which the NIC agent can retrieve information.

**Value**— One of the following options:

- 0—Object; entry specified in the Search Base field only
- 1—One level; entry specified in the Search Base field and objects that are subordinate by one level
- 2—Subtree of entry specified in the Search Base field

**Default**— sub-tree
**Editing Level**—Basic

`server-url` *`server-url`*— URL that identifies the location of the primary directory server to which this NIC agent connects.

**Value**— Location of the directory that stores configuration information in URL string format protocol:// *host*:*portNumber* where:

- *protocol* —ldap or ldaps
- *host* —IP address or name of directory host
- *portNumber* —Number of TCP/IP port

Example—ldap://127.0.0.1:389/

**Default**— No value
**Editing Level**—Basic

`directory-backup-urls` *directory-backup-urls*—(Optional) URLs that identify the locations of backup directory servers. Backup servers are used if the primary directory server is not accessible.

**Value**— URLs of redundant directories separated by semicolons.

Example—ldap://127.0.0.1:389/

**Default**— No value
**Editing Level**—Basic

`key-attribute-name` *key-attribute-name*— Name of the directory attribute that the NIC agent uses for the network data object called key. You can define these attribute names if you use a customized key attribute processor.

Before you change the value of this option, contact Juniper Networks Professional Services or Juniper Networks Customer Support.

**Value**— Name of one or more attributes in the directory. Use commas to separate attribute names.

Example—virtualRouterName

**Default**— No value
**Editing Level**—Expert

`value-attribute-name` *value-attribute-name*—(Optional) Directory attribute that the NIC agent uses for the network data object called value. Specify only if the agent publishes mappings.

Before you change the value of this option, contact Juniper Networks Professional Services or Juniper Networks Customer Support.

**Value**— Name of an attribute in the directory.

Example—SaeId

**Default**— No value
**Editing Level**—Expert

`network-data-types` *`network-data-types`*— Names of the data types that this NIC agent publishes.

Before you change the value of this option, contact Juniper Networks Professional Services or Juniper Networks Customer Support.

**Value**— Data type in the form *`key, value.`* If there is more than one data type, separate entries with commas.

Example

- Agent to publish IP pools—networkDataTypes=IpPool
- Agent is to publish mappings between IP pools and VRs—networkDataTypes=IpPool, Vr

**Default**— No value
**Editing Level**—Expert

`event-life-expectancy` *`event-life-expectancy`*—(Optional) Length of time that data is valid after the NIC proxy receives data associated with events published by this agent.

Before you change the value of this option, contact Juniper Networks Professional Services or Juniper Networks Customer Support.

**Value**— Number of seconds in the range 0–4294967295

- 0—Data does not expire
- Other values—Actual life expectancy of data

**Default**— 0
**Editing Level**—Expert

`enable-directory-eventing`—(Optional) Specifies whether NIC polls the directory for changes.

**Value**— One of the following:

- true—Enable polling.
- false—Disable polling

**Default**—true
**Editing Level**—Expert

`directory-connection-id` *`directory-connection-id`*— Name for directory connection in SNMP agent view.

**Value**— ID for connection manager.

Example—DIRAGENT_POOL_VR

**Default**— No value
**Editing Level**—Expert

`snmp-agent`—(Optional) Enable the SDX SNMP agent to export MIBs for this directory connection.

**Editing Level**—Expert

`share-directory-connection`—(Optional) Enable DES listeners of NIC agents to share a connection to the directory.

Do not change this value unless instructed to do so by Juniper Networks.

**Editing Level**—Expert

`polling-interval` *`polling-interval`*— Time interval at which the SRC component polls the directory.

**Value**—Integer in the range 30–2147483647
**Default**— 30
**Editing Level**—Expert

`retry-interval` *`retry-interval`*— Length of time that the directory monitoring system waits to initiate a directory connection after an unsuccessful attempt to connect to the directory.

**Value**—Integer in the range -2147483648–2147483647 s
**Default**— No value
**Editing Level**—Expert

## Required Privilege Level

system

## Required Editing Level

Basic

# shared nic scenario *name* agents *name* configuration sae-plug-in

### Syntax

```
shared nic scenario name agents name configuration sae-plug-in {
     resolvers-list resolvers-list;
     plug-in-event-type (Interface | User);
     key-attribute-name key-attribute-name;
     key-attribute-processor key-attribute-processor;
     value-attribute-name value-attribute-name;
     value-attribute-processor value-attribute-processor;
     naming-context naming-context;
     event-filter event-filter;
     share-the-event-system;
     number-of-events number-of-events;
     network-data-types network-data-types;
     event-life-expectancy event-life-expectancy;
     ignore-empty-or-unknown-data;
     process-interim-based-on-sessionid;
}
```

### Hierarchy Level

```
[edit shared nic scenario name agents name configuration sae-plug-in]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure properties for SAE plug-in agents. When you use a configuration scenario provided in the SRC software, you typically change only the following options:

- `event-filter`
- `number-of-events`

`resolvers-list` *`resolvers-list`*—(Optional) Names of NIC resolvers to which this agent sends events. If you do not define a list of the NIC resolvers, you must define a list of roles.

Before you change the value of this option, contact Juniper Networks Professional Services or Juniper Networks Customer Support.

**Value**— List of paths to NIC resolvers; paths are relative to the static configuration object. Separate resolvers with commas.

Example—/realms/dB/E1

**Default**— No value
**Editing Level**—Expert

`plug-in-event-type (Interface | User)`—(Optional) Types of plug-in events that the agent supports.

Before you change the value of this option, contact Juniper Networks Professional Services or Juniper Networks Customer Support.

**Value**— One of the following:

- User—Agent supports user-tracking plug-in events.
- Interface—Agent supports interface-tracking plug-in events.

**Default**—User
**Editing Level**—Expert

`key-attribute-name` *`key-attribute-name`*— Names of the plug-in attributes that provide information for the data key. You can define these attribute names if you use a customized key attribute processor.

The list can contain one or more plug-in attributes. If the format of the single plug-in attribute is not a string or you specify multiple plug-in attributes, the agent passes the data to the key processor to construct the data value in string format. In this case, you must specify the processor in the Key Attribute Processor field.

Before you change the value of this option, contact Juniper Networks Professional Services or Juniper Networks Customer Support.

**Value**— Name of one or more attributes in the directory. Use commas to separate attribute names.

Example—PA_USER_DN,PA_ROUTER_NAME

**Default**— No value
**Editing Level**—Expert

`key-attribute-processor` *`key-attribute-processor`*—(Optional) Name of the Java class that the agent uses to generate the data key object. If no class is specified, there can be only one key event attribute.

Configure a key attribute processor if the agent acquires for the key value either a single plug-in attribute that is not in string format or multiple plug-in attributes.

Before you change the value of this option, contact Juniper Networks Professional Services or Juniper Networks Customer Support.

**Value**— Path to Java class

Example—net.juniper.smgt.gateway.nic.agent. saeplugin.InterfaceIdProcessor

**Default**— No value
**Editing Level**—Expert

`value-attribute-name` *`value-attribute-name`*— List of plug-in attributes that provide information for the data value.

The list can contain one or more plug-in attributes. If the format of the single plug-in attribute is not a string or you specify multiple plug-in attributes, the agent passes the data to the value processor to construct the data value in string format. In this case, you must specify the processor for the value attribute processor option.

Before you change the value of this option, contact Juniper Networks Professional Services or Juniper Networks Customer Support.

**Value**— List of comma-separated plug-in attributes.

Example—PA_USER_DN, PA_ROUTER_NAME

**Default**— No value
**Editing Level**—Expert

`value-attribute-processor` *`value-attribute-processor`*—(Optional) Name of the Java class that the agent uses to generate the data value object. If no class is specified, there can be only one value event attribute.

Configure a value attribute processor if the agent acquires for the data value either a single plug-in attribute that is not in string format or multiple plug-in attributes.

Before you change the value of this option, contact Juniper Networks Professional Services or Juniper Networks Customer Support.

**Value**— Path to Java class

Example—net.juniper.smgt.gateway.nic.agent. saeplugin.InterfaceProcessor

**Default**— No value
**Editing Level**—Expert

`naming-context` *`naming-context`*— CORBA naming context in which the agent publishes references.

If you configure event sharing for multiple SAE plug-in agents, this setting must be identical for all those agents.

The incoming interface is bound under the specified context with the name saePort. The mirror interface has the name mirrorPort.

Before you change the value of this option, contact Juniper Networks Professional Services or Juniper Networks Customer Support.

**Value**— String that must match the context name in the objectref property for this SAE plug-in. For more information, see the documentation for the NIC resolution process.

Example—nicsaetestDNOttawa

This example matches the context name of the following objectref property:

corbaname::10.10.10.10:900/NameService#nicsaetestDNOttawa/saePort

In this property:

- 10.10.10.10—Address of the machine running the CORBA naming server
- 900—TCP/IP port
- saePort—Name of plug-in (in this case, the agent eventing system)

**Default**— No value
**Editing Level**—Expert

`event-filter` *`event-filter`*— LDAP filter that restricts the events that the agent collects.

**Value**— *`pluginAttribute`* = *`attributeValue`*

where

- *`pluginAttribute`* — Plug-in attribute name
- *`attributeValue`* — Value of filter

Example—PA_USER_TYPE=INTF

**Default**— No value
**Editing Level**—Basic

`share-the-event-system`—(Optional) Enable an agent to share the event system with other agents in the same host. If you configure event sharing for multiple SAE plug-in agents, this setting must be identical for all those agents.

Before you change the value of this option, contact Juniper Networks Professional Services or Juniper Networks Customer Support.

**Editing Level**—Expert

`number-of-events` *`number-of-events`*—(Optional) Number of events that the SAE sends to the agent at one time during state synchronization. This value is used if state synchronization is enabled.

**Value**— Integer in the range 1–2147483647
**Default**—50
**Editing Level**—Basic

`network-data-types` *`network-data-types`*— Data types that the agent publishes.

For more information, see the documentation for the NIC resolution process.

If the agent publishes mappings, specify two data types in the format *`key, value`* . Use commas to

separate entries.

Before you change the value of this option, contact Juniper Networks Professional Services or Juniper Networks Customer Support.

**Value**— Data type in the format *key* or *key* , *value* , where

- *key* —Name of data key
- *value* — Name of data value

Example—Dn, Vr

**Default**— No value
**Editing Level**—Expert

`event-life-expectancy` *event-life-expectancy*—(Optional) Length of time that data is valid after the NIC proxy receives data associated with events published by this agent.

Before you change the value of this option, contact Juniper Networks Professional Services or Juniper Networks Customer Support.

**Value**— Number of seconds in the range 0–4294967295

- 0—Data does not expire
- Other values—Actual life expectancy of data

**Default**— 0
**Editing Level**—Expert

`ignore-empty-or-unknown-data`—(Optional) Ignore events if either Key or Value is empty or unknown data. For eg., empty ip address or 0.0.0.0

**Value**—

- true— Ignore the event if network data is empty
- false— Process the events even if the network data is empty

**Default**—false
**Editing Level**—Basic

`process-interim-based-on-sessionid`—(Optional) This configuration is mainly used along with Dual stack subscriber sessions. For dual stack subscribers if ip goes down, an interim event is published.Since this interim event doesn't have the ip address to be removed, the subscriber entry with same session id will be removed.

**Value**—

- true— Process interim events based on session-id
- false— Process interim events based on network-data (ie., key.value)

**Default**—false
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared nic scenario *name* agents *name* configuration xml

### Syntax

```
shared nic scenario name agents name configuration xml {
     resolvers-list resolvers-list;
     roles-list roles-list;
     data-source data-source;
     search-base search-base;
     search-filter search-filter;
     search-scope (0 | 1 | 2);
     mapping-file mapping-file;
     root-tag-name root-tag-name;
     key-attribute-name key-attribute-name;
     key-attribute-processor key-attribute-processor;
     value-attribute-name value-attribute-name;
     value-attribute-processor value-attribute-processor;
     network-data-types network-data-types;
     publishing-interval publishing-interval;
     event-life-expectancy event-life-expectancy;
     enable-eventing;
}
```

### Hierarchy Level

`[edit shared nic scenario name agents name configuration xml]`

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure an XML agent. An XML agent retrieves information from a specified XML document and makes information available to the NIC based on specified tags in the file. An XML agent provides information about one type of data or mappings.

Although an XML agent may be used by an SRC application, typically you do not need to configure it. Before you change the value of this statement or the value of any of the options for this statement, contact Juniper Networks Professional Services or Juniper Networks Customer Support.

`resolvers-list` *`resolvers-list`*—(Optional) Names of NIC resolvers to which this agent sends events. If you do not define a list of the NIC resolvers, you must define a list of roles.

**Value**— List of paths to NIC resolvers; paths are relative to the static configuration object. Separate resolvers with commas.
**Default**— No value
**Editing Level**—Expert

`roles-list` *`roles-list`*—(Optional) Names of NIC roles to which this agent sends events. All resolvers that participate in a role receive events.

If you do not define the names of the NIC roles, you must define a list of resolvers.

**Value**— Names of NIC roles in the format *`realmName`* `:` *`roleName`* `.` Use commas to separate one role from another in the list.
**Default**— No value

**Editing Level**—Expert

`data-source` *`data-source`*— URI of the XML document that provides information about NIC events to the NIC system. You must provide a URI for the XML document.

At this time, the only supported schema is a file.

**Value**— URI
**Default**— No value
**Editing Level**—Basic

`search-base` *`search-base`*—(Optional) Root XML element in the specified XML document at which the agent starts to search the XML document. If you do not specify an element for the search base, the agent starts searching at the top of the file.

**Value**— XML element
**Default**— No value
**Editing Level**—Normal

`search-filter` *`search-filter`*—(Optional) Search filter that the agent uses to read entries in an XML document.

**Value**— Search filter syntax defined in RFC 2254— The String Representation of LDAP Search Filters (December 1997)
**Default**— No value
**Editing Level**—Normal

`search-scope (0 | 1 | 2)`—(Optional) Level at which the agent searches the XML document.

**Value**— Search level:

- Object—Searches the object defined by the search base entry.
- One level—Specifies objects at the same level as the object defined by the search base entry.
- Subtree—Searches objects subordinate to the object defined by the search base entry.

**Default**— No value
**Editing Level**—Basic

`mapping-file` *`mapping-file`*—(Optional) Name of the property file that maps XML tag names to corresponding Java class names. Enter a value if the XML document does not conform to the SDX XML schema.

**Value**— Filename
**Default**— No value

**Editing Level**—Normal

`root-tag-name` *`root-tag-name`*—(Optional) Tag name of the root XML element in the data source. Enter a value if the XML document does not follow the SDX XML schema.

**Value**— Tag name
**Default**— No value
**Editing Level**—Normal

`key-attribute-name` *`key-attribute-name`*— List of XML attribute names to be used in constructing the key network data object for a custom processor.

**Value**—Text
**Editing Level**—Expert

`key-attribute-processor` *`key-attribute-processor`*—(Optional) The name of the Java class for processing the key object.

If specified, it will be used to produce the key network data object by using the list of attributes read from the directory. If no class is specified, there must be only one key LDAP attribute (in the key.attrNames property), and the attribute value must be in the proper format expected by the data type.

**Value**—Text
**Editing Level**—Expert

`value-attribute-name` *`value-attribute-name`*—(Optional) List of LDAP attribute names to be used in constructing a value for the network data object. Specified attribute names if the agent publishes mappings or if you use a custom processor.

**Value**— List of attribute names. Use commas to separate entries.
**Editing Level**—Expert

`value-attribute-processor` *`value-attribute-processor`*—(Optional) The name of the Java class for processing the value object.

If specified, it will be used to produce the value network data object by using the list of attributes read from the directory. If no class is specified, there must be only one value attribute (in the value.attrNames property), and the attribute value must be in the proper format expected by the data type.

**Value**—Text
**Editing Level**—Expert

`network-data-types` *`network-data-types`*— Data types that the agent publishes.

For more information, see the documentation for the NIC resolution process.

If the agent publishes mappings, specify two data types in the format *key* , *value* . Use commas to separate entries.

**Value**— Data type in the format *key* or *key* , *value* , where

- *key* —Name of data key
- *value* — Name of data value

Example—IpPool, InterfaceId

**Default**— No value
**Editing Level**—Expert

publishing-interval *publishing-interval*—(Optional) Interval at which the NIC agent sends updates to the NIC resolvers.

**Value**— Number of seconds in the range 0–2147483647
**Default**—60
**Editing Level**—Expert

event-life-expectancy *event-life-expectancy*—(Optional) Length of time that data is valid after the NIC proxy receives data associated with events published by this agent.

**Value**— Number of seconds in the range 0–4294967295

- 0—Data does not expire
- Other values—Actual life expectancy of data

**Default**—0
**Editing Level**—Expert

enable-eventing—(Optional) Enable Eventing

**Default**—true
**Editing Level**—Expert

## Required Privilege Level

system

## Required Editing Level

Basic

# shared nic scenario *name* hosts

### Syntax

`shared nic scenario` *`name`* `hosts` *`name`* `...`

### Hierarchy Level

`[edit shared nic scenario` *`name`* `hosts]`

### Description

Configure a NIC host for a specified NIC configuration scenario.

### Options

`name` *`name`*— Name of the NIC host.

**Value**—Text

### Required Privilege Level

system

### Required Editing Level

Basic

# shared nic scenario *name* hosts logger

## Syntax

`shared nic scenario` *`name`* `hosts logger` *`name`* `...`

## Hierarchy Level

`[edit shared nic scenario` *`name`* `hosts logger]`

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure a logging component for NIC. Logging can be to a file or to the system logging utility.

## Options

`name` *`name`*— Name of a NIC logging component.

**Value**—Text

## Required Privilege Level

system

## Required Editing Level

Normal

# shared nic scenario *name* hosts logger *name* file

## Syntax

```
shared nic scenario name hosts logger name file {
     filter filter;
     device-filter-key device-filter-key;
     filename filename;
     rollover-filename rollover-filename;
     maximum-file-size maximum-file-size;
}
```

## Hierarchy Level

```
[edit shared nic scenario name hosts logger name file]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure logging of messages to a file.

`filter filter`—(Optional) Filter to define which event messages the software logs or ignores. Filters can specify the logging level, such as debug, or can specify expressions. For information about expressions, see the documentation that describes how to configure logging.

**Value**— Log filter
**Default**— The default value is different for each type of component.
**Editing Level**—Basic

`device-filter-key device-filter-key`—(Optional) Filter the DEBUG logs specific to network device. The filtering can be done based on combinations of parameters namely router-name/interface-name/login-name. These parameters can be associated using AND (&) or OR (|) operators. Syntax: set device-filter-key (router-name=<val> & interface-name=<val> | login-name=<val> All three parameters are optional. Absence of a parameter would indicate match ANY. Example: set device-filter-key (router-name=<val>) would indicate match debug logs based on the router-name only irrespective of the interface-name or login-name. Note: 1. "device-filter-key" will NOT filter info/error/warning logs. 2. This version supports network device specific logging for COPs drivers only

**Value**— Log network device filter
**Default**— The default value is different for each type of component.
**Editing Level**—Basic

`filename filename`— Absolute path of the filename that contains the current logs.

**Note:** Make sure that the user under which the J2EE application server or Web application server runs has write access to this folder. If this user does not have write access to the default folder, configure the component or application to write logs in folders to which the user has write access.

**Value**— Filename
**Default**— By default, SRC components and applications write log files in the folder in which the component or application is started.
**Editing Level**—Basic

`rollover-filename` *`rollover-filename`*—(Optional) Absolute path of the filename that contains the log history. When the log file reaches the maximum size, the software closes the log file and renames it with the name you specify for the rollover file. If a previous rollover file exists, the software overwrites it. The software then reopens the log file and continues to save event messages in it.

**Value**— Path of filename

Example—/opt/UMC/sae/var/log/sae.alt

**Default**— The default value is different for each type of component.
**Editing Level**—Normal

`maximum-file-size` *`maximum-file-size`*—(Optional) Maximum size of the log file and the rollover file.

Do not set the maximum file size to a value greater than the available disk space.

**Value**—Integer in the range 0–10000000 kbytes
**Default**— 1000000
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Basic

# shared nic scenario *name* hosts logger *name* syslog

### Syntax

```
shared nic scenario name hosts logger name syslog {
     filter filter;
     host host;
     port port;
     facility facility;
     format format;
}
```

### Hierarchy Level

```
[edit shared nic scenario name hosts logger name syslog]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure logging of messages to system logging.

`filter` *`filter`*—(Optional) Filter to define which event messages the software logs or ignores. Filters can specify the logging level, such as debug, or can specify expressions. For information about expressions, see the documentation that describes how to configure logging.

**Value**— Log filter
**Default**— The default value is different for each type of component.
**Editing Level**—Basic

`host` *`host`*— IP address or name of a host that collects event messages by means of a standard system logging daemon.

**Value**— IP address or hostname
**Default**—loghost
**Editing Level**—Basic

`port` *`port`*—(Optional) Port number for system logging daemon.

**Value**— Port number in the range of 0–65535
**Default**— 514
**Editing Level**—Basic

`facility` *`facility`*

—(Optional) Type of system log in accordance with the system logging protocol.

**Value**—Integer in the range 0–23
**Default**— 3
**Editing Level**—Advanced

`format` *`format`*—(Optional) MessageFormat string that specifies how the information in an event message is printed. (The strings {#} are replaced with the log information [...]).

**Value**— MessageFormat string as specified in http://java.sun.com/j2se/1.4.2/docs/api/java/text/MessageFormat.html.

The fields available for events are:

- 0—Time and date of the event
- 1—Name of the thread generating the event
- 2—Text message of the event
- 3—Category of the event
- 4—Priority of the event

**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Basic

# shared nic scenario *name* hosts *name* configuration

### Syntax

```
shared nic scenario name hosts name configuration {
     hosted-resolvers hosted-resolvers;
     hosted-agents hosted-agents;
}
```

### Hierarchy Level

```
[edit shared nic scenario name hosts name configuration]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure NIC hosts.

### Options

`hosted-resolvers` *`hosted-resolvers`*— List of resolvers that should run on this host.

**Value**— Names of NIC resolvers which include the path of the locations of the NIC resolvers relative to the static configuration object. A forward slash (/) separates components in a path.

Example—/realms/sharedIp/A1,/realms/sharedIp/B1, /realms/sharedIp/C1,/realms/ip/A1,/realms/ip/B1, /realms/ip/C1,/realms/dn/A1,/realms/dn/B1,/realms/dn/C1, /realms/login/A1,/realms/login/B1,/realms/login/C1, /realms/login/D1

**Default**— No value
**Editing Level**—Basic

`hosted-agents` *`hosted-agents`*— List of paths to NIC agents that this host supports.

**Value**— Names of NIC agents that include the path of the locations of the NIC agents relative to the static configuration object. A forward slash (/) separates components in a path.

Example—/agents/VrSaeId,/agents/Router, /agents/PoolInterfaceId,/agents/InterfaceIdInterface

**Default**— No value

**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared nic scenario *name* hosts *name* configuration logger

### Syntax

```
shared nic scenario name hosts name configuration logger name ...
```

### Hierarchy Level

```
[edit shared nic scenario name hosts name configuration logger]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure a logging component for NIC hosts. Logging can be to a file or to the system logging utility.

### Options

`name` *`name`*— Name of the logging component.

**Value**—Text

### Required Privilege Level

system

### Required Editing Level

Normal

# shared nic scenario *name* hosts *name* configuration logger *name* file

### Syntax

```
shared nic scenario name hosts name configuration logger name file {
     filter filter;
     device-filter-key device-filter-key;
     filename filename;
     rollover-filename rollover-filename;
     maximum-file-size maximum-file-size;
}
```

### Hierarchy Level

```
[edit shared nic scenario name hosts name configuration logger name file]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure logging of messages to a file.

`filter filter`—(Optional) Filter to define which event messages the software logs or ignores. Filters can specify the logging level, such as debug, or can specify expressions. For information about expressions, see the documentation that describes how to configure logging.

**Value**— Log filter
**Default**— The default value is different for each type of component.
**Editing Level**—Basic

`device-filter-key device-filter-key`—(Optional) Filter the DEBUG logs specific to network device. The filtering can be done based on combinations of parameters namely router-name/interface-name/login-name. These parameters can be associated using AND (&) or OR (|) operators. Syntax: set device-filter-key (router-name=<val> & interface-name= <val> | login-name=<val> All three parameters are optional. Absence of a parameter would indicate match ANY. Example: set device-filter-key (router-name=<val>) would indicate match debug logs based on the router-name only irrespective of the interface-name or login-name. Note: 1. "device-filter-key" will NOT filter info/error/warning logs. 2. This version supports network device specific logging for COPs drivers only

**Value**— Log network device filter
**Default**— The default value is different for each type of component.
**Editing Level**—Basic

`filename filename`— Absolute path of the filename that contains the current logs.

**Note:** Make sure that the user under which the J2EE application server or Web application server runs has write access to this folder. If this user does not have write access to the default folder, configure the component or application to write logs in folders to which the user has write access.

**Value**— Filename
**Default**— By default, SRC components and applications write log files in the folder in which the component or application is started.
**Editing Level**—Basic

`rollover-filename rollover-filename`—(Optional) Absolute path of the filename that contains the log history. When the log file reaches the maximum size, the software closes the log file and renames it with the name you specify for the rollover file. If a previous rollover file exists, the software overwrites it. The software then reopens the log file and continues to save event messages in it.

**Value**— Path of filename

Example—/opt/UMC/sae/var/log/sae.alt

**Default**— The default value is different for each type of component.
**Editing Level**—Normal

`maximum-file-size` *`maximum-file-size`*—(Optional) Maximum size of the log file and the rollover file.

Do not set the maximum file size to a value greater than the available disk space.

**Value**—Integer in the range 0–10000000 kbytes
**Default**— 1000000
**Editing Level**—Normal

**Required Privilege Level**

system

**Required Editing Level**

Basic

# shared nic scenario *name* hosts *name* configuration logger *name* syslog

### Syntax

```
shared nic scenario name hosts name configuration logger name syslog {
     filter filter;
     host host;
     port port;
     facility facility;
     format format;
}
```

### Hierarchy Level

```
[edit shared nic scenario name hosts name configuration logger name syslog]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure logging of messages to system logging.

`filter` *`filter`*—(Optional) Filter to define which event messages the software logs or ignores. Filters can specify the logging level, such as debug, or can specify expressions. For information about expressions, see the documentation that describes how to configure logging.

**Value**— Log filter
**Default**— The default value is different for each type of component.
**Editing Level**—Basic

`host` *`host`*— IP address or name of a host that collects event messages by means of a standard system logging daemon.

**Value**— IP address or hostname
**Default**—loghost
**Editing Level**—Basic

`port` *`port`*—(Optional) Port number for system logging daemon.

**Value**— Port number in the range of 0–65535
**Default**— 514
**Editing Level**—Basic

`facility` *`facility`*—(Optional) Type of system log in accordance with the system logging protocol.

**Value**—Integer in the range 0–23
**Default**— 3
**Editing Level**—Advanced

`format` *`format`*—(Optional) MessageFormat string that specifies how the information in an event message is printed. (The strings {#} are replaced with the log information [...]).

**Value**— MessageFormat string as specified in http://java.sun.com/j2se/1.4.2/docs/api/java/text/MessageFormat.html.

The fields available for events are:

- 0—Time and date of the event
- 1—Name of the thread generating the event
- 2—Text message of the event

3—Category of the event
- 4—Priority of the event

**Editing Level**—Advanced

**Required Privilege Level**

system

**Required Editing Level**

Basic

# shared nic scenario *name* nic-locators

## Syntax

`shared nic scenario` *`name`* `nic-locators` *`name`* `...`

## Hierarchy Level

`[edit shared nic scenario` *`name`* `nic-locators]`

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure a NIC locator or NIC proxy, a NIC component that requests data resolution.

## Options

`name` *`name`*— Name of the NIC locator.

**Value**—Text

## Required Privilege Level

system

## Required Editing Level

Normal

# shared nic scenario *name* nic-locators *name* resolution

### Syntax

```
shared nic scenario name nic-locators name resolution {
     resolver-name resolver-name;
     key-type key-type;
     value-type value-type;
     expect-multiple-values;
     constraints constraints;
}
```

### Hierarchy Level

```
[edit shared nic scenario name nic-locators name resolution]
```

### Description

Configure properties for a NIC proxy (NIC locator), the NIC component that requests information on behalf of an application.

`resolver-name` *`resolver-name`*— NIC resolver that the NIC proxy uses. This resolver must be the same as one that is configured on the NIC host.

**Value**— Path to the NIC resolver.

Example—/realms/ip/A1,/realms/dn/A1.

**Default**— No value
**Editing Level**—Basic

`key-type` *`key-type`*— Type of data used that the key provides for the NIC resolution. You can provide a qualifier to a data type to distinguish between different instances of a data type in a resolution scenario, or to provide information about a data type to clarify the use of that data type in a resolution.

**Value**— One of the following types:

- Ip —Subscriber's IP address
- Vr—Virtual router
- Interface—Name of router's interface
- InterfaceId—Identifier of an interface on the router
- Dn—LDAP distinguished name for subscriber
- LoginName—Subscriber login ID
- AnyString—Other information

To qualify data types, enter a qualifier within parentheses.

Example—LoginName(username).

**Default**— No value
**Editing Level**—Basic

`value-type` *`value-type`*— Type of value to be returned in the resolution. The value type varies according to the application that uses the NIC proxy.

**Value**— One of the following types:

- SaeId—SAE server ID
- LoginName—Subscriber login ID
- AnyString—Other information

To qualify data types, enter a qualifier within parentheses.

Example—LoginName(username).

**Default**— No value
**Editing Level**—Basic

`expect-multiple-values`—(Optional) Specifies whether or not the key can have multiple corresponding values.

**Editing Level**—Basic

`constraints` *`constraints`*—(Optional) Data type that a resolver uses during the resolution process. A constraint represents a condition that must or may be satisfied before the next stage of the resolution process can proceed.

Configure a constraint only if the constraint will be provided by the application in the resolution request. Typically, you do not need to configure constraints.

**Value**— Data types of constraints specified for the NIC resolution. Separate data types with commas.
**Default**— No value
**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Normal

# shared nic scenario *name* realms

## Syntax

`shared nic scenario` *`name`* `realms` *`name`* `...`

## Hierarchy Level

`[edit shared nic scenario` *`name`* `realms]`

## Description

Configure a NIC realm, the NIC component that consists of a group of resolvers that perform a series of resolution tasks to provide a mapping from a specified key to a specified data type.

Typically, you use the default realm configuration for the NIC configuration scenarios in the SRC software.

## Options

`name` *`name`*— Name of the NIC realm.

**Value**—Text

## Required Privilege Level

system

## Required Editing Level

Basic

# shared nic scenario *name* realms *name* configuration custom-resolvers

### Syntax

```
shared nic scenario name realms name configuration custom-resolvers name {
     value;
}
```

### Hierarchy Level

```
[edit shared nic scenario name realms name configuration custom-resolvers]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure an identifier to distinguish between different instances of the same data type in a resolution sequence. For the value enter the name of the data type.

### Options

`name` *`name`*— Identifier to append to data type.

**Value**—Text

*`value`*—

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Normal

# shared nic scenario *name* realms *name* configuration transitions

### Syntax

```
shared nic scenario name realms name configuration transitions name {
     value;
}
```

### Hierarchy Level

```
[edit shared nic scenario name realms name configuration transitions]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure a set of resolution sequences that map a property to a value.

### Options

`name` *`name`*— Identifier for a resolution that represents one transition, or step, in the resolution process. Use `?` to view the list of transitions for this realm, a group of resolvers that perform a series of resolution tasks to provide a mapping from a specified key to a specified data type.

**Value**—Text

*`value`*—

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Normal

# shared nic scenario *name* realms *name* resolvers

## Syntax

```
shared nic scenario name realms name resolvers name ...
```

## Hierarchy Level

```
[edit shared nic scenario name realms name resolvers]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure NIC resolvers— the components that process NIC resolution requests.

Before you change the value of this statement or the value of any of the options for this statement, contact Juniper Networks Professional Services or Juniper Networks Customer Support.

## Options

`name` *name*— Name of the NIC resolver.

**Value**—Text

## Required Privilege Level

system

## Required Editing Level

Basic

# shared nic scenario *name* realms *name* resolvers *name* configuration

### Syntax

```
shared nic scenario name realms name resolvers name configuration {
     resolver-role resolver-role;
     resolvers-list resolvers-list;
     roles-list roles-list;
}
```

### Hierarchy Level

```
[edit shared nic scenario name realms name resolvers name configuration]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure resolution from a NIC key to a NIC value.

### Options

`resolver-role` *`resolver-role`*— Configure a transition that defines a key to value mapping.

**Value**—Text
**Editing Level**—Normal

`resolvers-list` *`resolvers-list`*—(Optional) Names of NIC resolvers to which this agent sends events. If you do not define a list of the NIC resolvers, you must define a list of roles.

**Value**— List of paths to NIC resolvers; paths are relative to the static configuration object. Separate resolvers with commas.

Example—/realms/ip/A1, /realms/ip/B1

**Default**— No value
**Editing Level**—Normal

`roles-list` *`roles-list`*—(Optional) Names of NIC roles to which this agent sends events. All resolvers that participate in a role receive events.

If you do not define the names of the NIC roles, you must define a list of resolvers.

**Value**— Names of NIC roles in the format *`realmName`* `:` *`roleName`* . Use commas to separate one role from another in the list.
**Default**— No value
**Editing Level**—Normal

### Required Privilege Level

system

### Required Editing Level

Basic

# slot *number* network-publisher directory-connection

### Syntax

```
slot number network-publisher directory-connection {
     url url;
     base-dn base-dn;
     principal principal;
     credentials credentials;
}
```

### Hierarchy Level

```
[edit slot number network-publisher directory-connection]
```

### Release Information

Statement introduced in SRC Release 3.0.0

### Description

Configure directory connection properties that the network publisher uses to connect to the Juniper Networks database.

### Options

`url` *`url`*—(Optional) URL that the network publisher uses to connect to the Juniper Networks database.

**Value**— URL
**Default**—ldap://127.0.0.1:389
**Editing Level**—Basic

`base-dn` *`base-dn`*—(Optional) Specify the distinguished name (DN) of the subtree in the Juniper Networks database that stores data collected from routers running Junos OS.

**Value**— DN
**Default**—o=Network,<base>
**Editing Level**—Basic

`principal` *`principal`*—(Optional) Specify the DN that defines the username with which the network publisher accesses the Juniper Networks database.

**Value**— DN
**Default**—cn=cli,ou=Components,o=Operators,<base>

**Editing Level**—Basic

`credentials` *`credentials`*—(Optional) Specify the password with which the network publisher accesses the Juniper Networks database.

**Value**— *password*
**Default**—cli
**Editing Level**—Basic

## Required Privilege Level

No specific privilege required.

## Required Editing Level

Basic

# slot *number* network-publisher logger

## Syntax

```
slot number network-publisher logger name ...
```

## Hierarchy Level

```
[edit slot number network-publisher logger]
```

## Release Information

Statement introduced in SRC Release 3.0.0

## Description

Configure logging to a file or to a system log server.

## Options

`name` *`name`*— Name of logging destination.

**Value**—Text

## Required Privilege Level

No specific privilege required.

## Required Editing Level

Basic

# slot *number* network-publisher logger *name* file

## Syntax

```
slot number network-publisher logger name file {
     filter filter;
     device-filter-key device-filter-key;
     filename filename;
     rollover-filename rollover-filename;
     maximum-file-size maximum-file-size;
}
```

## Hierarchy Level

```
[edit slot number network-publisher logger name file]
```

## Release Information

Statement introduced in SRC Release 3.0.0

## Description

Configure logging to save messages in a file.

`filter filter`—(Optional) Filter to define which event messages the software logs or ignores. Filters can specify the logging level, such as debug, or can specify expressions. For information about expressions, see the documentation that describes how to configure logging.

**Value**— Log filter
**Default**— The default value is different for each type of component.
**Editing Level**—Basic

`device-filter-key device-filter-key`—(Optional) Filter the DEBUG logs specific to network device. The filtering can be done based on combinations of parameters namely router-name/interface-name/login-name. These parameters can be associated using AND (&) or OR (|) operators. Syntax: set device-filter-key (router-name=<val> & interface-name=<val> | login-name=<val> All three parameters are optional. Absence of a parameter would indicate match ANY. Example: set device-filter-key (router-name=<val>) would indicate match debug logs based on the router-name only irrespective of the interface-name or login-name. Note: 1. "device-filter-key" will NOT filter info/error/warning logs. 2. This version supports network device specific logging for COPs drivers only

**Value**— Log network device filter
**Default**— The default value is different for each type of component.
**Editing Level**—Basic

`filename filename`— Absolute path of the filename that contains the current logs.

**Note:** Make sure that the user under which the J2EE application server or Web application server runs has write access to this folder. If this user does not have write access to the default folder, configure the component or application to write logs in folders to which the user has write access.

**Value**— Filename
**Default**— By default, SRC components and applications write log files in the folder in which the component or application is started.
**Editing Level**—Basic

`rollover-filename` *`rollover-filename`*—(Optional) Absolute path of the filename that contains the log history. When the log file reaches the maximum size, the software closes the log file and renames it with the name you specify for the rollover file. If a previous rollover file exists, the software overwrites it. The software then reopens the log file and continues to save event messages in it.

**Value**— Path of filename

Example—/opt/UMC/sae/var/log/sae.alt

**Default**— The default value is different for each type of component.
**Editing Level**—Normal

`maximum-file-size` *`maximum-file-size`*—(Optional) Maximum size of the log file and the rollover file.

Do not set the maximum file size to a value greater than the available disk space.

**Value**—Integer in the range 0–10000000 kbytes
**Default**— 1000000
**Editing Level**—Normal

## Required Privilege Level

No specific privilege required.

## Required Editing Level

Basic

# slot *number* network-publisher logger *name* syslog

### Syntax

```
slot number network-publisher logger name syslog {
     filter filter;
     host host;
     port port;
     facility facility;
     format format;
}
```

### Hierarchy Level

```
[edit slot number network-publisher logger name syslog]
```

### Release Information

Statement introduced in SRC Release 3.0.0

### Description

Configure logging to send messages to the system log server.

`filter filter`—(Optional) Filter to define which event messages the software logs or ignores. Filters can specify the logging level, such as debug, or can specify expressions. For information about expressions, see the documentation that describes how to configure logging.

**Value**— Log filter
**Default**— The default value is different for each type of component.
**Editing Level**—Basic

`host host`— IP address or name of a host that collects event messages by means of a standard system logging daemon.

**Value**— IP address or hostname
**Default**—loghost
**Editing Level**—Basic

`port port`—(Optional) Port number for system logging daemon.

**Value**— Port number in the range of 0–65535
**Default**— 514
**Editing Level**—Basic

`facility` *`facility`*—(Optional) Type of system log in accordance with the system logging protocol.

**Value**—Integer in the range 0–23
**Default**— 3
**Editing Level**—Advanced

`format` *`format`*—(Optional) MessageFormat string that specifies how the information in an event message is printed. (The strings {#} are replaced with the log information [...]).

**Value**— MessageFormat string as specified in http://java.sun.com/j2se/1.4.2/docs/api/java/text/MessageFormat.html.

The fields available for events are:

- 0—Time and date of the event
- 1—Name of the thread generating the event
- 2—Text message of the event
- 3—Category of the event
- 4—Priority of the event

**Editing Level**—Advanced

## Required Privilege Level

No specific privilege required.

## Required Editing Level

Basic

# slot *number* network-publisher routers

### Syntax

```
slot number network-publisher routers {
     router-release-number router-release-number;
     router-script-version router-script-version;
}
```

### Hierarchy Level

```
[edit slot number network-publisher routers]
```

### Release Information

Statement introduced in SRC Release 3.0.0

### Description

Configure connections between routers running Junos OS and the network publisher. The network publisher connects to the Junos XML management protocol server on a router running Junos OS. Properties defined at this hierarchy level are applied by all the configured routers running Junos OS unless you specify different properties for a particular device.

`router-release-number` *`router-release-number`*—(Optional) Release number of the Junos OS running on the routers.

**Value**—Text
**Default**— No value
**Editing Level**—Basic

`router-script-version` *`router-script-version`*—(Optional) Version of Junos XML management protocol running on the routers running Junos OS.

**Value**—Text
**Default**—1.0
**Editing Level**—Expert

### Required Privilege Level

No specific privilege required.

### Required Editing Level

Basic

# slot *number* network-publisher routers authentication

### Syntax

```
slot number network-publisher routers authentication {
     login-name login-name;
     credentials credentials;
     protocol (telnet | ssh);
}
```

### Hierarchy Level

```
[edit slot number network-publisher routers authentication]
```

### Release Information

Statement introduced in SRC Release 3.0.0

### Description

Configure authentication properties for the routers running Junos OS to which the network publisher connects. Properties defined at this hierarchy level are applied to all the configured routers running Junos OS unless you specify different properties for a particular device.

### Options

`login-name` *`login-name`*—(Optional) Username to log in to the Junos OS.

**Value**—Text
**Default**— No value
**Editing Level**—Basic

`credentials` *`credentials`*—(Optional) Password to log in to the Junos OS.

**Value**— *password*
**Default**— No value
**Editing Level**—Basic

`protocol (telnet | ssh)`—(Optional) Authentication protocol that network publisher uses to access a router running Junos OS.

**Value**

- `telnet`— Use Junos XML management protocol over a Telnet connection.

- `ssh`— (Recommended) Use Junos XML management protocol over an SSH connection.

**Default**—ssh
**Editing Level**—Basic

### Required Privilege Level

No specific privilege required.

### Required Editing Level

Basic

# slot *number* network-publisher routers router

## Syntax

```
slot number network-publisher routers router router-name {
     address address;
     router-release-number router-release-number;
     router-script-version router-script-version;
}
```

## Hierarchy Level

```
[edit slot number network-publisher routers router]
```

## Release Information

Statement introduced in SRC Release 3.0.0

## Description

Configure connections between a particular router running Junos OS and the network publisher. The network publisher connects to the Junos XML management protocol server on a router running Junos OS. Properties defined at this hierarchy level take precedence over those defined at the `slot 0 network-publisher routers` hierarchy level.

## Options

`router-name` *`router-name`*— Name of a specific router running Junos OS.

**Value**—Text

`address` *`address`*— IP address of a router running Junos OS.

**Value**—IP address
**Editing Level**—Basic

`router-release-number` *`router-release-number`*—(Optional) Release number of the Junos OS running on the routers.

**Value**—Text
**Default**— No value
**Editing Level**—Basic

`router-script-version` *`router-script-version`*—(Optional) Version of Junos XML management protocol running on the routers running Junos OS.

**Value**—Text
**Default**—1.0
**Editing Level**—Expert

### Required Privilege Level

No specific privilege required.

### Required Editing Level

Basic

# slot *number* network-publisher routers router *router-name* authentication

## Syntax

```
slot number network-publisher routers router router-name authentication {
     login-name login-name;
     credentials credentials;
     protocol (telnet | ssh);
}
```

## Hierarchy Level

```
[edit slot number network-publisher routers router router-name authentication]
```

## Release Information

Statement introduced in SRC Release 3.0.0

## Description

Configure authentication properties for the routers running Junos OS to which the network publisher connects. Properties defined at this hierarchy level are applied to all the configured routers running Junos OS unless you specify different properties for a particular device.

## Options

`login-name` *`login-name`*—(Optional) Username to log in to the Junos OS.

**Value**—Text
**Default**— No value
**Editing Level**—Basic

`credentials` *`credentials`*—(Optional) Password to log in to the Junos OS.

**Value**— *password*
**Default**— No value
**Editing Level**—Basic

`protocol (telnet | ssh)`—(Optional) Authentication protocol that network publisher uses to access a router running Junos OS.

**Value**

- `telnet`— Use Junos XML management protocol over a Telnet connection.
- `ssh`— (Recommended) Use Junos XML management protocol over an SSH connection.

**Default**—ssh
**Editing Level**—Basic

## Required Privilege Level

No specific privilege required.

## Required Editing Level

Basic

# slot *number* network-publisher routers router *router-name* test-mode

## Syntax

```
slot number network-publisher routers router router-name test-mode {
     enable-file-input;
     enable-file-output;
     input-location input-location;
     output-location output-location;
}
```

## Hierarchy Level

```
[edit slot number network-publisher routers router router-name test-mode]
```

## Release Information

Statement introduced in SRC Release 3.0.0

## Description

Configure information to test the network publisher.

Use an input file to test a configuration before routes to the NIC are available or before VPNs are configured. You can also use an input file to set up a test configuration for demonstration purposes.

Use an output file to review the information that the network publisher has gathered.

## Options

`enable-file-input`—(Optional) Configure the network publisher to use data in a file, rather than in the directory, when you run the network publisher.

**Editing Level**—Basic

`enable-file-output`—(Optional) Configure the network publisher to collect data from routers running Junos OS and store that information in a file, rather than in the directory.

**Editing Level**—Basic

`input-location` *`input-location`*—(Optional) Location in the directory where input files are located. In most cases, you do not need to change the value of this option.

**Note:** Input filenames should be in the format router_name_1.xml. where router_name is the hostname of the router running Junos OS.

**Value**—Text
**Default**—sample/junos/rt
**Editing Level**—Advanced

`output-location` *`output-location`*—(Optional) Location in the directory where output files are located. In most cases, you do not need to change the value of this option.

**Note:** Output filenames should be in the format router_name_1.xml where router_name is the hostname of the router running Junos OS.

**Value**—Text
**Default**—var/junos/rt
**Editing Level**—Advanced

## Required Privilege Level

No specific privilege required.

## Required Editing Level

Basic

# slot *number* network-publisher routers test-mode

## Syntax

```
slot number network-publisher routers test-mode {
     enable-file-input;
     enable-file-output;
     input-location input-location;
     output-location output-location;
}
```

## Hierarchy Level

```
[edit slot number network-publisher routers test-mode]
```

## Release Information

Statement introduced in SRC Release 3.0.0

## Description

Configure information to test the network publisher.

Use an input file to test a configuration before routes to the NIC are available or before VPNs are configured. You can also use an input file to set up a test configuration for demonstration purposes.

Use an output file to review the information that the network publisher has gathered.

## Options

`enable-file-input`—(Optional) Configure the network publisher to use data in a file, rather than in the directory, when you run the network publisher.

**Editing Level**—Basic

`enable-file-output`—(Optional) Configure the network publisher to collect data from routers running Junos OS and store that information in a file, rather than in the directory.

**Editing Level**—Basic

`input-location` *`input-location`*—(Optional) Location in the directory where input files are located. In most cases, you do not need to change the value of this option.

**Note:** Input filenames should be in the format router_name_1.xml. where router_name is the hostname of the router running Junos OS.

**Value**—Text
**Default**—sample/junos/rt

**Editing Level**—Advanced

`output-location` *`output-location`*—(Optional) Location in the directory where output files are located. In most cases, you do not need to change the value of this option.

**Note:** Output filenames should be in the format router_name_1.xml where router_name is the hostname of the router running Junos OS.

**Value**—Text
**Default**—var/junos/rt
**Editing Level**—Advanced

## Required Privilege Level

No specific privilege required.

## Required Editing Level

Basic

# slot *number* network-publisher select

## Syntax

```
slot number network-publisher select {
     route-table-filter route-table-filter;
     route-entry-filter route-entry-filter;
}
```

## Hierarchy Level

```
[edit slot number network-publisher select]
```

## Release Information

Statement introduced in SRC Release 3.0.0

## Description

Specify the routing tables and the entries in the routing tables from which the network publisher collects routing information.

The network publisher can collect information from Junos IPv4 and IPv6 routing tables. By default, it collects information from all IPv4 routing tables, including tables for VPNs, and entries for all protocols. Based on your network configuration, consider which protocols to exclude from the configuration for network publisher.

The network publisher saves the information collected in the Juniper Networks database.

## Options

`route-table-filter` *`route-table-filter`*—(Optional) Routing table from which the network publisher collects information.

**Value**— Routing table name
**Editing Level**—Advanced

`route-entry-filter` *`route-entry-filter`*—(Optional) Routing table entry from which the network publisher collects information.

**Value**— Name of routing table entry
**Editing Level**—Advanced

## Required Privilege Level

No specific privilege required.

## Required Editing Level

Basic

# slot *number* nic

## Syntax

```
slot number nic {
     base-dn base-dn;
     java-runtime-environment java-runtime-environment;
     java-heap-size java-heap-size;
     java-new-size java-new-size;
     java-garbage-collection-options java-garbage-collection-options;
     java-64bit;
     snmp-agent;
     hostname hostname;
     scenario-name scenario-name;
     runtime-group runtime-group;
}
```

## Hierarchy Level

`[edit slot number nic]`

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure NIC local operating properties.

## Options

`base-dn base-dn`— Distinguished name (DN) of the root directory for the NIC.

**Value**— DN
**Default**— o=umc
**Editing Level**—Basic

`java-runtime-environment java-runtime-environment`— Path to the Java runtime environment (JRE).

**Value**— Directory path
**Default**— ../jre/bin/java
**Editing Level**—Expert

`java-heap-size java-heap-size`— Maximum Java heap (memory) size available to the JRE. The value is inserted when the JRE starts. See documentation for the Java runtime environment for valid values.

**Value**— Number of megabytes in the format ###m

**Default**— 128m
**Editing Level**—Advanced

`java-new-size` *`java-new-size`*— Maximum Java new generation heap (memory) size available to the JRE when the NIC starts.

**Value**— Integer in the range 0–<Java heap size>. Specify the value in bytes or add m for megabytes, k for kilobytes, or g for gigabytes. For example, 64m. See the documentation for the JRE for valid values.
**Default**— 24m
**Editing Level**—Advanced

`java-garbage-collection-options` *`java-garbage-collection-options`*— Garbage collection functionality of the Java Virtual Machine.

**Value**— Options defined by the JVM
**Default**— -Xbatch -XX:CMSInitiatingOccupancyFraction=80 -XX:+UseParNewGC -XX:SurvivorRatio=1 -XX:InitialTenuringThreshold=8 -XX:MaxTenuringThreshold=10 -XX:+UseCMSCompactAtFullCollection -XX:CMSFullGCsBeforeCompaction=0 -XX:+CMSClassUnloadingEnabled -XX:+CMSParallelRemarkEnabled -XX:+UseConcMarkSweepGC
**Editing Level**—Advanced

`java-64bit`—(Optional) Start the java virtual machine in 64 bit mode

**Editing Level**—Basic

`snmp-agent`—(Optional) Enable the NIC to communicate with the SNMP agent. By using SNMP, you can view SNMP counters with an SNMP browser.

**Editing Level**—Basic

`hostname` *`hostname`*— Name of the NIC host. In most cases, use the name DemoHost because this is the hostname used in most NIC configuration scenarios. Refer to the documentation to verify that the NIC configuration scenario you use includes DemoHost as the NIC host.

**Value**— NIC hostname
**Default**— DemoHost for most configuration scenarios
**Editing Level**—Basic

`scenario-name` *`scenario-name`*

— Name of the NIC scenario under the static configuration namespace.

**Value**— NIC hostname
**Default**— DemoHost for most configuration scenarios
**Editing Level**—Basic

`runtime-group` *`runtime-group`*—(Optional) Group to which this NIC host belongs for use with NIC replication. NIC hosts that run in the same system must specify the same runtime group. If you do not specify a value for the group, the NIC host creates the configuration.

**Value**— Group name
**Default**— No value
**Editing Level**—Basic

## Required Privilege Level

No specific privilege required.

## Required Editing Level

Basic

# slot *number* nic initial

### Syntax

```
slot number nic initial {
     static-dn static-dn;
     dynamic-dn dynamic-dn;
}
```

### Hierarchy Level

```
[edit slot number nic initial]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure initial properties for the NIC.

### Options

`static-dn` *`static-dn`*—(Optional) Location of administrator-defined configuration data in the directory.

**Value**—Text
**Default**—
l=NIC,ou=staticConfiguration,ou=Configuration,o=Management,o=umc
**Editing Level**—Expert

`dynamic-dn` *`dynamic-dn`*—(Optional) Location of programmatically defined configuration data in the directory.

**Value**— DN
**Default**— ou=dynamicConfiguration, ou=Configuration, o=Management, <base>
**Editing Level**—Expert

### Required Privilege Level

No specific privilege required.

### Required Editing Level

Basic

# slot *number* nic initial directory-connection

## Syntax

```
slot number nic initial directory-connection {
     url url;
     backup-urls [backup-urls...];
     principal principal;
     credentials credentials;
     protocol (ldaps);
     timeout timeout;
     check-interval check-interval;
     blacklist;
     snmp-agent;
}
```

## Hierarchy Level

```
[edit slot number nic initial directory-connection]
```

## Description

Configure properties for the directory connection.

## Options

`url` *`url`*—(Optional) URL that identifies the location of the primary directory server.

**Value**— URL
**Default**—ldap://127.0.0.1:389
**Editing Level**—Basic

`backup-urls [`*`backup-urls...`*`]`—(Optional) URLs that identify the locations of backup directory servers. Backup servers are used if the primary directory server is not accessible.

**Value**— List of URLs
**Editing Level**—Basic

`principal` *`principal`*— DN that the SRC component uses for authentication to access the directory.

**Value**— DN.

When you specify the DN, you can use <base> to indicate the base DN.

**Editing Level**—Basic

`credentials` *`credentials`*— Password with which the SRC component accesses the directory.

**Value**— Password
**Editing Level**—Basic

`protocol (ldaps)`—(Optional) Security protocol used to connect to the directory. If you do not configure a security protocol, plain socket is used.

**Value**

- `ldaps`— LDAPS which uses SSL.

**Editing Level**—Expert

`timeout` *`timeout`*—(Optional) Maximum amount of time during which the directory must respond to a connection request.

**Value**—Integer in the range 1–2147483647 s
**Default**—10
**Editing Level**—Expert

`check-interval` *`check-interval`*—(Optional) Time interval at which the directory monitoring system verifies its connection to the directory. If the directory connection fails after this interval, the directory monitoring system initiates a connection to another directory.

**Value**—Integer in the range 15–2147483647 s
**Default**—60
**Editing Level**—Expert

`blacklist`—(Optional) Specifies whether the directory monitoring system prevents connection to a directory if the directory fails to respond during 10 polling intervals.

**Default**—false
**Editing Level**—Basic

`snmp-agent`—(Optional) Specifies whether the SRC SNMP agent exports MIBs for this directory connection.

**Default**—false
**Editing Level**—Expert

## Required Privilege Level

No specific privilege required.

## Required Editing Level

Basic

# slot *number* nic initial directory-eventing

## Syntax

```
slot number nic initial directory-eventing {
     eventing;
     signature-dn signature-dn;
     polling-interval polling-interval;
     event-base-dn event-base-dn;
     dispatcher-pool-size dispatcher-pool-size;
}
```

## Hierarchy Level

```
[edit slot number nic initial directory-eventing]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Change configuration for directory eventing properties. In most cases, you can use the default configuration for these properties.

## Options

`eventing`—(Optional) Enable an SRC component to poll the directory for changes.

**Default**—true
**Editing Level**—Normal

`signature-dn` *`signature-dn`*—(Optional) DN of the directory entry that specifies the usedDirectory attribute for the SRC CLI. The usedDirectory attribute identifies the vendor of the directory server.

**Value**— DN
**Default**—o=umc
**Editing Level**—Expert

`polling-interval` *`polling-interval`*—(Optional) Interval at which an SRC component polls the directory to check for directory changes.

**Value**—Integer in the range 15–2147483647 s
**Default**—30
**Editing Level**—Normal

`event-base-dn` *`event-base-dn`*—(Optional) DN of an entry superior to the data associated with an SRC component in the directory.

If you are storing non-SRC data in the directory, and that data changes frequently whereas the SRC data does not, you may need to adjust the default value to improve performance. For optimal performance, set the value to the DN of an entry superior to both the SRC data and the changing non-SRC data.

**Value**— DN
**Default**—o=UMC
**Editing Level**—Expert

`dispatcher-pool-size` *`dispatcher-pool-size`*—(Optional) Number of directory change notifications that can be sent simultaneously to the SRC component.

**Value**—Integer in the range 0–2147483647
**Default**—1
**Editing Level**—Expert

## Required Privilege Level

No specific privilege required.

## Required Editing Level

Basic

# slot *number* nic java-orb object-adapter

## Syntax

```
slot number nic java-orb object-adapter {
     address address;
}
```

## Hierarchy Level

```
[edit slot number nic java-orb object-adapter]
```

## Release Information

Statement introduced in SRC-3.2.0 Release

## Description

Object adapter internet address configuration

## Options

`address` *`address`*—(Optional) Object Adapter Internet Address: IP address on multi-homed host.

**Value**— IP address
**Default**— No value
**Editing Level**—Basic

## Required Privilege Level

No specific privilege required.

## Required Editing Level

Basic

# request network-publisher execute

## Syntax

```
request network-publisher execute
```

## Release Information

Command introduced in SRC Release 3.0.0

## Description

Run the network publisher. The network publisher is a NIC component that connects to routers running Junos OS and collects information, such as information about system interfaces and VPNs, from IPv4 and IPv6 routing tables. After collecting the information, the network publisher stores this information in the Juniper Networks database for access by the NIC.

Before you run this command, make sure that the network publisher is configured and that the NIC is enabled.

## Required Privilege Level

maintenance

# request nic clear scenario-data

## Syntax

```
request nic clear scenario-data
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Remove data stored for NIC scenarios. Run this command when you switch from one NIC configuration scenario to another.

Before you run this command, disable NIC by using the `disable component nic` command.

## Required Privilege Level

maintenance

# request nic restart agent

## Syntax

```
request nic restart agent <name name>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Restart NIC agents. If you do not specify an agent name, the software restarts all NIC agents.

You can restart a NIC agent to have the agent read all data in the directory again. Restart a NIC agent if the agent is not synchronized with the directory, or if you switch from one directory to another.

## Options

`name` *`name`*—(Optional) Name of the NIC agent to restart.

**Value**— Agent name. The agents included with the SRC software are:

- AcctIdIp
- DnVr
- Enterprise
- IpAcctId
- IpLoginName
- IpVr
- LoginNameVr
- PoolVr
- UserNameVr
- VrSaeId

**Default**— No value

## Required Privilege Level

maintenance

# request nic restart resolver

## Syntax

```
request nic restart resolver <name name>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Restart NIC resolvers. If you do not specify a resolver name, the software restarts all resolvers.

In rare instances, such as when you are troubleshooting a NIC configuration, you may want to restart a NIC resolver.

## Options

`name` *`name`*—(Optional) Name of the NIC resolver to restart.

**Value**— Resolver name
**Default**— No value

## Required Privilege Level

maintenance

# show nic data

## Syntax

```
show nic data <maximum-results maximum-results>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display data that NIC uses during resolutions.

## Options

`maximum-results` *`maximum-results`*—(Optional) Number of results to be displayed.

**Value**—Integer in the range 1–2147483647
**Default**—25

## Required Privilege Level

view

# show nic data agent

### Syntax

```
show nic data agent <name name>
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Display the data that NIC agents store.

### Options

`name` *`name`*—(Optional) Name of a NIC agent.

**Value**— Agent name. The agents included with the SRC software are:

- AcctIdIp
- DnVr
- Enterprise
- IpAcctId
- IpLoginName
- IpVr
- LoginNameVr
- PoolVr
- UserNameVr
- VrSaeId

**Default**— No value

### Required Privilege Level

view

# show nic data resolver

## Syntax

```
show nic data resolver <name name>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display data that NIC resolvers store.

## Options

`name` *`name`*—(Optional) Name of a NIC resolver.

**Value**— Resolver name
**Default**— No value

## Required Privilege Level

view

# show nic statistics

## Syntax

```
show nic statistics
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display statistics for NIC.

## Required Privilege Level

view

# show nic statistics agent

## Syntax

```
show nic statistics agent <name name>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display statistics for NIC agents. If you do not specify an agent name, the command displays statistics for all NIC agents.

## Options

`name` *`name`*—(Optional) Name of a NIC agent.

**Value**— Agent name. The agents included with the SRC software are:

- AcctIdIp
- DnVr
- Enterprise
- IpAcctId
- IpLoginName
- IpVr
- LoginNameVr
- PoolVr
- UserNameVr
- VrSaeId

**Default**— No value

## Required Privilege Level

view

# show nic statistics host

## Syntax

```
show nic statistics host
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display statistics for the NIC host.

## Required Privilege Level

view

# show nic statistics process

## Syntax

```
show nic statistics process
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display process information for the NIC.

## Required Privilege Level

view

# show nic statistics resolver

## Syntax

```
show nic statistics resolver <name name>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display statistics for NIC resolvers. If you do not specify a resolver name, the software displays statistics for all resolvers.

## Options

`name` *`name`*—(Optional) Name of a NIC resolver.

**Value**— Resolver name
**Default**— No value

## Required Privilege Level

view

# test nic resolve

## Syntax

`test nic resolve locator` *`locator`* `<intermediate> key` *`key`* `<constraints` *`constraints`*`>`

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Issue a resolution request to the NIC host to test NIC resolution for a specified key.

## Options

`locator` *`locator`*— Name of a NIC locator. A NIC locator can resolve the value of one or more NIC keys. Each NIC configuration scenario provides configuration for an associated NIC locator.

**Value**— Name of a NIC locator

`intermediate`—(Optional) Flag to display the intermediate results for NIC resolution. Setting this flag when you issue the resolution request to the NIC host will display the intermediate results for the NIC resolution.

**Value**— Either true or false
**Default**— false

`key` *`key`*— The NIC key to resolve.

**Value**— NIC key in the form `NIC data type`: `key string`; for example: Ip:10.10.10.10.

`constraints` *`constraints`*—(Optional) List of values for NIC constraints. Constraints are NIC data types that a resolver uses when it executes a role (also referred to as a transition) in the resolution process. A role resolves a NIC key to a NIC value.

**Value**— Constraints in the form: [*constraint* (,*constraint*)*]. For each constraint, use the format: `NIC data type`: `key string`. For example, [AnyString(conn):false, domain:virneo]

## Required Privilege Level

maintenance

# Subscriber Information Collector (SIC)

The following table summarizes the SRC command-line interface (SRC CLI) for the Subscriber Information Collector (SIC). Configuration statements and operational commands are listed in alphabetical order.

| Subscriber Information Collector (SIC) |
|---|
| Configuration Statements |
| shared sic group |
| shared sic group identifier accounting-method |
| shared sic group identifier accounting-method accounting-method-name proxy radius |
| shared sic group identifier device-template |
| shared sic group identifier device-template id capabilities capability |
| shared sic group identifier device-template id global-template |
| shared sic group identifier device-template id global-template mode |
| shared sic group identifier device-template id global-template mode (authentication \| accounting \| abort-session) attributes |
| shared sic group identifier device-template id global-template mode (authentication \| accounting \| abort-session) attributes attribute |
| shared sic group identifier device-template id global-template mode (authentication \| accounting \| abort-session) attributes attribute id default |
| shared sic group identifier device-template id global-template mode (authentication \| accounting \| abort-session) attributes attribute id normal |
| shared sic group identifier device-template id global-template mode (authentication \| accounting \| abort-session) attributes attribute id override |
| shared sic group identifier device-template id global-template mode (authentication \| accounting \| abort-session) attributes attribute id parameterized |
| shared sic group identifier device-template id global-template mode (authentication \| accounting \| abort-session) attributes attribute id required |
| shared sic group identifier device-template id global-template mode (authentication \| accounting \| abort-session) variable |
| shared sic group identifier device-template id service-template |
| shared sic group identifier device-template id service-template name mode |
| shared sic group identifier device-template id service-template name mode (activation \| deactivation \| initial-authorization \| service-correlation-id \| service-profile-download) attributes |
| shared sic group identifier device-template id service-template name mode (activation \| deactivation \| initial-authorization \| service-correlation-id \| service-profile-download) attributes attribute |

| |
|---|
| shared sic group identifier device-template id service-template name mode (activation \| deactivation \| initial-authorization \| service-correlation-id \| service-profile-download) attributes attribute id default |
| shared sic group identifier device-template id service-template name mode (activation \| deactivation \| initial-authorization \| service-correlation-id \| service-profile-download) attributes attribute id normal |
| shared sic group identifier device-template id service-template name mode (activation \| deactivation \| initial-authorization \| service-correlation-id \| service-profile-download) attributes attribute id override |
| shared sic group identifier device-template id service-template name mode (activation \| deactivation \| initial-authorization \| service-correlation-id \| service-profile-download) attributes attribute id parameterized |
| shared sic group identifier device-template id service-template name mode (activation \| deactivation \| initial-authorization \| service-correlation-id \| service-profile-download) attributes attribute id required |
| shared sic group identifier device-template id service-template name mode (activation \| deactivation \| initial-authorization \| service-correlation-id \| service-profile-download) attributes tagged-group |
| shared sic group identifier device-template id service-template name mode (activation \| deactivation \| initial-authorization \| service-correlation-id \| service-profile-download) attributes tagged-group attribute |
| shared sic group identifier device-template id service-template name mode (activation \| deactivation \| initial-authorization \| service-correlation-id \| service-profile-download) attributes tagged-group attribute id default |
| shared sic group identifier device-template id service-template name mode (activation \| deactivation \| initial-authorization \| service-correlation-id \| service-profile-download) attributes tagged-group attribute id normal |
| shared sic group identifier device-template id service-template name mode (activation \| deactivation \| initial-authorization \| service-correlation-id \| service-profile-download) attributes tagged-group attribute id override |
| shared sic group identifier device-template id service-template name mode (activation \| deactivation \| initial-authorization \| service-correlation-id \| service-profile-download) attributes tagged-group attribute id parameterized |
| shared sic group identifier device-template id service-template name mode (activation \| deactivation \| initial-authorization \| service-correlation-id \| service-profile-download) attributes tagged-group attribute id required |
| shared sic group identifier device-template id service-template name mode (activation \| deactivation \| initial-authorization \| service-correlation-id \| service-profile-download) variable |
| shared sic group identifier diameter network-element |
| shared sic group identifier diameter network-element id peer |
| shared sic group identifier diameter network-element id peer name |
| shared sic group identifier diameter network-element id peer name addresses address |
| shared sic group identifier dictionary |
| shared sic group identifier dictionary id attribute |

| |
|---|
| shared sic group identifier dictionary id attribute id radius |
| shared sic group identifier dictionary id attribute id radius constant |
| shared sic group identifier editing |
| shared sic group identifier editing editing-rule default |
| shared sic group identifier editing editing-rule source literal |
| shared sic group identifier editing editing-rule source literal identifier condition realm |
| shared sic group identifier editing editing-rule source literal identifier condition realm does-not-equal |
| shared sic group identifier editing editing-rule source literal identifier condition realm equals |
| shared sic group identifier editing editing-rule source literal identifier condition realm has-prefix |
| shared sic group identifier editing editing-rule source literal identifier condition realm has-suffix |
| shared sic group identifier editing editing-rule source literal identifier condition realm range |
| shared sic group identifier editing editing-rule source literal identifier condition request |
| shared sic group identifier editing editing-rule source literal identifier condition request attribute |
| shared sic group identifier editing editing-rule source literal identifier condition request attribute attribute-name does-not-equal |
| shared sic group identifier editing editing-rule source literal identifier condition request attribute attribute-name equals |
| shared sic group identifier editing editing-rule source literal identifier condition request attribute attribute-name has-prefix |
| shared sic group identifier editing editing-rule source literal identifier condition request attribute attribute-name has-suffix |
| shared sic group identifier editing editing-rule source literal identifier condition request attribute attribute-name range |
| shared sic group identifier editing editing-rule source literal identifier condition user-identity |
| shared sic group identifier editing editing-rule source literal identifier condition user-identity does-not-equal |
| shared sic group identifier editing editing-rule source literal identifier condition user-identity equals |
| shared sic group identifier editing editing-rule source literal identifier condition user-identity has-prefix |
| shared sic group identifier editing editing-rule source literal identifier condition user-identity has-suffix |
| shared sic group identifier editing editing-rule source literal identifier condition user-identity range |
| shared sic group identifier editing editing-rule source request-attribute |
| shared sic group identifier editing editing-rule source request-attribute identifier condition realm |

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| shared sic group identifier editing editing-rule source request-attribute identifier condition realm does-not-equal |
| shared sic group identifier editing editing-rule source request-attribute identifier condition realm equals |
| shared sic group identifier editing editing-rule source request-attribute identifier condition realm has-prefix |
| shared sic group identifier editing editing-rule source request-attribute identifier condition realm has-suffix |
| shared sic group identifier editing editing-rule source request-attribute identifier condition realm range |
| shared sic group identifier editing editing-rule source request-attribute identifier condition request |
| shared sic group identifier editing editing-rule source request-attribute identifier condition request attribute |
| shared sic group identifier editing editing-rule source request-attribute identifier condition request attribute attribute-name does-not-equal |
| shared sic group identifier editing editing-rule source request-attribute identifier condition request attribute attribute-name equals |
| shared sic group identifier editing editing-rule source request-attribute identifier condition request attribute attribute-name has-prefix |
| shared sic group identifier editing editing-rule source request-attribute identifier condition request attribute attribute-name has-suffix |
| shared sic group identifier editing editing-rule source request-attribute identifier condition request attribute attribute-name range |
| shared sic group identifier editing editing-rule source request-attribute identifier condition user-identity |
| shared sic group identifier editing editing-rule source request-attribute identifier condition user-identity does-not-equal |
| shared sic group identifier editing editing-rule source request-attribute identifier condition user-identity equals |
| shared sic group identifier editing editing-rule source request-attribute identifier condition user-identity has-prefix |
| shared sic group identifier editing editing-rule source request-attribute identifier condition user-identity has-suffix |
| shared sic group identifier editing editing-rule source request-attribute identifier condition user-identity range |
| shared sic group identifier editing editing-rule source variable |
| shared sic group identifier editing editing-rule source variable (user-name \| realm) condition realm |
| shared sic group identifier editing editing-rule source variable (user-name \| realm) condition realm does-not-equal |

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|---|
| shared sic group identifier editing editing-rule source variable (user-name \| realm) condition realm equals |
| shared sic group identifier editing editing-rule source variable (user-name \| realm) condition realm has-prefix |
| shared sic group identifier editing editing-rule source variable (user-name \| realm) condition realm has-suffix |
| shared sic group identifier editing editing-rule source variable (user-name \| realm) condition realm range |
| shared sic group identifier editing editing-rule source variable (user-name \| realm) condition request |
| shared sic group identifier editing editing-rule source variable (user-name \| realm) condition request attribute |
| shared sic group identifier editing editing-rule source variable (user-name \| realm) condition request attribute attribute-name does-not-equal |
| shared sic group identifier editing editing-rule source variable (user-name \| realm) condition request attribute attribute-name equals |
| shared sic group identifier editing editing-rule source variable (user-name \| realm) condition request attribute attribute-name has-prefix |
| shared sic group identifier editing editing-rule source variable (user-name \| realm) condition request attribute attribute-name has-suffix |
| shared sic group identifier editing editing-rule source variable (user-name \| realm) condition request attribute attribute-name range |
| shared sic group identifier editing editing-rule source variable (user-name \| realm) condition user-identity |
| shared sic group identifier editing editing-rule source variable (user-name \| realm) condition user-identity does-not-equal |
| shared sic group identifier editing editing-rule source variable (user-name \| realm) condition user-identity equals |
| shared sic group identifier editing editing-rule source variable (user-name \| realm) condition user-identity has-prefix |
| shared sic group identifier editing editing-rule source variable (user-name \| realm) condition user-identity has-suffix |
| shared sic group identifier editing editing-rule source variable (user-name \| realm) condition user-identity range |
| shared sic group identifier editing editing-rule target |
| shared sic group identifier local-realm |
| shared sic group identifier model |
| shared sic group identifier radius accounting-listener limit |
| shared sic group identifier radius accounting-listener transport |

| |
|---|
| shared sic group identifier radius accounting-listener transport id |
| shared sic group identifier radius authentication-listener limit |
| shared sic group identifier radius authentication-listener transport |
| shared sic group identifier radius authentication-listener transport id |
| shared sic group identifier radius network-element |
| shared sic group identifier radius network-element id downstream (authentication \| accounting) accounting-target |
| shared sic group identifier radius network-element id downstream (authentication \| accounting) accounting-target name |
| shared sic group identifier radius network-element id downstream (authentication \| accounting) authentication-target |
| shared sic group identifier radius network-element id downstream (authentication \| accounting) authentication-target name |
| shared sic group identifier radius network-element id downstream (authentication \| accounting) failover-policy |
| shared sic group identifier radius network-element id downstream (authentication \| accounting) failover-policy fast-fail |
| shared sic group identifier radius network-element id downstream (authentication \| accounting) failover-policy retry |
| shared sic group identifier radius network-element id downstream failover-mode |
| shared sic group identifier radius network-element id downstream model |
| shared sic group identifier radius network-element id proxy |
| shared sic group identifier radius network-element id proxy realm |
| shared sic group identifier radius network-element id upstream |
| shared sic group identifier radius network-element id upstream dynamic-authorization-target |
| shared sic group identifier radius network-element id upstream dynamic-authorization-target failover-policy |
| shared sic group identifier radius network-element id upstream dynamic-authorization-target failover-policy fast-fail |
| shared sic group identifier radius network-element id upstream dynamic-authorization-target failover-policy retry |
| shared sic group identifier radius network-element id upstream dynamic-authorization-target target |
| shared sic group identifier radius network-element id upstream dynamic-authorization-target target name |
| shared sic group identifier radius network-element id upstream radius-client |

| |
|---|
| shared sic group identifier radius outbound-transport |
| shared sic group identifier radius outbound-transport transport-name |
| shared sic group identifier server |
| shared sic group identifier server identifier accounting-route |
| shared sic group identifier server identifier accounting-route id condition realm |
| shared sic group identifier server identifier accounting-route id condition realm does-not-equal |
| shared sic group identifier server identifier accounting-route id condition realm equals |
| shared sic group identifier server identifier accounting-route id condition realm has-prefix |
| shared sic group identifier server identifier accounting-route id condition realm has-suffix |
| shared sic group identifier server identifier accounting-route id condition realm range |
| shared sic group identifier server identifier accounting-route id condition request |
| shared sic group identifier server identifier accounting-route id condition request attribute |
| shared sic group identifier server identifier accounting-route id condition request attribute attribute-name does-not-equal |
| shared sic group identifier server identifier accounting-route id condition request attribute attribute-name equals |
| shared sic group identifier server identifier accounting-route id condition request attribute attribute-name has-prefix |
| shared sic group identifier server identifier accounting-route id condition request attribute attribute-name has-suffix |
| shared sic group identifier server identifier accounting-route id condition request attribute attribute-name range |
| shared sic group identifier server identifier accounting-route id condition user-identity |
| shared sic group identifier server identifier accounting-route id condition user-identity does-not-equal |
| shared sic group identifier server identifier accounting-route id condition user-identity equals |
| shared sic group identifier server identifier accounting-route id condition user-identity has-prefix |
| shared sic group identifier server identifier accounting-route id condition user-identity has-suffix |
| shared sic group identifier server identifier accounting-route id condition user-identity range |
| shared sic group identifier server identifier accounting-route id editing |
| shared sic group identifier server identifier accounting-route id target |
| shared sic group identifier server identifier authentication-route |
| shared sic group identifier server identifier authentication-route id condition realm |
| shared sic group identifier server identifier authentication-route id condition realm does-not-equal |

| |
|---|
| shared sic group identifier server identifier authentication-route id condition realm equals |
| shared sic group identifier server identifier authentication-route id condition realm has-prefix |
| shared sic group identifier server identifier authentication-route id condition realm has-suffix |
| shared sic group identifier server identifier authentication-route id condition realm range |
| shared sic group identifier server identifier authentication-route id condition request |
| shared sic group identifier server identifier authentication-route id condition request attribute |
| shared sic group identifier server identifier authentication-route id condition request attribute attribute-name does-not-equal |
| shared sic group identifier server identifier authentication-route id condition request attribute attribute-name equals |
| shared sic group identifier server identifier authentication-route id condition request attribute attribute-name has-prefix |
| shared sic group identifier server identifier authentication-route id condition request attribute attribute-name has-suffix |
| shared sic group identifier server identifier authentication-route id condition request attribute attribute-name range |
| shared sic group identifier server identifier authentication-route id condition user-identity |
| shared sic group identifier server identifier authentication-route id condition user-identity does-not-equal |
| shared sic group identifier server identifier authentication-route id condition user-identity equals |
| shared sic group identifier server identifier authentication-route id condition user-identity has-prefix |
| shared sic group identifier server identifier authentication-route id condition user-identity has-suffix |
| shared sic group identifier server identifier authentication-route id condition user-identity range |
| shared sic group identifier server identifier authentication-route id target |
| shared sic group identifier server identifier diameter identity |
| shared sic group identifier server identifier diameter transport |
| shared sic group identifier server identifier logger |
| shared sic group identifier server identifier logger id file |
| shared sic group identifier server identifier logger id group |
| shared sic group identifier server identifier outbound-transport |
| shared sic group identifier server identifier outbound-transport transport-name |
| shared sic group identifier server identifier transports |
| shared sic group identifier server identifier transports transport-name |
| shared sic group identifier snmp event |

| |
|---|
| shared sic group identifier transaction-manager |
| slot number sic initial directory-connection |
| slot number sic server |
| Operational Commands |
| show sic statistics diameter host |
| show sic statistics diameter peer |
| show sic statistics radius client accounting |
| show sic statistics radius client authentication |
| show sic statistics radius host accounting |
| show sic statistics radius host authentication |
| show sic statistics radius target accounting |
| show sic statistics radius target authentication |

# shared sic group

### Syntax

```
shared sic group identifier ...
```

### Hierarchy Level

```
[edit shared sic group]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the shared SIC group properties. The SIC shared group configuration contains the configuration used by a group of servers. Each SIC server must belong to a group. The SIC group configuration contains the configuration properties for accounting methods, dictionaries, editing rules, and RADIUS options for the group. The identifier associated with the group is the name of the shared configuration. If you want a specific server to use a shared group configuration, you create a correlation between the server instance and the shared group configuration. Specify the name of the server you want to use the shared group configuration by using the "shared sic group identifier server" statement. The identifier associated with the server must match the name that you specified with the "slot number sic server" statement.

In addition, certain configuration options applicable to the individual server instances belonging to the group are also stored in the shared group configuration under the individual server name. These include the accounting route rules, the event logging configuration, and the inbound and outbound RADIUS transport configuration specific to the server instance.

### Options

`identifier` *`identifier`*— Name of a shared SIC configuration.

**Value**— Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* accounting-method

## Syntax

```
shared sic group identifier accounting-method accounting-method-name ...
```

## Hierarchy Level

```
[edit shared sic group identifier accounting-method]
```

## Release Information

Statement introduced in SRC Release 4.0.0

## Description

Configure the type of accounting method used by the SIC group. An accounting method is an accounting target that is used for routing accounting requests. The accounting method available for the SIC include storing accounting events in proxy RADIUS, which forwards accounting events to a downstream authentication, authorization, and accounting (AAA) server. The proxy function must be assigned to the downstream network element.

## Options

`accounting-method-name` *`accounting-method-name`*— Name of the accounting method. An accounting method is a named accounting target that can then be assigned to an accounting route.

**Value**—Text

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* accounting-method *accounting-method-name* proxy radius

## Syntax

```
shared sic group identifier accounting-method accounting-method-name proxy radius {
     network-element network-element;
}
```

## Hierarchy Level

```
[edit shared sic group identifier accounting-method accounting-method-
name proxy radius]
```

## Release Information

Statement introduced in SRC Release 4.0.0

## Description

Use a downstream RADIUS network element (AAA server) as the accounting target. The network element must be configured as a proxy server.

## Options

`network-element` *`network-element`*— Name of a configured downstream RADIUS network element to which you want to forward (proxy) accounting requests. The network element must be configured as a RADIUS proxy server.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* device-template

### Syntax

```
shared sic group identifier device-template id {
     vendor vendor;
     model model;
}
```

### Hierarchy Level

```
[edit shared sic group identifier device-template]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure a device template. Device templates specify the make (vendor), model, and capability of the router.

### Options

`id` *`id`*— Name of the device template.

**Value**—Text

`vendor` *`vendor`*—(Optional) Vendor (brand) name of this device.

**Value**—Text
**Editing Level**—Basic

`model` *`model`*— Model name of this device.

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* device-template *id* capabilities capability

## Syntax

```
shared sic group identifier device-template id capabilities capability (activation |
modification | bundle) {
     value;
}
```

## Hierarchy Level

```
[edit shared sic group identifier device-template id capabilities capability]
```

## Release Information

Statement introduced in SRC Release 4.2.0

## Description

Configure the service capability type supported by the template. The capability specifies activation behavior of services and how the router handles multiple requests in a single COA.

## Options

### Value

- `activation`— Capability includes service access and activation behavior
- `modification`— Capability is service modification behavior
- `bundle`— Capability allows for multiple services to be bundled in a single COA request

*`value`*— Value of the service capability

**Value**— The available values depend on the selected service capability type.

If the selected capability is "Activation," then the value can be:

- None—Indicates that the router is not capable of activating services during initial authorization or activation.
- Access-Accept—Indicates that the router supports activating services in RADIUS Access-Accept messages only.
- CoA—Indicates that the router supports activating services only in COA requests.
- Both—Enables support for both Access-Accept and COA requests.

If the selected capability is "Modification," then the value can be:

- false—The value is always false.

If the selected capability is "Bundle," it indicates whether and how the router handles multiple service activations or deactivations in a single COA request. Then the value can be:

- None—Indicates no bundling.
- Single—Indicates that the router accepts multiple requests.

**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* device-template *id* global-template

## Syntax

```
shared sic group identifier device-template id global-template {
     description description;
}
```

## Hierarchy Level

```
[edit shared sic group identifier device-template id global-template]
```

## Release Information

Statement introduced in SRC Release 4.2.0

## Description

Configure a global service template. Global templates specify rendering used as part of any mode of any service template. Global templates are used to control rendering of service-independent requests, such as Abort-Session. A global template is unique in that its modes, attributes, and variables are available to all services that you define. Global templates are therefore a mandatory part of any SIC COA configuration.

## Options

`description` *`description`*—(Optional) Description of this service.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* device-template *id* global-template mode

### Syntax

```
shared sic group identifier device-template id global-template mode (authentication |
accounting | abort-session) ...
```

### Hierarchy Level

```
[edit shared sic group identifier device-template id global-template mode]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure the modes supported in the global service template.

### Options

Name of the mode.

**Value**—

- Authentication—Authentication mode.
- Accounting—Accounting mode.
- AbortSession—AbortSession mode.

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* device-template *id* global-template mode (authentication | accounting | abort-session) attributes

## Syntax

```
shared sic group identifier device-template id global-template mode (authentication |
accounting | abort-session) attributes {
}
```

## Hierarchy Level

```
[edit shared sic group identifier device-template id global-
template mode (authentication | accounting | abort-session) attributes]
```

## Release Information

Statement introduced in SRC Release 4.2.0

## Description

Define RADIUS attributes to be generated as a result of the rendering process. All attributes create data that appears in the RADIUS attributes generated by the rendering process.

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* device-template *id* global-template mode (authentication | accounting | abort-session) attributes attribute

### Syntax

```
shared sic group identifier device-template id global-template mode (authentication |
accounting | abort-session) attributes attribute id ...
```

### Hierarchy Level

```
[edit shared sic group identifier device-template id global-
template mode (authentication | accounting | abort-session) attributes attribute]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure attributes to include in the rendered result.

### Options

`id` *`id`*— Attribute identifier.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* device-template *id* global-template mode (authentication | accounting | abort-session) attributes attribute *id* default

### Syntax

```
shared sic group identifier device-template id global-template mode (authentication |
accounting | abort-session) attributes attribute id default {
     name name;
     value value;
     copy-from copy-from;
}
```

### Hierarchy Level

```
[edit shared sic group identifier device-template id global-
template mode (authentication | accounting | abort-
session) attributes attribute id default]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure a default attribute to include in the rendered result. If the rendering process finds the attribute in the downstream AAA server response, it copies the value into the RADIUS message. Otherwise, it creates the attribute name with the specified value.

`name` *`name`*— Name of an attribute.

**Value**—Text
**Editing Level**—Basic

`value` *`value`*— Value of the attribute.

**Value**—Text
**Editing Level**—Basic

`copy-from` *`copy-from`*—(Optional) Specify the name of the attribute to copy the value from. If the copy-from option is specified, the renderer looks up the attribute specified by the copy-from option in the downstream AAA server response. In the absence of the copy-from option, the renderer looks up the attribute specified by the name option.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* device-template *id* global-template mode (authentication | accounting | abort-session) attributes attribute *id* normal

### Syntax

```
shared sic group identifier device-template id global-template mode (authentication |
accounting | abort-session) attributes attribute id normal {
     name name;
     copy-from copy-from;
}
```

### Hierarchy Level

```
[edit shared sic group identifier device-template id global-
template mode (authentication | accounting | abort-
session) attributes attribute id normal]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure a normal attribute to include in the rendered result. If the rendering process finds the attribute in the downstream AAA server response, it copies the value into the RADIUS message. Otherwise, no action occurs. The rendering process does not fail in this case.

`name` *`name`*— Name of an attribute.

**Value**—Text
**Editing Level**—Basic

`copy-from` *`copy-from`*—(Optional) Specify the name of the attribute to copy the value from. If the copy-from option is specified, the renderer looks up the attribute specified by the copy-from option in the downstream AAA server response. In the absence of the copy-from option, the renderer looks up the attribute specified by the name option.

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* device-template *id* global-template mode (authentication | accounting | abort-session) attributes attribute *id* override

### Syntax

```
shared sic group identifier device-template id global-template mode (authentication |
accounting | abort-session) attributes attribute id override {
     name name;
     value value;
}
```

### Hierarchy Level

```
[edit shared sic group identifier device-template id global-
template mode (authentication | accounting | abort-
session) attributes attribute id override]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure an override attribute to include in the rendered result. Regardless of whether or not the rendering process finds the attribute in the downstream AAA server response, it creates the attribute name with the specified value.

`name` *`name`*— Name of an attribute.

**Value**—Text
**Editing Level**—Basic

`value` *`value`*— Value of the attribute.

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* device-template *id* global-template mode (authentication | accounting | abort-session) attributes attribute *id* parameterized

### Syntax

```
shared sic group identifier device-template id global-template mode (authentication |
accounting | abort-session) attributes attribute id parameterized {
     format format;
     name name;
}
```

### Hierarchy Level

```
[edit shared sic group identifier device-template id global-
template mode (authentication | accounting | abort-
session) attributes attribute id parameterized]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure a parameterized attribute to include in the rendered result. This attribute is the most powerful and flexible type of attribute. It generates attribute values by using a format specification, which makes it the most flexible of the attributes.

`format` *`format`*— Specify the format of this attribute. The syntax of the format is $(p1) $(p2) ... $(pn) [$p(n+1)]; $(name) is used to define a parameter; you can intersperse literal text in between parameter definitions. Parameters inside [] are optional. If the optional parameter is absent, it, and any literal text included in the square brackets, is ignored. All parameters come from the SRC as input to the rendering process. If you need to use restricted characters in your strings, use the backslash convention: \$, \', \", \[, \], \(, \).

**Value**— In a form of "$(p1) $(p2) ... $(pn) [$p(n+1)]"; in case of restricted characters used, use the backslash to escape.
**Editing Level**—Basic

`name` *`name`*— Name of an attribute.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* device-template *id* global-template mode (authentication | accounting | abort-session) attributes attribute *id* required

### Syntax

```
shared sic group identifier device-template id global-template mode (authentication |
accounting | abort-session) attributes attribute id required {
     name name;
     copy-from copy-from;
}
```

### Hierarchy Level

```
[edit shared sic group identifier device-template id global-
template mode (authentication | accounting | abort-
session) attributes attribute id required]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure required attributes to include in the rendered result. If the renderer finds the attribute in the downstream AAA server response, it copies the value into the RADIUS message. Otherwise, the rendering fails.

`name` *`name`*— Name of an attribute.

**Value**—Text
**Editing Level**—Basic

`copy-from` *`copy-from`*—(Optional) Specify the name of the attribute to copy the value from. If the copy-from option is specified, the renderer looks up the attribute specified by the copy-from option in the downstream AAA server response. In the absence of the copy-from option, the renderer looks up the attribute specified by the name option.

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* device-template *id* global-template mode (authentication | accounting | abort-session) variable

### Syntax

```
shared sic group identifier device-template id global-template mode (authentication |
accounting | abort-session) variable name {
     value value;
     type (integer | string);
}
```

### Hierarchy Level

```
[edit shared sic group identifier device-template id global-
template mode (authentication | accounting | abort-session) variable]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure variables to control the rendering process behavior. Use variables to render information that is not part of RADIUS attributes. Variables provide inner logic for the rendering process. Nothing defined by variables appears in the VSAs sent to the NAS.

### Options

`name` *`name`*— Name of the variable.

**Value**—Text

`value` *`value`*— Value of the variable, usually an integer.

**Value**—Integer in the range -2147483648–2147483647
**Editing Level**—Basic

`type (integer | string)`— Data type of variable.

**Value**

- `integer`—
- `string`—

**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* device-template *id* service-template

### Syntax

```
shared sic group identifier device-template id service-template name {
     description description;
}
```

### Hierarchy Level

```
[edit shared sic group identifier device-template id service-template]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure a service template. Service templates specify any services that you want to enable for your router. What services are available vary from router to router, so it is important that you understand the properties of your router to successfully implement custom services.

### Options

`name` *`name`*— Name of the service.

**Value**—Text

`description` *`description`*—(Optional) Description of the service.

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* device-template *id* service-template *name* mode

### Syntax

```
shared sic group identifier device-template id service-template name mode (activation
| deactivation | initial-authorization | service-correlation-id | service-profile-
download) ...
```

### Hierarchy Level

```
[edit shared sic group identifier device-template id service-template name mode]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure the mode of the service template.

### Options

Name of the mode specified in service template.

**Value—**

- Activation—Service template supports activation mode. Services are activated on request from the SAE.
- Deactivation—Service template supports deactivation mode. Services are deactivated on request from the SAE.
- InitialAuthorization—Service template supports initial authorization mode for initial activation of services in the Access-Accept message.
- ServiceCorrelationId—Service template supports service-correlation-id mode. Assigns an ID number when any other mode is initiated. The SRC software uses this number for internal identification purposes.
- ServiceProfileDownload—Service template supports the service-profile-download mode. Used only for Cisco router templates.

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* device-template *id* service-template *name* mode (activation | deactivation | initial-authorization | service-correlation-id | service-profile-download) attributes

### Syntax

```
shared sic group identifier device-template id service-template name mode (activation
| deactivation | initial-authorization | service-correlation-id | service-profile-
download) attributes {
}
```

### Hierarchy Level

```
[edit shared sic group identifier device-template id service-
template name mode (activation | deactivation | initial-authorization | service-
correlation-id | service-profile-download) attributes]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure attributes in the service template to control rendering process behavior.

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* device-template *id* service-template *name* mode (activation | deactivation | initial-authorization | service-correlation-id | service-profile-download) attributes attribute

### Syntax

```
shared sic group identifier device-template id service-template name mode (activation
| deactivation | initial-authorization | service-correlation-id | service-profile-
download) attributes attribute id ...
```

### Hierarchy Level

```
[edit shared sic group identifier device-template id service-
template name mode (activation | deactivation | initial-authorization | service-
correlation-id | service-profile-download) attributes attribute]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure attributes to include in the rendered result.

### Options

`id` *`id`*— Attribute identifier.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* device-template *id* service-template *name* mode (activation | deactivation | initial-authorization | service-correlation-id | service-profile-download) attributes attribute *id* default

### Syntax

```
shared sic group identifier device-template id service-template name mode (activation
| deactivation | initial-authorization | service-correlation-id | service-profile-
download) attributes attribute id default {
     name name;
     value value;
     copy-from copy-from;
}
```

### Hierarchy Level

```
[edit shared sic group identifier device-template id service-
template name mode (activation | deactivation | initial-authorization | service-
correlation-id | service-profile-download) attributes attribute id default]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure a default attribute to include in the rendered result. If the rendering process finds the attribute in the downstream AAA server response, it copies the value into the RADIUS message. Otherwise, it creates the attribute name with the specified value.

`name` *`name`*— Name of an attribute.

**Value**—Text
**Editing Level**—Basic

`value` *`value`*— Value of the attribute.

**Value**—Text
**Editing Level**—Basic

`copy-from` *`copy-from`*—(Optional) Specify the name of the attribute to copy the value from. If the copy-from option is specified, the renderer looks up the attribute specified by the copy-from option in the downstream AAA server response. In the absence of the copy-from option, the renderer looks up the attribute specified by the name option.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* device-template *id* service-template *name* mode (activation | deactivation | initial-authorization | service-correlation-id | service-profile-download) attributes attribute *id* normal

### Syntax

```
shared sic group identifier device-template id service-template name mode (activation
| deactivation | initial-authorization | service-correlation-id | service-profile-
download) attributes attribute id normal {
     name name;
     copy-from copy-from;
}
```

### Hierarchy Level

```
[edit shared sic group identifier device-template id service-
template name mode (activation | deactivation | initial-authorization | service-
correlation-id | service-profile-download) attributes attribute id normal]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure a normal attribute to include in the rendered result. If the rendering process finds the attribute in the downstream AAA server response, it copies the value into the RADIUS message. Otherwise, no action occurs. The rendering process does not fail in this case.

`name` *`name`*— Name of an attribute.

**Value**—Text
**Editing Level**—Basic

`copy-from` *`copy-from`*—(Optional) Specify the name of the attribute to copy the value from. If the copy-from option is specified, the renderer looks up the attribute specified by the copy-from option in the downstream AAA server response. In the absence of the copy-from option, the renderer looks up the attribute specified by the name option.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* device-template *id* service-template *name* mode (activation | deactivation | initial-authorization | service-correlation-id | service-profile-download) attributes attribute *id* override

### Syntax

```
shared sic group identifier device-template id service-template name mode (activation
| deactivation | initial-authorization | service-correlation-id | service-profile-
download) attributes attribute id override {
     name name;
     value value;
}
```

### Hierarchy Level

```
[edit shared sic group identifier device-template id service-
template name mode (activation | deactivation | initial-authorization | service-
correlation-id | service-profile-download) attributes attribute id override]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure an override attribute to include in the rendered result. Regardless of whether or not the rendering process finds the attribute in the downstream AAA server response, it creates the attribute name with the specified value.

`name` *`name`*— Name of an attribute.

**Value**—Text
**Editing Level**—Basic

`value` *`value`*— Value of the attribute.

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* device-template *id* service-template *name* mode (activation | deactivation | initial-authorization | service-correlation-id | service-profile-download) attributes attribute *id* parameterized

### Syntax

```
shared sic group identifier device-template id service-template name mode (activation
| deactivation | initial-authorization | service-correlation-id | service-profile-
download) attributes attribute id parameterized {
     format format;
     name name;
}
```

### Hierarchy Level

```
[edit shared sic group identifier device-template id service-
template name mode (activation | deactivation | initial-authorization | service-
correlation-id | service-profile-download) attributes attribute id parameterized]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure a parameterized attribute to include in the rendered result. This attribute is the most powerful and flexible type of attribute. It generates attribute values by using a format specification, which makes it the most flexible of the attributes.

`format` *`format`*— Specify the format of this attribute. The syntax of the format is $(p1) $(p2) ... $(pn) [$p(n+1)]; $(name) is used to define a parameter; you can intersperse literal text in between parameter definitions. Parameters inside [] are optional. If the optional parameter is absent, it, and any literal text included in the square brackets, is ignored. All parameters come from the SRC as input to the rendering process. If you need to use restricted characters in your strings, use the backslash convention: \$, \', \", \[, \], \(, \).

**Value**— In a form of "$(p1) $(p2) ... $(pn) [$p(n+1)]"; in case of restricted characters used, use the backslash to escape.
**Editing Level**—Basic

`name` *`name`*— Name of an attribute.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* device-template *id* service-template *name* mode (activation | deactivation | initial-authorization | service-correlation-id | service-profile-download) attributes attribute *id* required

### Syntax

```
shared sic group identifier device-template id service-template name mode (activation
| deactivation | initial-authorization | service-correlation-id | service-profile-
download) attributes attribute id required {
     name name;
     copy-from copy-from;
}
```

### Hierarchy Level

```
[edit shared sic group identifier device-template id service-
template name mode (activation | deactivation | initial-authorization | service-
correlation-id | service-profile-download) attributes attribute id required]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure required attributes to include in the rendered result. If the renderer finds the attribute in the downstream AAA server response, it copies the value into the RADIUS message. Otherwise, the rendering fails.

`name` *`name`*— Name of an attribute.

**Value**—Text
**Editing Level**—Basic

`copy-from` *`copy-from`*—(Optional) Specify the name of the attribute to copy the value from. If the copy-from option is specified, the renderer looks up the attribute specified by the copy-from option in the downstream AAA server response. In the absence of the copy-from option, the renderer looks up the attribute specified by the name option.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* device-template *id* service-template *name* mode (activation | deactivation | initial-authorization | service-correlation-id | service-profile-download) attributes tagged-group

### Syntax

```
shared sic group identifier device-template id service-template name mode (activation
| deactivation | initial-authorization | service-correlation-id | service-profile-
download) attributes tagged-group {
}
```

### Hierarchy Level

```
[edit shared sic group identifier device-template id service-
template name mode (activation | deactivation | initial-authorization | service-
correlation-id | service-profile-download) attributes tagged-group]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure increment tagged attributes for the template.

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* device-template *id* service-template *name* mode (activation | deactivation | initial-authorization | service-correlation-id | service-profile-download) attributes tagged-group attribute

### Syntax

```
shared sic group identifier device-template id service-template name mode (activation
| deactivation | initial-authorization | service-correlation-id | service-profile-
download) attributes tagged-group attribute id ...
```

### Hierarchy Level

```
[edit shared sic group identifier device-template id service-
template name mode (activation | deactivation | initial-authorization | service-
correlation-id | service-profile-download) attributes tagged-group attribute]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure attributes to include in the rendered result.

### Options

`id` *`id`*— Attribute identifier.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* device-template *id* service-template *name* mode (activation | deactivation | initial-authorization | service-correlation-id | service-profile-download) attributes tagged-group attribute *id* default

### Syntax

```
shared sic group identifier device-template id service-template name mode (activation
| deactivation | initial-authorization | service-correlation-id | service-profile-
download) attributes tagged-group attribute id default {
     name name;
     value value;
     copy-from copy-from;
}
```

### Hierarchy Level

```
[edit shared sic group identifier device-template id service-
template name mode (activation | deactivation | initial-authorization | service-
correlation-id | service-profile-download) attributes tagged-
group attribute id default]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure a default attribute to include in the rendered result. If the rendering process finds the attribute in the downstream AAA server response, it copies the value into the RADIUS message. Otherwise, it creates the attribute name with the specified value.

`name` *`name`*— Name of an attribute.

**Value**—Text
**Editing Level**—Basic

`value` *`value`*— Value of the attribute.

**Value**—Text
**Editing Level**—Basic

`copy-from` *`copy-from`*—(Optional) Specify the name of the attribute to copy the value from. If the copy-from option is specified, the renderer looks up the attribute specified by the copy-from option in the downstream AAA server response. In the absence of the copy-from option, the renderer looks up the attribute specified by the name option.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* device-template *id* service-template *name* mode (activation | deactivation | initial-authorization | service-correlation-id | service-profile-download) attributes tagged-group attribute *id* normal

### Syntax

```
shared sic group identifier device-template id service-template name mode (activation
| deactivation | initial-authorization | service-correlation-id | service-profile-
download) attributes tagged-group attribute id normal {
     name name;
     copy-from copy-from;
}
```

### Hierarchy Level

```
[edit shared sic group identifier device-template id service-
template name mode (activation | deactivation | initial-authorization | service-
correlation-id | service-profile-download) attributes tagged-
group attribute id normal]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure a normal attribute to include in the rendered result. If the rendering process finds the attribute in the downstream AAA server response, it copies the value into the RADIUS message. Otherwise, no action occurs. The rendering process does not fail in this case.

`name` *`name`*— Name of an attribute.

**Value**—Text
**Editing Level**—Basic

`copy-from` *`copy-from`*—(Optional) Specify the name of the attribute to copy the value from. If the copy-from option is specified, the renderer looks up the attribute specified by the copy-from option in the downstream AAA server response. In the absence of the copy-from option, the renderer looks up the attribute specified by the name option.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* device-template *id* service-template *name* mode (activation | deactivation | initial-authorization | service-correlation-id | service-profile-download) attributes tagged-group attribute *id* override

### Syntax

```
shared sic group identifier device-template id service-template name mode (activation
| deactivation | initial-authorization | service-correlation-id | service-profile-
download) attributes tagged-group attribute id override {
     name name;
     value value;
}
```

### Hierarchy Level

```
[edit shared sic group identifier device-template id service-
template name mode (activation | deactivation | initial-authorization | service-
correlation-id | service-profile-download) attributes tagged-
group attribute id override]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure an override attribute to include in the rendered result. Regardless of whether or not the rendering process finds the attribute in the downstream AAA server response, it creates the attribute name with the specified value.

`name` *`name`*— Name of an attribute.

**Value**—Text
**Editing Level**—Basic

`value` *`value`*— Value of the attribute.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* device-template *id* service-template *name* mode (activation | deactivation | initial-authorization | service-correlation-id | service-profile-download) attributes tagged-group attribute *id* parameterized

### Syntax

```
shared sic group identifier device-template id service-template name mode (activation
| deactivation | initial-authorization | service-correlation-id | service-profile-
download) attributes tagged-group attribute id parameterized {
     format format;
     name name;
}
```

### Hierarchy Level

```
[edit shared sic group identifier device-template id service-
template name mode (activation | deactivation | initial-authorization | service-
correlation-id | service-profile-download) attributes tagged-
group attribute id parameterized]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure a parameterized attribute to include in the rendered result. This attribute is the most powerful and flexible type of attribute. It generates attribute values by using a format specification, which makes it the most flexible of the attributes.

`format` *`format`*— Specify the format of this attribute. The syntax of the format is $(p1) $(p2) ... $(pn) [$p(n+1)]; $(name) is used to define a parameter; you can intersperse literal text in between parameter definitions. Parameters inside [] are optional. If the optional parameter is absent, it, and any literal text included in the square brackets, is ignored. All parameters come from the SRC as input to the rendering process. If you need to use restricted characters in your strings, use the backslash convention: \$, \', \", \[, \], \(, \).

**Value**— In a form of "$(p1) $(p2) ... $(pn) [$p(n+1)]"; in case of restricted characters used, use the backslash to escape.
**Editing Level**—Basic

`name` *`name`*— Name of an attribute.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* device-template *id* service-template *name* mode (activation | deactivation | initial-authorization | service-correlation-id | service-profile-download) attributes tagged-group attribute *id* required

### Syntax

```
shared sic group identifier device-template id service-template name mode (activation
| deactivation | initial-authorization | service-correlation-id | service-profile-
download) attributes tagged-group attribute id required {
     name name;
     copy-from copy-from;
}
```

### Hierarchy Level

```
[edit shared sic group identifier device-template id service-
template name mode (activation | deactivation | initial-authorization | service-
correlation-id | service-profile-download) attributes tagged-
group attribute id required]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure required attributes to include in the rendered result. If the renderer finds the attribute in the downstream AAA server response, it copies the value into the RADIUS message. Otherwise, the rendering fails.

`name` *`name`*— Name of an attribute.

**Value**—Text
**Editing Level**—Basic

`copy-from` *`copy-from`*—(Optional) Specify the name of the attribute to copy the value from. If the copy-from option is specified, the renderer looks up the attribute specified by the copy-from option in the downstream AAA server response. In the absence of the copy-from option, the renderer looks up the attribute specified by the name option.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* device-template *id* service-template *name* mode (activation | deactivation | initial-authorization | service-correlation-id | service-profile-download) variable

### Syntax

```
shared sic group identifier device-template id service-template name mode (activation
| deactivation | initial-authorization | service-correlation-id | service-profile-
download) variable name {
     value value;
     type (integer | string);
}
```

### Hierarchy Level

```
[edit shared sic group identifier device-template id service-
template name mode (activation | deactivation | initial-authorization | service-
correlation-id | service-profile-download) variable]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure variables to control the rendering process behavior. Use variables to render information that is not part of RADIUS attributes. Variables provide inner logic for the rendering process. Nothing defined by variables appears in the VSAs sent to the NAS.

### Options

`name` *`name`*— Name of the variable.

**Value**—Text

`value` *`value`*— Value of the variable, usually an integer.

**Value**—Integer in the range -2147483648–2147483647
**Editing Level**—Basic

`type (integer | string)`— Data type of variable.

### Value

- `integer`——
- `string`——

**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* diameter network-element

### Syntax

```
shared sic group identifier diameter network-element id {
     description description;
     failover-policy (round-robin | primary-backup);
}
```

### Hierarchy Level

```
[edit shared sic group identifier diameter network-element]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure a Diameter network element name and failover policy. A Diameter network element is a logical network entity. Each Diameter network element consists of a group of peers that connect to the SIC using the Diameter protocol.

### Options

`id` *`id`*— Name of Diameter network element. Each network element must have a unique name.

**Value**—Text

`description` *`description`*—(Optional) Description of the network element.

**Value**—Text
**Editing Level**—Basic

`failover-policy (round-robin | primary-backup)`—(Optional) Diameter failover policy.

**Value**

- `round-robin`— Use the round-robin failover policy.
- `primary-backup`— Use the primary-backup failover policy.

**Default**— primaryBackup

**Editing Level**—Basic

## Required Privilege Level

system system system

## Required Editing Level

Basic

# shared sic group *identifier* diameter network-element *id* peer

### Syntax

```
shared sic group identifier diameter network-element id peer name {
     description description;
     address address;
     protocol (tcp | sctp);
     port port;
     active-peer;
     priority priority;
}
```

### Hierarchy Level

```
[edit shared sic group identifier diameter network-element id peer]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure the Diameter peer of the SIC Diameter server. For the SIC Diameter server, the peer is always the SRC Diameter server.

### Options

`name` *`name`*— Name of the Diameter peer. For SIC, the peer is always the SRC Diameter server. Each Diameter peer must have a unique name among all peers. This name is used to include the peer in a Diameter network element.

**Value**—Text

`description` *`description`*—(Optional) Description of the remote Diameter peer.

**Value**—Text
**Editing Level**—Basic

`address` *`address`*— Address of the Diameter peer. Specify the address of the SRC Diameter server that is a peer to this SIC Diameter server.

**Value**—IP address
**Editing Level**—Basic

`protocol (tcp | sctp)`—(Optional) Protocol used to transport Diameter messages. Diameter messages are carried over TCP or SCTP. The SIC Diameter server establishes Diameter connections with a peer only over the configured protocol.

**Value**

- `tcp`— Send Diameter messages to this peer by using TCP.
- `sctp`— Send Diameter messages to this peer by using the Stream Control Transport Protocol. Multiple IP addresses may be used for this peer connection. The SIC Diameter server accepts Diameter messages from any of the peer's IP addresses.

**Default**— tcp
**Editing Level**—Basic

`port` *`port`*—(Optional) TCP or SCTP port number. The SIC Diameter server periodically sends Capabilities Exchange requests to the remote peer's listening port over the configured transport protocol.

**Value**—Integer in the range 0–65535
**Default**— 3868
**Editing Level**—Basic

`active-peer`—(Optional) Connect to this peer actively. If the peer is configured to connect actively, the server periodically attempts to connect (or reconnect after a connection has failed) to the remote peer. If this option is not selected, a connection is established only after the remote peer attempts to connect to this server.

**Default**— false
**Editing Level**—Basic

`priority` *`priority`*—(Optional) Priority of failover policy. Peers with lower priority values are the preferred routing targets for Diameter requests. Requests are split equally among peers with the same priority level.

**Value**—Integer in the range 0–2147483647
**Default**— 1
**Editing Level**—Basic

## Required Privilege Level

system system system

## Required Editing Level

Basic

# shared sic group *identifier* diameter network-element *id* peer *name*

### Syntax

```
shared sic group identifier diameter network-element id peer name {
     enforce-source-address;
     origin-host origin-host;
}
```

### Hierarchy Level

```
[edit shared sic group identifier diameter network-element id peer name]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure the origin-host name of the remote Diameter peer. The remote Diameter peer is the SRC Diameter server.

### Options

`enforce-source-address`—(Optional) Enforce source address.

**Default**— false
**Editing Level**—Basic

`origin-host` *`origin-host`*— Origin-host name of the remote peer.

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system system system

### Required Editing Level

Basic

# shared sic group *identifier* diameter network-element *id* peer *name* addresses address

### Syntax

```
shared sic group identifier diameter network-
element id peer name addresses address address ...
```

### Hierarchy Level

```
[edit shared sic group identifier diameter network-
element id peer name addresses address]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure the Diameter peer addresses for SCTP. An IP address of the remote peer is necessary to establish a Diameter connection with the remote peer. For a Diameter connection over TCP, only one configured address is used. Over SCTP, the connection may be established over multiple addresses.

### Options

`address` *`address`*— IP address used for the Diameter connection.

**Value**—IP address

### Required Privilege Level

system system system

### Required Editing Level

Basic

# shared sic group *identifier* dictionary

## Syntax

`shared sic group identifier dictionary id ...`

## Hierarchy Level

`[edit shared sic group identifier dictionary]`

## Release Information

Statement introduced in SRC Release 4.0.0

## Description

Configure a dictionary used by the SIC group. The dictionary is a collection of related RADIUS attributes.

## Options

`id id`— Name of the dictionary. Each dictionary must have a unique name.

**Value**—Text

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* dictionary *id* attribute

### Syntax

```
shared sic group identifier dictionary id attribute id ...
```

### Hierarchy Level

```
[edit shared sic group identifier dictionary id attribute]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the name of the attribute you want to include in the dictionary.

### Options

`id` *`id`*— Name of the attribute you want to define in the dictionary. Each attribute must have a unique name.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* dictionary *id* attribute *id* radius

### Syntax

```
shared sic group identifier dictionary id attribute id radius {
     type type;
     format (one-byte-integer | integer | eight-byte-integer | string | ipv4-address | ipv6-
address | time | octets);
     vendor-id vendor-id;
     encrypt;
     salt-encrypt;
     tagged;
     sensitive;
}
```

### Hierarchy Level

```
[edit shared sic group identifier dictionary id attribute id radius]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the properties of the RADIUS attribute you want included in the dictionary.

### Options

`type` *`type`*— Type of RADIUS attribute specified as an integer value.

**Value**—Integer in the range 0–255
**Editing Level**—Basic

`format (one-byte-integer | integer | eight-byte-integer | string | ipv4-address | ipv6-address | time | octets)`— Format of the RADIUS attribute.

**Value**

- `one-byte-integer`— Attribute value is an 8-bit unsigned integer
- `integer`— Attribute value is a 32-bit unsigned integer
- `eight-byte-integer`— Attribute value is a 64-bit unsigned integer
- `string`— Attribute value is a string
- `ipv4-address`— Attribute value is an IPv4 address
- `ipv6-address`— Attribute value is an IPv6 address
- `time`— Attribute value is a 32-bit unsigned value, with the most significant octet appearing first. The value is equal to the number of seconds since 00:00:00 UTC, January 1, 1970
- `octets`— Attribute value consists of raw bytes

**Editing Level**—Basic

`vendor-id` *`vendor-id`*—(Optional) Attribute is vendor specific and this is the vendor ID.

**Value**—Integer in the range 0–2147483647
**Editing Level**—Basic

`encrypt`—(Optional) Attribute should be encrypted without a salt.

**Default**— false
**Editing Level**—Basic

`salt-encrypt`—(Optional) Attribute should be encrypted with a salt.

**Default**— false
**Editing Level**—Basic

`tagged`—(Optional) RADIUS attribute is tagged.

**Default**— false
**Editing Level**—Basic

`sensitive`—(Optional) RADIUS attribute carries sensitive data, so its value is not logged.

**Default**— false
**Editing Level**—Basic

**Required Privilege Level**

system system

**Required Editing Level**

Basic

# shared sic group *identifier* dictionary *id* attribute *id* radius constant

### Syntax

```
shared sic group identifier dictionary id attribute id radius constant constant-name {
     constant-value;
}
```

### Hierarchy Level

```
[edit shared sic group identifier dictionary id attribute id radius constant]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Define a constant you want to associate with the data contained in the RADIUS attribute. You must define a unique name and a value for the constant.

### Options

`constant-name` *`constant-name`*— Name of the constant. Each constant must have a unique name.

**Value**—Text

*`constant-value`*—(Optional) Value mapped to the constant name.

**Value**—Integer in the range -2147483648–2147483647
**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing

### Syntax

```
shared sic group identifier editing editing-rule {
     mode (replace | append);
}
```

### Hierarchy Level

```
[edit shared sic group identifier editing]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the SIC editing rules. Editing rules allow you to modify values of RADIUS attributes or transaction variables based on an optional condition. Before the SIC sends the request to the specified accounting target, the request can optionally be edited based on the editing rules associated with the selected accounting routing rule. Editing rules are similar to accounting routing rules in that the request is examined for a matching condition and if one is found, the request is edited and then sent to the accounting target.

Editing rules provide power and flexibility to adapt request and response processing in different conditions to provide a standardized result. An example is the extraction of VPN-ID from a RADIUS request, which may be specified differently in incoming RADIUS requests depending on the device and the use case.

In addition to editing RADIUS attributes, the SIC can edit transactional variables. Editing rules can define new transactional variables in addition to certain built-in variables, such as the result of username parsing, NAS client lookup, and so on. Transactional variables are also referenced in the columns of the subscriber sessions table in the SSR database, which allows you to store the results of request processing and editing in the subscriber sessions table. There is a limit on the number of transactional variables; the default value is 255. Changing the limit requires restarting the SIC.

You configure editing rules by defining the source and its associated match conditions, the editing conditions applied to the source value, and the target in which to place the edited result. First, the request is examined for the specified source (RValue) based on match conditions. The value of the source is read and then edited based on the defined editing rule. The result is then placed in the defined target. The edited request sent to the accounting target includes both the original source and the new target value.

Each editing rule is a simple assignment of a source (RValue) and a target (LValue). In any assignment the target can be a transactional variable, a RADIUS attribute in the request, or a RADIUS attribute in the response.

The source can be a literal, a transactional variable, or a RADIUS attribute in the request.

The match conditions that you can test for in the source include whether a specific realm, user identity,

or request attribute is present, not present, equals, does not equal, has a certain suffix, has a certain prefix, or is within a specific range.

If a match condition is found in the source, you can append or replace the value of the source and put it in the target. Additionally, if the source is a request attribute, you can remove the prefix, suffix, or the attribute before or after the @ and place the result in the target. Wildcards are supported for the remove-before and remove-after options.

## Options

`editing-rule` *`editing-rule`*— Name of the editing rule.

**Value**—Text

`mode (replace | append)`—(Optional) Target (LValue) control mode. This setting controls how the target (LValue) is assigned. If a match condition is found on the source, you can append or replace the value of the source and put it in the target.

**Value**

- `replace`— Target (LValue) is replaced with the new value from the editing process
- `append`— Current target (LValue) value is concatenated with the new target value from the editing process

**Default**—replace
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* default

### Syntax

```
shared sic group identifier editing editing-rule default {
     literal literal;
     request-attribute request-attribute;
     variable variable;
}
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule default]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the default RValue to use when no source is selected during the editing process. This default value is used only if none of the defined editing rule conditions are matched.

### Options

`literal` *`literal`*—(Optional) String literal used by default when no source is selected during the editing process.

**Value**—Text
**Editing Level**—Basic

`request-attribute` *`request-attribute`*—(Optional) RADIUS request attribute used by default when no source is selected during the editing process.

**Value**—Text
**Editing Level**—Basic

`variable` *`variable`*—(Optional) Transactional variable used by default when no source is selected during the editing process.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source literal

### Syntax

```
shared sic group identifier editing editing-rule source literal identifier ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source literal]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure a string literal as the source of the editing rule.

### Options

`identifier` *`identifier`*— String literal in the editing rule.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source literal *identifier* condition realm

### Syntax

```
shared sic group identifier editing editing-
rule source literal identifier condition realm {
     (present | not-present);
}
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-
rule source literal identifier condition realm]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure a realm match condition. If the condition is matched in the request, the route is selected.

Check for the presence of this value in the request.

**Value**

- `present`— Value must be present in the request
- `not-present`— Value must not be present in the request

**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source literal *identifier* condition realm does-not-equal

### Syntax

```
shared sic group identifier editing editing-
rule source literal identifier condition realm does-not-equal value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-
rule source literal identifier condition realm does-not-equal]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must not match this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source literal *identifier* condition realm equals

## Syntax

```
shared sic group identifier editing editing-
rule source literal identifier condition realm equals value ...
```

## Hierarchy Level

```
[edit shared sic group identifier editing editing-
rule source literal identifier condition realm equals]
```

## Release Information

Statement introduced in SRC Release 4.0.0

## Description

Configure the match condition. The value in the request must match this value exactly.

## Options

`value` *`value`*— Value of the match condition.

**Value**—Text

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source literal *identifier* condition realm has-prefix

### Syntax

```
shared sic group identifier editing editing-
rule source literal identifier condition realm has-prefix value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-
rule source literal identifier condition realm has-prefix]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must have a prefix that matches this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source literal *identifier* condition realm has-suffix

### Syntax

```
shared sic group identifier editing editing-
rule source literal identifier condition realm has-suffix value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-
rule source literal identifier condition realm has-suffix]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must have a suffix that matches this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source literal *identifier* condition realm range

## Syntax

```
shared sic group identifier editing editing-
rule source literal identifier condition realm range {
     low low;
     high high;
}
```

## Hierarchy Level

```
[edit shared sic group identifier editing editing-
rule source literal identifier condition realm range]
```

## Release Information

Statement introduced in SRC Release 4.0.0

## Description

Configure the range of the match condition. The tested condition value in the realm must be within this range.

## Options

`low` *`low`*—(Optional) Low range in text format.

**Value**—Text
**Editing Level**—Basic

`high` *`high`*—(Optional) High range in text format.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source literal *identifier* condition request

## Syntax

```
shared sic group identifier editing editing-
rule source literal identifier condition request {
}
```

## Hierarchy Level

```
[edit shared sic group identifier editing editing-
rule source literal identifier condition request]
```

## Release Information

Statement introduced in SRC Release 4.0.0

## Description

Configure the name of the request attribute in the match condition and specify the presence option of the condition.

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source literal *identifier* condition request attribute

### Syntax

```
shared sic group identifier editing editing-
rule source literal identifier condition request attribute attribute-name {
     (present | not-present);
}
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-
rule source literal identifier condition request attribute]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the request attribute match condition. If the request attribute condition is matched in the request, the route is selected.

### Options

`attribute-name` *`attribute-name`*— Name of the request attribute.

**Value**—Text

Check for the presence of this value in the request.

**Value**

- `present`— Value must be present in the request
- `not-present`— Value must not be present in the request

**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source literal *identifier* condition request attribute *attribute-name* does-not-equal

### Syntax

```
shared sic group identifier editing editing-
rule source literal identifier condition request attribute attribute-name does-not-equal value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-
rule source literal identifier condition request attribute attribute-name does-not-equal]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must not match this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source literal *identifier* condition request attribute *attribute-name* equals

### Syntax

```
shared sic group identifier editing editing-
rule source literal identifier condition request attribute attribute-name equals value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-
rule source literal identifier condition request attribute attribute-name equals]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must match this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source literal *identifier* condition request attribute *attribute-name* has-prefix

### Syntax

```
shared sic group identifier editing editing-
rule source literal identifier condition request attribute attribute-name has-prefix value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-
rule source literal identifier condition request attribute attribute-name has-prefix]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must have a prefix that matches this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source literal *identifier* condition request attribute *attribute-name* has-suffix

### Syntax

```
shared sic group identifier editing editing-
rule source literal identifier condition request attribute attribute-name has-suffix value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-
rule source literal identifier condition request attribute attribute-name has-suffix]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must have a suffix that matches this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source literal *identifier* condition request attribute *attribute-name* range

### Syntax

```
shared sic group identifier editing editing-
rule source literal identifier condition request attribute attribute-name range {
     low low;
     high high;
}
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-
rule source literal identifier condition request attribute attribute-name range]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the range of the match condition. The tested condition value in the attribute must be within this range.

### Options

`low` *`low`*— Low range in text format.

**Value**—Text
**Editing Level**—Basic

`high` *`high`*— High range in text format.

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source literal *identifier* condition user-identity

### Syntax

```
shared sic group identifier editing editing-
rule source literal identifier condition user-identity {
     (present | not-present);
}
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-
rule source literal identifier condition user-identity]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure a user identity match condition. If the user identity condition is matched in the request, the route is selected. Possible match conditions are present, not present, does not equal, equals, has prefix, has suffix, or range.

Check for the presence of this value in the request.

**Value**

- `present`— Value must be present in the request
- `not-present`— Value must not be present in the request

**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source literal *identifier* condition user-identity does-not-equal

### Syntax

```
shared sic group identifier editing editing-
rule source literal identifier condition user-identity does-not-equal value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-
rule source literal identifier condition user-identity does-not-equal]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must not match this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source literal *identifier* condition user-identity equals

### Syntax

```
shared sic group identifier editing editing-
rule source literal identifier condition user-identity equals value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-
rule source literal identifier condition user-identity equals]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must match this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source literal *identifier* condition user-identity has-prefix

### Syntax

```
shared sic group identifier editing editing-
rule source literal identifier condition user-identity has-prefix value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-
rule source literal identifier condition user-identity has-prefix]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must have a prefix that matches this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source literal *identifier* condition user-identity has-suffix

### Syntax

```
shared sic group identifier editing editing-
rule source literal identifier condition user-identity has-suffix value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-
rule source literal identifier condition user-identity has-suffix]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must have a suffix that matches this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source literal *identifier* condition user-identity range

### Syntax

```
shared sic group identifier editing editing-
rule source literal identifier condition user-identity range {
     low low;
     high high;
}
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-
rule source literal identifier condition user-identity range]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the range of the match condition. Tested condition value in the user identity must be within this range.

### Options

`low` *`low`*—(Optional) Low range in text format.

**Value**—Text
**Editing Level**—Basic

`high` *`high`*—(Optional) High range in text format.

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source request-attribute

### Syntax

```
shared sic group identifier editing editing-rule source request-attribute identifier {
     remove-prefix remove-prefix;
     remove-suffix remove-suffix;
     remove-before remove-before;
     remove-after remove-after;
}
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source request-attribute]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure a RADIUS attribute from the request to be the source of the editing rule. In addition, specify whether you want to remove the prefix, suffix, or attribute before or after the @ in the request.

### Options

`identifier identifier`— RADIUS attribute from request to be used as the source in the editing rule.

**Value**—Text

`remove-prefix remove-prefix`—(Optional) Remove the specified prefix from the request.

**Value**—Text
**Editing Level**—Basic

`remove-suffix remove-suffix`—(Optional) Remove the specified suffix from the request.

**Value**—Text
**Editing Level**—Basic

`remove-before remove-before`—(Optional) Remove everything before the specified prefix from the request.

**Value**—Text
**Editing Level**—Basic

`remove-after` *`remove-after`*—(Optional) Remove everything after the specified suffix from the request.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source request-attribute *identifier* condition realm

### Syntax

```
shared sic group identifier editing editing-rule source request-
attribute identifier condition realm {
     (present | not-present);
}
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source request-
attribute identifier condition realm]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure a realm match condition. If the condition is matched in the request, the route is selected.

Check for the presence of this value in the request.

**Value**

- `present`— Value must be present in the request
- `not-present`— Value must not be present in the request

**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source request-attribute *identifier* condition realm does-not-equal

### Syntax

```
shared sic group identifier editing editing-rule source request-
attribute identifier condition realm does-not-equal value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source request-
attribute identifier condition realm does-not-equal]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must not match this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source request-attribute *identifier* condition realm equals

### Syntax

```
shared sic group identifier editing editing-rule source request-
attribute identifier condition realm equals value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source request-
attribute identifier condition realm equals]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must match this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source request-attribute *identifier* condition realm has-prefix

### Syntax

```
shared sic group identifier editing editing-rule source request-
attribute identifier condition realm has-prefix value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source request-
attribute identifier condition realm has-prefix]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must have a prefix that matches this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source request-attribute *identifier* condition realm has-suffix

### Syntax

```
shared sic group identifier editing editing-rule source request-
attribute identifier condition realm has-suffix value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source request-
attribute identifier condition realm has-suffix]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must have a suffix that matches this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source request-attribute *identifier* condition realm range

### Syntax

```
shared sic group identifier editing editing-rule source request-
attribute identifier condition realm range {
     low low;
     high high;
}
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source request-
attribute identifier condition realm range]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the range of the match condition. The tested condition value in the realm must be within this range.

### Options

`low` *`low`*—(Optional) Low range in text format.

**Value**—Text
**Editing Level**—Basic

`high` *`high`*—(Optional) High range in text format.

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source request-attribute *identifier* condition request

### Syntax

```
shared sic group identifier editing editing-rule source request-
attribute identifier condition request {
}
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source request-
attribute identifier condition request]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the name of the request attribute in the match condition and specify the presence option of the condition.

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source request-attribute *identifier* condition request attribute

### Syntax

```
shared sic group identifier editing editing-rule source request-
attribute identifier condition request attribute attribute-name {
     (present | not-present);
}
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source request-
attribute identifier condition request attribute]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the request attribute match condition. If the request attribute condition is matched in the request, the route is selected.

### Options

`attribute-name` *`attribute-name`*— Name of the request attribute.

**Value**—Text

Check for the presence of this value in the request.

**Value**

- `present`— Value must be present in the request
- `not-present`— Value must not be present in the request

**Editing Level**—Basic

### Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source request-attribute *identifier* condition request attribute *attribute-name* does-not-equal

### Syntax

```
shared sic group identifier editing editing-rule source request-
attribute identifier condition request attribute attribute-name does-not-equal value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source request-
attribute identifier condition request attribute attribute-name does-not-equal]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must not match this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source request-attribute *identifier* condition request attribute *attribute-name* equals

### Syntax

```
shared sic group identifier editing editing-rule source request-
attribute identifier condition request attribute attribute-name equals value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source request-
attribute identifier condition request attribute attribute-name equals]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must match this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source request-attribute *identifier* condition request attribute *attribute-name* has-prefix

### Syntax

```
shared sic group identifier editing editing-rule source request-
attribute identifier condition request attribute attribute-name has-prefix value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source request-
attribute identifier condition request attribute attribute-name has-prefix]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must have a prefix that matches this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source request-attribute *identifier* condition request attribute *attribute-name* has-suffix

### Syntax

```
shared sic group identifier editing editing-rule source request-
attribute identifier condition request attribute attribute-name has-suffix value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source request-
attribute identifier condition request attribute attribute-name has-suffix]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must have a suffix that matches this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source request-attribute *identifier* condition request attribute *attribute-name* range

### Syntax

```
shared sic group identifier editing editing-rule source request-
attribute identifier condition request attribute attribute-name range {
     low low;
     high high;
}
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source request-
attribute identifier condition request attribute attribute-name range]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the range of the match condition. The tested condition value in the attribute must be within this range.

### Options

`low` *`low`*— Low range in text format.

**Value**—Text
**Editing Level**—Basic

`high` *`high`*— High range in text format.

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source request-attribute *identifier* condition user-identity

### Syntax

```
shared sic group identifier editing editing-rule source request-
attribute identifier condition user-identity {
     (present | not-present);
}
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source request-
attribute identifier condition user-identity]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure a user identity match condition. If the user identity condition is matched in the request, the route is selected. Possible match conditions are present, not present, does not equal, equals, has prefix, has suffix, or range.

Check for the presence of this value in the request.

**Value**

- `present`— Value must be present in the request
- `not-present`— Value must not be present in the request

**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source request-attribute *identifier* condition user-identity does-not-equal

### Syntax

```
shared sic group identifier editing editing-rule source request-
attribute identifier condition user-identity does-not-equal value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source request-
attribute identifier condition user-identity does-not-equal]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must not match this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source request-attribute *identifier* condition user-identity equals

### Syntax

```
shared sic group identifier editing editing-rule source request-
attribute identifier condition user-identity equals value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source request-
attribute identifier condition user-identity equals]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must match this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source request-attribute *identifier* condition user-identity has-prefix

### Syntax

```
shared sic group identifier editing editing-rule source request-
attribute identifier condition user-identity has-prefix value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source request-
attribute identifier condition user-identity has-prefix]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must have a prefix that matches this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source request-attribute *identifier* condition user-identity has-suffix

### Syntax

```
shared sic group identifier editing editing-rule source request-
attribute identifier condition user-identity has-suffix value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source request-
attribute identifier condition user-identity has-suffix]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must have a suffix that matches this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source request-attribute *identifier* condition user-identity range

## Syntax

```
shared sic group identifier editing editing-rule source request-
attribute identifier condition user-identity range {
     low low;
     high high;
}
```

## Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source request-
attribute identifier condition user-identity range]
```

## Release Information

Statement introduced in SRC Release 4.0.0

## Description

Configure the range of the match condition. Tested condition value in the user identity must be within this range.

## Options

`low` *`low`*—(Optional) Low range in text format.

**Value**—Text
**Editing Level**—Basic

`high` *`high`*—(Optional) High range in text format.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source variable

### Syntax

```
shared sic group identifier editing editing-rule source variable (user-name | realm)
...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source variable]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure a transactional variable as the source of the editing rule.

### Options

Transactional variable used as source of editing rule.

#### Value

- `user-name`—User-Name transaction variable
- `realm`—Realm transaction variable

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source variable (user-name | realm) condition realm

### Syntax

```
shared sic group identifier editing editing-rule source variable (user-name |
realm) condition realm {
     (present | not-present);
}
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source variable (user-name |
realm) condition realm]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure a realm match condition. If the condition is matched in the request, the route is selected.

Check for the presence of this value in the request.

**Value**

- `present`— Value must be present in the request
- `not-present`— Value must not be present in the request

**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source variable (user-name | realm) condition realm does-not-equal

### Syntax

```
shared sic group identifier editing editing-rule source variable (user-name |
realm) condition realm does-not-equal value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source variable (user-name |
realm) condition realm does-not-equal]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must not match this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source variable (user-name | realm) condition realm equals

### Syntax

```
shared sic group identifier editing editing-rule source variable (user-name |
realm) condition realm equals value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source variable (user-name |
realm) condition realm equals]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must match this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source variable (user-name | realm) condition realm has-prefix

### Syntax

```
shared sic group identifier editing editing-rule source variable (user-name |
realm) condition realm has-prefix value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source variable (user-name |
realm) condition realm has-prefix]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must have a prefix that matches this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source variable (user-name | realm) condition realm has-suffix

### Syntax

```
shared sic group identifier editing editing-rule source variable (user-name |
realm) condition realm has-suffix value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source variable (user-name |
realm) condition realm has-suffix]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must have a suffix that matches this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source variable (user-name | realm) condition realm range

### Syntax

```
shared sic group identifier editing editing-rule source variable (user-name |
realm) condition realm range {
     low low;
     high high;
}
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source variable (user-name |
realm) condition realm range]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the range of the match condition. The tested condition value in the realm must be within this range.

### Options

`low` *`low`*—(Optional) Low range in text format.

**Value**—Text
**Editing Level**—Basic

`high` *`high`*—(Optional) High range in text format.

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source variable (user-name | realm) condition request

## Syntax

```
shared sic group identifier editing editing-rule source variable (user-name |
realm) condition request {
}
```

## Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source variable (user-name |
realm) condition request]
```

## Release Information

Statement introduced in SRC Release 4.0.0

## Description

Configure the name of the request attribute in the match condition and specify the presence option of the condition.

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source variable (user-name | realm) condition request attribute

### Syntax

```
shared sic group identifier editing editing-rule source variable (user-name |
realm) condition request attribute attribute-name {
     (present | not-present);
}
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source variable (user-name |
realm) condition request attribute]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the request attribute match condition. If the request attribute condition is matched in the request, the route is selected.

### Options

`attribute-name` *`attribute-name`*— Name of the request attribute.

**Value**—Text

Check for the presence of this value in the request.

**Value**

- `present`— Value must be present in the request
- `not-present`— Value must not be present in the request

**Editing Level**—Basic

### Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source variable (user-name | realm) condition request attribute *attribute-name* does-not-equal

### Syntax

```
shared sic group identifier editing editing-rule source variable (user-name |
realm) condition request attribute attribute-name does-not-equal value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source variable (user-name |
realm) condition request attribute attribute-name does-not-equal]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must not match this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source variable (user-name | realm) condition request attribute *attribute-name* equals

### Syntax

```
shared sic group identifier editing editing-rule source variable (user-name |
realm) condition request attribute attribute-name equals value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source variable (user-name |
realm) condition request attribute attribute-name equals]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must match this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source variable (user-name | realm) condition request attribute *attribute-name* has-prefix

### Syntax

```
shared sic group identifier editing editing-rule source variable (user-name |
realm) condition request attribute attribute-name has-prefix value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source variable (user-name |
realm) condition request attribute attribute-name has-prefix]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must have a prefix that matches this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source variable (user-name | realm) condition request attribute *attribute-name* has-suffix

### Syntax

```
shared sic group identifier editing editing-rule source variable (user-name |
realm) condition request attribute attribute-name has-suffix value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source variable (user-name |
realm) condition request attribute attribute-name has-suffix]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must have a suffix that matches this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source variable (user-name | realm) condition request attribute *attribute-name* range

### Syntax

```
shared sic group identifier editing editing-rule source variable (user-name |
realm) condition request attribute attribute-name range {
     low low;
     high high;
}
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source variable (user-name |
realm) condition request attribute attribute-name range]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the range of the match condition. The tested condition value in the attribute must be within this range.

### Options

`low` *`low`*— Low range in text format.

**Value**—Text
**Editing Level**—Basic

`high` *`high`*— High range in text format.

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source variable (user-name | realm) condition user-identity

### Syntax

```
shared sic group identifier editing editing-rule source variable (user-name |
realm) condition user-identity {
     (present | not-present);
}
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source variable (user-name |
realm) condition user-identity]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure a user identity match condition. If the user identity condition is matched in the request, the route is selected. Possible match conditions are present, not present, does not equal, equals, has prefix, has suffix, or range.

Check for the presence of this value in the request.

**Value**

- `present`— Value must be present in the request
- `not-present`— Value must not be present in the request

**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source variable (user-name | realm) condition user-identity does-not-equal

### Syntax

```
shared sic group identifier editing editing-rule source variable (user-name |
realm) condition user-identity does-not-equal value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source variable (user-name |
realm) condition user-identity does-not-equal]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must not match this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source variable (user-name | realm) condition user-identity equals

### Syntax

```
shared sic group identifier editing editing-rule source variable (user-name |
realm) condition user-identity equals value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source variable (user-name |
realm) condition user-identity equals]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must match this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source variable (user-name | realm) condition user-identity has-prefix

### Syntax

```
shared sic group identifier editing editing-rule source variable (user-name |
realm) condition user-identity has-prefix value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source variable (user-name |
realm) condition user-identity has-prefix]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must have a prefix that matches this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source variable (user-name | realm) condition user-identity has-suffix

### Syntax

```
shared sic group identifier editing editing-rule source variable (user-name |
realm) condition user-identity has-suffix value ...
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source variable (user-name |
realm) condition user-identity has-suffix]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must have a suffix that matches this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* source variable (user-name | realm) condition user-identity range

### Syntax

```
shared sic group identifier editing editing-rule source variable (user-name |
realm) condition user-identity range {
     low low;
     high high;
}
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule source variable (user-name |
realm) condition user-identity range]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the range of the match condition. Tested condition value in the user identity must be within this range.

### Options

`low` *`low`*—(Optional) Low range in text format.

**Value**—Text
**Editing Level**—Basic

`high` *`high`*—(Optional) High range in text format.

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* editing *editing-rule* target

### Syntax

```
shared sic group identifier editing editing-rule target {
     request-attribute request-attribute;
     response-attribute response-attribute;
     variable (user-name | realm);
}
```

### Hierarchy Level

```
[edit shared sic group identifier editing editing-rule target]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the target (LValue) in which to place the result of the editing process. The target can be a RADIUS request or response attribute or a transaction variable.

### Options

`request-attribute` *`request-attribute`*—(Optional) Target of the editing rule is a RADIUS request attribute.

**Value**—Text
**Editing Level**—Basic

`response-attribute` *`response-attribute`*—(Optional) Target of the editing rule is a RADIUS response attribute.

**Value**—Text
**Editing Level**—Basic

`variable (user-name | realm)`—(Optional) Target of the editing rule is a transactional variable.

**Value**

- `user-name`—User-Name transaction variable
- `realm`—Realm transaction variable

**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* local-realm

### Syntax

```
shared sic group identifier local-realm name ...
```

### Hierarchy Level

```
[edit shared sic group identifier local-realm]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Specify realms that are local to this server, meaning that any requests sent for these realms are treated as if there is no realm in the request.

For servers, the network access identifier (NAI) in the request identifies the intended realm. To properly interpret requests received from intermediate servers, the SIC server must know which realms it is responsible for servicing locally.

When a request is received, the server examines the NAI to determine the realm to which the request should be routed. If the realm name is specified here, the request is handled by this local SIC server. If no realm is present in the NAI, the request is considered to be local.

### Options

`name` *`name`*— Name of a local realm. If the realm to which the request is to be routed is listed in this field, the realm is ignored and the request is processed by this local server. If no realm is present in the network access identifier (NAI), the request is considered to be local.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* model

## Syntax

```
shared sic group identifier model id {
     dictionary dictionary;
}
```

## Hierarchy Level

```
[edit shared sic group identifier model]
```

## Release Information

Statement introduced in SRC Release 4.0.0

## Description

Configure the device models supported by the group and their associated dictionaries.

## Options

`id` *`id`*— Device model name. Each device must have an associated model name.

**Value**—Text

`dictionary` *`dictionary`*— Name of the dictionary used by the device model.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* radius accounting-listener limit

### Syntax

```
shared sic group identifier radius accounting-listener limit {
     incoming-queue incoming-queue;
     transaction-queue transaction-queue;
}
```

### Hierarchy Level

```
[edit shared sic group identifier radius accounting-listener limit]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the accounting listener queue limits.

### Options

`incoming-queue` *`incoming-queue`*—(Optional) Limit of the incoming queue for the accounting listener. When the number of unprocessed received messages surpasses the incoming queue limit, the SIC server stops reading from the transport. Reading from the transport resumes as soon as the number of unprocessed received messages falls below this limit.

**Value**—Integer in the range 0–2147483647
**Default**— 1000
**Editing Level**—Basic

`transaction-queue` *`transaction-queue`*—(Optional) Limit of the transaction queue for the accounting listener. When the number of unscheduled transactions surpasses the transaction queue limit, the SIC server stops reading from the transport. Reading from the transport resumes as soon as the number of unscheduled transactions falls below this limit.

**Value**—Integer in the range 0–2147483647
**Default**— 1000
**Editing Level**—Basic

### Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* radius accounting-listener transport

### Syntax

```
shared sic group identifier radius accounting-listener transport id ...
```

### Hierarchy Level

```
[edit shared sic group identifier radius accounting-listener transport]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the RADIUS accounting listener transport. The accounting listener transport is used to listen for accounting requests from RADIUS clients over UDP.

### Options

`id` *`id`*— Name of the RADIUS accounting listener transport. Each RADIUS accounting transport must have a unique name.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* radius accounting-listener transport *id*

### Syntax

```
shared sic group identifier radius accounting-listener transport id {
     port port;
     connections-per-thread connections-per-thread;
     connect-timeout connect-timeout;
     disconnect-timeout disconnect-timeout;
}
```

### Hierarchy Level

```
[edit shared sic group identifier radius accounting-listener transport id]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the properties of the RADIUS transport used by the accounting listener.

`port` *`port`*— Number of the UDP port on which the SIC listens for RADIUS requests.

**Value**—Integer in the range 0–2147483647
**Editing Level**—Basic

`connections-per-thread` *`connections-per-thread`*—(Optional) Number of UDP connections per thread. A single thread handles this number of connections.

**Value**—Integer in the range 0–15
**Default**— 15
**Editing Level**—Basic

`connect-timeout` *`connect-timeout`*—(Optional) UDP connection timeout in milliseconds. The server waits for this amount of time for a connection.

**Value**—Integer in the range 0–2147483647 ms
**Default**— 1000
**Editing Level**—Basic

`disconnect-timeout` *`disconnect-timeout`*—(Optional) UDP disconnection timeout in milliseconds. The server waits for this amount of time before disconnecting.

**Value**—Integer in the range 0–2147483647 ms
**Default**— 1000
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* radius authentication-listener limit

## Syntax

```
shared sic group identifier radius authentication-listener limit {
     incoming-queue incoming-queue;
     transaction-queue transaction-queue;
}
```

## Hierarchy Level

```
[edit shared sic group identifier radius authentication-listener limit]
```

## Release Information

Statement introduced in SRC Release 4.2.0

## Description

Configure the authentication listener queue limits.

## Options

`incoming-queue` *`incoming-queue`*—(Optional) Limit of the incoming queue for the authentication listener. When the number of unprocessed received messages surpasses the incoming queue limit, the SIC server stops reading from the transport. Reading from the transport resumes as soon as the number of unprocessed received messages falls below this limit.

**Value**—Integer in the range 0–2147483647
**Default**— 1000
**Editing Level**—Basic

`transaction-queue` *`transaction-queue`*—(Optional) Limit of the transaction queue for the authentication listener. When the number of unscheduled transactions surpasses the transaction queue limit, the SIC server stops reading from the transport. Reading from the transport resumes as soon as the number of unscheduled transactions falls below this limit.

**Value**—Integer in the range 0–2147483647
**Default**— 1000
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* radius authentication-listener transport

### Syntax

```
shared sic group identifier radius authentication-listener transport id ...
```

### Hierarchy Level

```
[edit shared sic group identifier radius authentication-listener transport]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure the name of the RADIUS authentication listener transport used by the SIC group. The authentication listener transport is used to listen for authentication requests from RADIUS clients over UDP. Specify a unique name.

### Options

`id` *`id`*— Name of the RADIUS authentication listener transport. Each RADIUS accounting transport must have a unique name.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* radius authentication-listener transport *id*

### Syntax

```
shared sic group identifier radius authentication-listener transport id {
     port port;
     connections-per-thread connections-per-thread;
     connect-timeout connect-timeout;
     disconnect-timeout disconnect-timeout;
}
```

### Hierarchy Level

```
[edit shared sic group identifier radius authentication-listener transport id]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure the properties of the RADIUS transport used by the authentication listener.

`port` *`port`*— Number of the UDP port on which the SIC listens for RADIUS requests.

**Value**—Integer in the range 0–2147483647
**Editing Level**—Basic

`connections-per-thread` *`connections-per-thread`*—(Optional) Number of UDP connections per thread. A single thread handles this number of connections.

**Value**—Integer in the range 0–15
**Default**— 15
**Editing Level**—Basic

`connect-timeout` *`connect-timeout`*—(Optional) UDP connection timeout in milliseconds. The server waits for this amount of time for a connection.

**Value**—Integer in the range 0–2147483647 ms
**Default**— 1000
**Editing Level**—Basic

`disconnect-timeout` *`disconnect-timeout`*—(Optional) UDP disconnection timeout in milliseconds. The server waits for this amount of time before disconnecting.

**Value**—Integer in the range 0–2147483647 ms
**Default**— 1000
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* radius network-element

### Syntax

```
shared sic group identifier radius network-element id ...
```

### Hierarchy Level

```
[edit shared sic group identifier radius network-element]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure a RADIUS network element. A network element is a logical network entity that hosts any number of SIC functions. Each RADIUS network element consists of a group of clients and targets that the SIC server may exchange messages with using the RADIUS protocol. An upstream network element is an accounting and authentication client, or a dynamic authorization target. A downstream network element is an authentication and accounting target.

### Options

`id` *`id`*— Name of the RADIUS network element. Each network element must have a unique name.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* radius network-element *id* downstream (authentication | accounting) accounting-target

### Syntax

```
shared sic group identifier radius network-element id downstream (authentication |
accounting) accounting-target name {
     address address;
     priority priority;
}
```

### Hierarchy Level

```
[edit shared sic group identifier radius network-element id downstream (authentication
| accounting) accounting-target]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the identity of the RADIUS accounting target in the downstream network element including the name, IP address, and failover priority. The accounting target is a downstream AAA server to which the SIC forwards accounting requests.

### Options

`name` *`name`*— Name of the RADIUS accounting target. The accounting target must have a unique name so that it can be identified easily.

**Value**—Text

`address` *`address`*— IP address of the RADIUS accounting target.

**Value**—IP address
**Editing Level**—Basic

`priority` *`priority`*—(Optional) Priority of the accounting target. The lowest priority targets are selected first in a failover policy.

**Value**—Integer in the range 0–2147483647
**Default**— 1
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* radius network-element *id* downstream (authentication | accounting) accounting-target *name*

### Syntax

```
shared sic group identifier radius network-element id downstream (authentication |
accounting) accounting-target name {
     secret secret;
     outbound-transport outbound-transport;
     port port;
}
```

### Hierarchy Level

```
[edit shared sic group identifier radius network-element id downstream (authentication
| accounting) accounting-target name]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the properties of the RADIUS accounting target in the downstream network element including the port, shared secret, and the transport being used for RADIUS messages.

### Options

`secret` *`secret`*— Shared secret used by the RADIUS accounting target. A RADIUS shared secret is a case-sensitive password (text string) used to validate communications between two RADIUS devices, such as a RADIUS-based server and a RADIUS client or target. The shared secret must be configured to match on both devices. Configure shared secrets that are long enough and random enough to resist attack, and avoid using the same shared secret throughout your network.

**Value**—Text
**Editing Level**—Basic

`outbound-transport` *`outbound-transport`*—(Optional) Name of the local transport on the SIC server sending outbound requests to the downstream accounting target.

**Value**—Text
**Editing Level**—Basic

`port` *`port`*

—(Optional) UDP port number on which the RADIUS accounting target listens for accounting requests.

**Value**—Integer in the range 0–2147483647
**Default**— 1813
**Editing Level**—Basic

**Required Privilege Level**

system system

**Required Editing Level**

Basic

# shared sic group *identifier* radius network-element *id* downstream (authentication | accounting) authentication-target

### Syntax

```
shared sic group identifier radius network-element id downstream (authentication |
accounting) authentication-target name {
     address address;
     priority priority;
}
```

### Hierarchy Level

```
[edit shared sic group identifier radius network-element id downstream (authentication
| accounting) authentication-target]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure the identity of the RADIUS authentication target in the downstream network element including the name, IP address, and failover priority. The authentication target is a downstream AAA server to which the SIC forwards authentication requests.

### Options

`name` *`name`*— Name of the RADIUS authentication target. The authentication target must have a unique name so that it can be identified easily.

**Value**—Text

`address` *`address`*— IP address of the RADIUS authentication target.

**Value**—IP address
**Editing Level**—Basic

`priority` *`priority`*—(Optional) Priority of the authentication target. The lowest priority targets are selected first in a failover policy.

**Value**—Integer in the range 0–2147483647
**Default**— 1
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* radius network-element *id* downstream (authentication | accounting) authentication-target *name*

### Syntax

```
shared sic group identifier radius network-element id downstream (authentication |
accounting) authentication-target name {
     secret secret;
     outbound-transport outbound-transport;
     port port;
}
```

### Hierarchy Level

```
[edit shared sic group identifier radius network-element id downstream (authentication
| accounting) authentication-target name]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure the properties of the RADIUS authentication target in the downstream network element including the port, shared secret, and the transport being used for RADIUS messages.

### Options

`secret` *`secret`*— Shared secret used by the RADIUS authentication target. A RADIUS shared secret is a case-sensitive password (text string) used to validate communications between two RADIUS devices, such as a RADIUS-based server and a RADIUS client or target. The shared secret must be configured to match on both devices. Configure shared secrets that are long enough and random enough to resist attack, and avoid using the same shared secret throughout your network.

**Value**—Text
**Editing Level**—Basic

`outbound-transport` *`outbound-transport`*—(Optional) Name of the local transport on the SIC server sending outbound requests to the downstream authentication target.

**Value**—Text
**Editing Level**—Basic

`port` *`port`*

—(Optional) UDP port number on which the RADIUS authentication target listens for authentication requests.

**Value**—Integer in the range 0–2147483647
**Default**— 1812
**Editing Level**—Basic

**Required Privilege Level**

system system

**Required Editing Level**

Basic

# shared sic group *identifier* radius network-element *id* downstream (authentication | accounting) failover-policy

## Syntax

```
shared sic group identifier radius network-element id downstream (authentication |
accounting) failover-policy {
}
```

## Hierarchy Level

```
[edit shared sic group identifier radius network-element id downstream (authentication
| accounting) failover-policy]
```

## Release Information

Statement introduced in SRC Release 4.0.0

## Description

Configure the failover policy for the downstream RADIUS network element.

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* radius network-element *id* downstream (authentication | accounting) failover-policy fast-fail

## Syntax

```
shared sic group identifier radius network-element id downstream (authentication |
accounting) failover-policy fast-fail {
     minimum-number minimum-number;
     timeout timeout;
     reset-delay reset-delay;
}
```

## Hierarchy Level

```
[edit shared sic group identifier radius network-element id downstream (authentication
| accounting) failover-policy fast-fail]
```

## Release Information

Statement introduced in SRC Release 4.0.0

## Description

Configure the fast fail options of the failover policy. The fast fail options control how the server handles unreachable targets. When the server sends a message to a target, it expects to receive a reply. If the server does not receive the reply within the timeframe specified by the fast fail policy, it goes into fast fail mode for that target and rejects the request.

## Options

`minimum-number` *`minimum-number`*—(Optional) Minimum number of attempts for the failover policy. This number specifies the minimum number of times the server retransmits a message if an acknowledgment from the target is not received; if the minimum number is exhausted, the server places the target in fast fail.

**Value**—Integer in the range 0–2147483647
**Default**— 3
**Editing Level**—Basic

`timeout` *`timeout`*—(Optional) Time in seconds before the server goes into fast fail mode for that target.

**Value**—Integer in the range 0–2147483647 s
**Default**— 3
**Editing Level**—Basic

`reset-delay` *`reset-delay`*—(Optional) Time in seconds after which the server comes out of fast fail mode for that target.

**Value**—Integer in the range 0–2147483647 s
**Default**— 30
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* radius network-element *id* downstream (authentication | accounting) failover-policy retry

### Syntax

```
shared sic group identifier radius network-element id downstream (authentication |
accounting) failover-policy retry {
     number number;
     timeout timeout;
}
```

### Hierarchy Level

```
[edit shared sic group identifier radius network-element id downstream (authentication
| accounting) failover-policy retry]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the retry options for the target. The retry options control how the server retries failed requests.

### Options

`number` *`number`*—(Optional) Maximum number of attempts. This number specifies the maximum number of times a message is retransmitted if an acknowledgment from the target is not received; if the maximum number is exhausted, the original request is rejected.

**Value**—Integer in the range 0–2147483647
**Default**— 3
**Editing Level**—Basic

`timeout` *`timeout`*—(Optional) Number of seconds between retry attempts.

**Value**—Integer in the range 0–2147483647 s
**Default**— 4
**Editing Level**—Basic

### Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* radius network-element *id* downstream failover-mode

### Syntax

```
shared sic group identifier radius network-element id downstream (authentication |
accounting) {
     failover-mode (round-robin | primary-backup);
}
```

### Hierarchy Level

```
[edit shared sic group identifier radius network-element id downstream]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the failover mode for the downstream network element. The failover mode manages how messages are sent over multiple paths to the network element.

### Options

Name of the RADIUS network element. Each network element must have a unique name.

**Value**

- `authentication`— Configure the downstream authentication targets and failover properties.
- `accounting`— Configure the downstream accounting targets and failover properties.

**Default**—acct

`failover-mode (round-robin | primary-backup)`—(Optional) Failover mode used by the SIC for this network element.

**Value**

- `round-robin`— Failover mode used by the server is the round-robin method. When this failover mode is used, the server alternates the path it uses to send messages to the RADIUS network element target.
- `primary-backup`— Failover mode used by the server is the primary backup method. When this failover mode is used, the server sends requests to the primary target unless it is unavailable, in which case it

sends requests to the backup target.

**Default**—primary-backup
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* radius network-element *id* downstream model

### Syntax

```
shared sic group identifier radius network-element id downstream {
     model model;
}
```

### Hierarchy Level

```
[edit shared sic group identifier radius network-element id downstream]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the downstream RADIUS network element. A downstream RADIUS network element is an authentication and accounting target to which this server may send RADIUS requests. The downstream target is an AAA server.

### Options

`model` *`model`*— Device model of the RADIUS network element target. Only device models that have previously been configured for the group may be specified.

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* radius network-element *id* proxy

### Syntax

```
shared sic group identifier radius network-element id proxy {
     default-route-for-all-realms;
}
```

### Hierarchy Level

```
[edit shared sic group identifier radius network-element id proxy]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Assign the proxy function to this downstream network element. This option is used to set implicit routing options. The proxy function instructs the SIC server to forward (proxy) accounting requests to this downstream network element (AAA server).

### Options

`default-route-for-all-realms`—(Optional) Default route for all realms. If this option is enabled, this is the default route for messages received for all realms.

**Default**— false
**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* radius network-element *id* proxy realm

### Syntax

```
shared sic group identifier radius network-element id proxy realm realmValue {
     condition (exact | prefix);
}
```

### Hierarchy Level

```
[edit shared sic group identifier radius network-element id proxy realm]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the realm names and match conditions for the network element. Any accounting requests received by the SIC server destined for these realms is routed to this network element if there is a match on these realm conditions.

### Options

`realmValue` *`realmValue`*— Realm name. Each realm name must be unique.

**Value**—Text

`condition (exact | prefix)`— Realm match condition. Route the request to this network element if this condition is matched.

**Value**

- `exact`— realmValue must exactly match the realm string in the request.
- `prefix`— realmValue must match the beginning of the realm string in the request.

**Editing Level**—Basic

### Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* radius network-element *id* upstream

### Syntax

```
shared sic group identifier radius network-element id upstream {
     model model;
}
```

### Hierarchy Level

```
[edit shared sic group identifier radius network-element id upstream]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Assign the upstream function to this network element and configure the device model of the client device. The upstream function is assigned to RADIUS clients that send RADIUS requests to this server or receive dynamic authorization requests from this server.

### Options

`model` *`model`*— Device model of the RADIUS client. This device model must have been previously configured for the SIC group.

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* radius network-element *id* upstream dynamic-authorization-target

### Syntax

```
shared sic group identifier radius network-element id upstream dynamic-authorization-
target {
     failover-mode (round-robin | primary-backup);
}
```

### Hierarchy Level

```
[edit shared sic group identifier radius network-element id upstream dynamic-
authorization-target]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure the failover mode for the RADIUS dynamic authorization target.

### Options

`failover-mode (round-robin | primary-backup)`— Failover mode used by the SIC for this network element.

#### Value

- `round-robin`— Failover mode used by the server is the round-robin method. When this failover mode is used, the server alternates the path it uses to send messages to the downstream RADIUS network element target.
- `primary-backup`— Failover mode used by the server is the primary backup method. When this failover mode is used, the server sends requests to the primary target unless it is unavailable, in which case it sends requests to the backup target.

**Default**—primaryBackup
**Editing Level**—Basic

### Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* radius network-element *id* upstream dynamic-authorization-target failover-policy

## Syntax

```
shared sic group identifier radius network-element id upstream dynamic-authorization-
target failover-policy {
}
```

## Hierarchy Level

```
[edit shared sic group identifier radius network-element id upstream dynamic-
authorization-target failover-policy]
```

## Release Information

Statement introduced in SRC Release 4.2.0

## Description

Configure the failover policy for the dynamic authorization target in the upstream network element.

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* radius network-element *id* upstream dynamic-authorization-target failover-policy fast-fail

## Syntax

```
shared sic group identifier radius network-element id upstream dynamic-authorization-
target failover-policy fast-fail {
     minimum-number minimum-number;
     timeout timeout;
     reset-delay reset-delay;
}
```

## Hierarchy Level

```
[edit shared sic group identifier radius network-element id upstream dynamic-
authorization-target failover-policy fast-fail]
```

## Release Information

Statement introduced in SRC Release 4.2.0

## Description

Configure the fast fail options of the failover policy. The fast fail options control how the server handles unreachable targets. When the server sends a message to a target, it expects to receive a reply. If the server does not receive the reply within the timeframe specified by the fast fail policy, it goes into fast fail mode for that target and rejects the request.

## Options

`minimum-number` *`minimum-number`*— Minimum number of attempts for the failover policy. This number specifies the minimum number of times the server retransmits a message if an acknowledgment from the target is not received; if the minimum number is exhausted, the server places the target in fast fail.

**Value**—Integer in the range 0–2147483647
**Default**— 3
**Editing Level**—Basic

`timeout` *`timeout`*— Time in seconds before the server goes into fast fail mode for that target.

**Value**—Integer in the range 0–2147483647 s
**Default**— 3
**Editing Level**—Basic

`reset-delay` *`reset-delay`*— Time in seconds after which the server comes out of fast fail mode for that target.

**Value**—Integer in the range 0–2147483647 s
**Default**— 30
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* radius network-element *id* upstream dynamic-authorization-target failover-policy retry

### Syntax

```
shared sic group identifier radius network-element id upstream dynamic-authorization-
target failover-policy retry {
     number number;
     timeout timeout;
}
```

### Hierarchy Level

```
[edit shared sic group identifier radius network-element id upstream dynamic-
authorization-target failover-policy retry]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure the retry options for the target. The retry options control how the server retries failed requests.

### Options

`number` *`number`*— Maximum number of attempts. This number specifies the maximum number of times a message is retransmitted if an acknowledgment from the target is not received; if the maximum number is exhausted, the original request is rejected.

**Value**—Integer in the range 0–2147483647
**Default**— 3
**Editing Level**—Basic

`timeout` *`timeout`*— Number of seconds between retry attempts.

**Value**—Integer in the range 0–2147483647 s
**Default**— 4
**Editing Level**—Basic

### Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* radius network-element *id* upstream dynamic-authorization-target target

### Syntax

```
shared sic group identifier radius network-element id upstream dynamic-authorization-
target target name {
     address address;
     priority priority;
}
```

### Hierarchy Level

```
[edit shared sic group identifier radius network-element id upstream dynamic-
authorization-target target]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure the identity of the RADIUS dynamic authorization target in the upstream network element including the name, IP address, and failover priority. The dynamic authorization target is an NAS to which the SIC server forwards dynamic authorization requests.

### Options

`name` *`name`*— Name of the RADIUS dynamic authorization target. The dynamic authorization target must have a unique name so that it can be identified easily.

**Value**—Text

`address` *`address`*— IP address of the RADIUS dynamic authorization target.

**Value**—IP address
**Editing Level**—Basic

`priority` *`priority`*—(Optional) Priority of the dynamic authorization target. The lowest priority targets are selected first in a failover policy.

**Value**—Integer in the range 0–2147483647
**Default**— 1
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* radius network-element *id* upstream dynamic-authorization-target target *name*

### Syntax

```
shared sic group identifier radius network-element id upstream dynamic-authorization-
target target name {
     secret secret;
     port port;
}
```

### Hierarchy Level

```
[edit shared sic group identifier radius network-element id upstream dynamic-
authorization-target target name]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure the properties of the RADIUS dynamic authorization target in the upstream network element including the port, shared secret, and the transport being used for RADIUS messages.

### Options

`secret` *`secret`*— Shared secret used by the RADIUS dynamic authorization target. A RADIUS shared secret is a case-sensitive password (text string) used to validate communications between two RADIUS devices, such as a RADIUS-based server and a RADIUS client or target. The shared secret must be configured to match on both devices. Configure shared secrets that are long enough and random enough to resist attack, and avoid using the same shared secret throughout your network.

**Value**—Text
**Editing Level**—Basic

`port` *`port`*—(Optional) UDP port number on which the RADIUS dynamic authorization target listens for COA/DM requests.

**Value**—Integer in the range 0–2147483647
**Default**— 3799
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* radius network-element *id* upstream radius-client

### Syntax

```
shared sic group identifier radius network-element id upstream radius-client id {
     address address;
     accounting-secret accounting-secret;
     authentication-secret authentication-secret;
}
```

### Hierarchy Level

```
[edit shared sic group identifier radius network-element id upstream radius-client]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the settings for the RADIUS authentication and accounting clients sending requests to the SIC server.

### Options

`id` *`id`*— Name of the RADIUS authentication and accounting client. Each client must have a unique name among all clients.

**Value**—Text

`address` *`address`*— IP address of the RADIUS client sending authentication and accounting requests to the SIC server.

**Value**—IP address
**Editing Level**—Basic

`accounting-secret` *`accounting-secret`*—(Optional) Shared secret used by the accounting client. If unspecified, no shared secret is used.

**Value**—Text
**Editing Level**—Basic

`authentication-secret` *`authentication-secret`*—(Optional) Shared secret used by the

authentication client. If unspecified, no shared secret is used.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* radius outbound-transport

### Syntax

```
shared sic group identifier radius outbound-transport transport-name ...
```

### Hierarchy Level

```
[edit shared sic group identifier radius outbound-transport]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the name of the RADIUS transport used to send outbound requests to RADIUS targets over UDP.

### Options

`transport-name` *`transport-name`*— Name of the RADIUS outbound transport. Each RADIUS outbound transport must have a unique name.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* radius outbound-transport *transport-name*

### Syntax

```
shared sic group identifier radius outbound-transport transport-name {
     connections-per-thread connections-per-thread;
     connect-timeout connect-timeout;
     disconnect-timeout disconnect-timeout;
     port port;
     port-range-size port-range-size;
}
```

### Hierarchy Level

```
[edit shared sic group identifier radius outbound-transport transport-name]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the properties of the RADIUS transport used to send outbound requests to RADIUS targets over UDP.

`connections-per-thread` *`connections-per-thread`*—(Optional) Number of UDP connections per thread. A single thread handles this number of UDP connections.

**Value**—Integer in the range 0–15
**Default**— 15
**Editing Level**—Basic

`connect-timeout` *`connect-timeout`*—(Optional) UDP connection timeout in milliseconds. The server waits for this amount of time for a connection.

**Value**—Integer in the range 0–2147483647 ms
**Default**— 1000
**Editing Level**—Basic

`disconnect-timeout` *`disconnect-timeout`*—(Optional) UDP disconnection timeout in milliseconds. The server waits for this amount of time before disconnecting.

**Value**—Integer in the range 0–2147483647 ms
**Default**— 1000
**Editing Level**—Basic

`port` *`port`*— Outbound starting UDP port number. This server sends RADIUS packets from a port range starting with this UDP port number.

**Value**—Integer in the range 0–2147483647
**Default**—0
**Editing Level**—Basic

`port-range-size` *`port-range-size`*—(Optional) UDP source port range size. This value specifies the range of UDP ports that is used to send RADIUS packets.

**Value**—Integer in the range 0–2147483647
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* server

## Syntax

```
shared sic group identifier server identifier ...
```

## Hierarchy Level

```
[edit shared sic group identifier server]
```

## Release Information

Statement introduced in SRC Release 4.0.0

## Description

Configure the properties of the server belonging to the SIC group.

## Options

`identifier` *`identifier`*— Name of the SIC server using this group configuration. The server name must have previously been configured with the configuration statement-slot number sic server. This server name must match the name specified with the statement-slot number sic server.

**Value**— Text

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* server *identifier* accounting-route

### Syntax

```
shared sic group identifier server identifier accounting-route id ...
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier accounting-route]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure an explicit accounting route and the criteria used by the server to select the accounting routing target. Multiple accounting routes are evaluated in the order they are displayed by the show command. A newly created accounting route is displayed last among the route and therefore is evaluated last. Use the SRC CLI insert command to move an accounting route before or after another route to change its evaluation order.

### Options

`id` *`id`*— Name of the explicit accounting route. An accounting route must have a unique name.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* accounting-route *id* condition realm

### Syntax

```
shared sic group identifier server identifier accounting-route id condition realm {
     (present | not-present);
}
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier accounting-route id condition realm]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure a realm match condition. If the condition is matched in the request, the route is selected.

Check for the presence of this value in the request.

**Value**

- `present`— Value must be present in the request
- `not-present`— Value must not be present in the request

**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* accounting-route *id* condition realm does-not-equal

### Syntax

```
shared sic group identifier server identifier accounting-route id condition realm does-
not-equal value ...
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier accounting-
route id condition realm does-not-equal]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must not match this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* accounting-route *id* condition realm equals

## Syntax

```
shared sic group identifier server identifier accounting-
route id condition realm equals value ...
```

## Hierarchy Level

```
[edit shared sic group identifier server identifier accounting-
route id condition realm equals]
```

## Release Information

Statement introduced in SRC Release 4.0.0

## Description

Configure the match condition. The value in the request must match this value exactly.

## Options

`value` *`value`*— Value of the match condition.

**Value**—Text

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* server *identifier* accounting-route *id* condition realm has-prefix

### Syntax

```
shared sic group identifier server identifier accounting-route id condition realm has-
prefix value ...
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier accounting-
route id condition realm has-prefix]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must have a prefix that matches this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* accounting-route *id* condition realm has-suffix

### Syntax

```
shared sic group identifier server identifier accounting-route id condition realm has-
suffix value ...
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier accounting-
route id condition realm has-suffix]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must have a suffix that matches this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* accounting-route *id* condition realm range

### Syntax

```
shared sic group identifier server identifier accounting-route id condition realm range {
     low low;
     high high;
}
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier accounting-
route id condition realm range]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the range of the match condition. The tested condition value in the realm must be within this range.

### Options

`low` *`low`*—(Optional) Low range in text format.

**Value**—Text
**Editing Level**—Basic

`high` *`high`*—(Optional) High range in text format.

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* accounting-route *id* condition request

## Syntax

```
shared sic group identifier server identifier accounting-route id condition request {
}
```

## Hierarchy Level

```
[edit shared sic group identifier server identifier accounting-
route id condition request]
```

## Release Information

Statement introduced in SRC Release 4.0.0

## Description

Configure the name of the request attribute in the match condition and specify the presence option of the condition.

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* server *identifier* accounting-route *id* condition request attribute

### Syntax

```
shared sic group identifier server identifier accounting-
route id condition request attribute attribute-name {
     (present | not-present);
}
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier accounting-
route id condition request attribute]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the request attribute match condition. If the request attribute condition is matched in the request, the route is selected.

### Options

`attribute-name` *`attribute-name`*— Name of the request attribute.

**Value**—Text

Check for the presence of this value in the request.

**Value**

- `present`— Value must be present in the request
- `not-present`— Value must not be present in the request

**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* accounting-route *id* condition request attribute *attribute-name* does-not-equal

### Syntax

```
shared sic group identifier server identifier accounting-
route id condition request attribute attribute-name does-not-equal value ...
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier accounting-
route id condition request attribute attribute-name does-not-equal]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must not match this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* accounting-route *id* condition request attribute *attribute-name* equals

### Syntax

```
shared sic group identifier server identifier accounting-
route id condition request attribute attribute-name equals value ...
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier accounting-
route id condition request attribute attribute-name equals]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must match this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* accounting-route *id* condition request attribute *attribute-name* has-prefix

### Syntax

```
shared sic group identifier server identifier accounting-
route id condition request attribute attribute-name has-prefix value ...
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier accounting-
route id condition request attribute attribute-name has-prefix]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must have a prefix that matches this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* accounting-route *id* condition request attribute *attribute-name* has-suffix

### Syntax

```
shared sic group identifier server identifier accounting-
route id condition request attribute attribute-name has-suffix value ...
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier accounting-
route id condition request attribute attribute-name has-suffix]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must have a suffix that matches this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* accounting-route *id* condition request attribute *attribute-name* range

### Syntax

```
shared sic group identifier server identifier accounting-
route id condition request attribute attribute-name range {
     low low;
     high high;
}
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier accounting-
route id condition request attribute attribute-name range]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the range of the match condition. The tested condition value in the attribute must be within this range.

### Options

`low` *`low`*— Low range in text format.

**Value**—Text
**Editing Level**—Basic

`high` *`high`*— High range in text format.

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* accounting-route *id* condition user-identity

### Syntax

```
shared sic group identifier server identifier accounting-route id condition user-identity
{
     (present | not-present);
}
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier accounting-route id condition user-
identity]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure a user identity match condition. If the user identity condition is matched in the request, the route is selected. Possible match conditions are present, not present, does not equal, equals, has prefix, has suffix, or range.

Check for the presence of this value in the request.

**Value**

- `present`— Value must be present in the request
- `not-present`— Value must not be present in the request

**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* accounting-route *id* condition user-identity does-not-equal

## Syntax

```
shared sic group identifier server identifier accounting-route id condition user-
identity does-not-equal value ...
```

## Hierarchy Level

```
[edit shared sic group identifier server identifier accounting-route id condition user-
identity does-not-equal]
```

## Release Information

Statement introduced in SRC Release 4.0.0

## Description

Configure the match condition. The value in the request must not match this value exactly.

## Options

`value` *`value`*— Value of the match condition.

**Value**—Text

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* server *identifier* accounting-route *id* condition user-identity equals

## Syntax

```
shared sic group identifier server identifier accounting-route id condition user-
identity equals value ...
```

## Hierarchy Level

```
[edit shared sic group identifier server identifier accounting-route id condition user-
identity equals]
```

## Release Information

Statement introduced in SRC Release 4.0.0

## Description

Configure the match condition. The value in the request must match this value exactly.

## Options

`value` *`value`*— Value of the match condition.

**Value**—Text

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* server *identifier* accounting-route *id* condition user-identity has-prefix

## Syntax

```
shared sic group identifier server identifier accounting-route id condition user-
identity has-prefix value ...
```

## Hierarchy Level

```
[edit shared sic group identifier server identifier accounting-route id condition user-
identity has-prefix]
```

## Release Information

Statement introduced in SRC Release 4.0.0

## Description

Configure the match condition. The value in the request must have a prefix that matches this value exactly.

## Options

`value` *`value`*— Value of the match condition.

**Value**—Text

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* server *identifier* accounting-route *id* condition user-identity has-suffix

### Syntax

```
shared sic group identifier server identifier accounting-route id condition user-
identity has-suffix value ...
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier accounting-route id condition user-
identity has-suffix]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must have a suffix that matches this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* accounting-route *id* condition user-identity range

### Syntax

```
shared sic group identifier server identifier accounting-route id condition user-
identity range {
     low low;
     high high;
}
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier accounting-route id condition user-
identity range]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the range of the match condition. Tested condition value in the user identity must be within this range.

### Options

`low` *`low`*—(Optional) Low range in text format.

**Value**—Text
**Editing Level**—Basic

`high` *`high`*—(Optional) High range in text format.

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* accounting-route *id* editing

### Syntax

```
shared sic group identifier server identifier accounting-route id editing editing-rule
...
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier accounting-route id editing]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Specify an editing rule you want applied to the request before the server sends it to the accounting target. If the route is selected, the request is edited according to this editing rule before the request is sent to the accounting target.

### Options

`editing-rule` *`editing-rule`*— Name of the editing rule to be applied to the request if this route is selected.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* accounting-route *id* target

### Syntax

```
shared sic group identifier server identifier accounting-route id target {
     accounting-method accounting-method;
}
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier accounting-route id target]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the target of the accounting route. If this route is selected, packets are routed to this target.

### Options

`accounting-method` *`accounting-method`*— Accounting method (accounting target) used if the route is selected. If all match conditions are met and this route is selected, packets are routed to this accounting target.

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* authentication-route

### Syntax

```
shared sic group identifier server identifier authentication-route id ...
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier authentication-route]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure an explicit authentication route. An authentication route is a collection of criteria used to select a particular authentication routing target. Multiple authentication routes are evaluated in the order they are displayed by the show command. A newly created authentication route is displayed last among the routes and has the lowest priority, so it is evaluated last. You can use the SRC CLI insert command to move an authentication route before or after another route to change its evaluation order. The higher a route is displayed on the list, the sooner it is evaluated.

### Options

`id` *`id`*— Name of the explicit authentication route. An authentication route must have a unique name.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* authentication-route *id* condition realm

### Syntax

```
shared sic group identifier server identifier authentication-route id condition realm {
     (present | not-present);
}
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier authentication-route id condition realm]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure a realm match condition. If the condition is matched in the request, the route is selected.

Check for the presence of this value in the request.

**Value**

- `present`— Value must be present in the request
- `not-present`— Value must not be present in the request

**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* authentication-route *id* condition realm does-not-equal

### Syntax

```
shared sic group identifier server identifier authentication-route id condition realm does-not-
equal value ...
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier authentication-
route id condition realm does-not-equal]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must not match this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* authentication-route *id* condition realm equals

### Syntax

```
shared sic group identifier server identifier authentication-
route id condition realm equals value ...
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier authentication-
route id condition realm equals]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must match this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* authentication-route *id* condition realm has-prefix

### Syntax

```
shared sic group identifier server identifier authentication-route id condition realm has-
prefix value ...
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier authentication-
route id condition realm has-prefix]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must have a prefix that matches this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* authentication-route *id* condition realm has-suffix

### Syntax

```
shared sic group identifier server identifier authentication-route id condition realm has-
suffix value ...
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier authentication-
route id condition realm has-suffix]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must have a suffix that matches this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* authentication-route *id* condition realm range

### Syntax

```
shared sic group identifier server identifier authentication-route id condition realm range {
     low low;
     high high;
}
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier authentication-
route id condition realm range]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the range of the match condition. The tested condition value in the realm must be within this range.

### Options

`low` *`low`*—(Optional) Low range in text format.

**Value**—Text
**Editing Level**—Basic

`high` *`high`*—(Optional) High range in text format.

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* authentication-route *id* condition request

### Syntax

```
shared sic group identifier server identifier authentication-route id condition request {
}
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier authentication-route id condition request]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the name of the request attribute in the match condition and specify the presence option of the condition.

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* authentication-route *id* condition request attribute

### Syntax

```
shared sic group identifier server identifier authentication-
route id condition request attribute attribute-name {
     (present | not-present);
}
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier authentication-
route id condition request attribute]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the request attribute match condition. If the request attribute condition is matched in the request, the route is selected.

### Options

`attribute-name` *`attribute-name`*— Name of the request attribute.

**Value**—Text

Check for the presence of this value in the request.

**Value**

- `present`— Value must be present in the request
- `not-present`— Value must not be present in the request

**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* authentication-route *id* condition request attribute *attribute-name* does-not-equal

### Syntax

```
shared sic group identifier server identifier authentication-
route id condition request attribute attribute-name does-not-equal value ...
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier authentication-
route id condition request attribute attribute-name does-not-equal]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must not match this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* authentication-route *id* condition request attribute *attribute-name* equals

### Syntax

```
shared sic group identifier server identifier authentication-
route id condition request attribute attribute-name equals value ...
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier authentication-
route id condition request attribute attribute-name equals]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must match this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* authentication-route *id* condition request attribute *attribute-name* has-prefix

### Syntax

```
shared sic group identifier server identifier authentication-
route id condition request attribute attribute-name has-prefix value ...
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier authentication-
route id condition request attribute attribute-name has-prefix]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must have a prefix that matches this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* authentication-route *id* condition request attribute *attribute-name* has-suffix

### Syntax

```
shared sic group identifier server identifier authentication-
route id condition request attribute attribute-name has-suffix value ...
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier authentication-
route id condition request attribute attribute-name has-suffix]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must have a suffix that matches this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* authentication-route *id* condition request attribute *attribute-name* range

### Syntax

```
shared sic group identifier server identifier authentication-
route id condition request attribute attribute-name range {
     low low;
     high high;
}
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier authentication-
route id condition request attribute attribute-name range]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the range of the match condition. The tested condition value in the attribute must be within this range.

### Options

`low` *`low`*— Low range in text format.

**Value**—Text
**Editing Level**—Basic

`high` *`high`*— High range in text format.

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* authentication-route *id* condition user-identity

### Syntax

```
shared sic group identifier server identifier authentication-route id condition user-identity {
     (present | not-present);
}
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier authentication-route id condition user-
identity]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure a user identity match condition. If the user identity condition is matched in the request, the route is selected. Possible match conditions are present, not present, does not equal, equals, has prefix, has suffix, or range.

Check for the presence of this value in the request.

**Value**

- `present`— Value must be present in the request
- `not-present`— Value must not be present in the request

**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* authentication-route *id* condition user-identity does-not-equal

### Syntax

```
shared sic group identifier server identifier authentication-route id condition user-
identity does-not-equal value ...
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier authentication-route id condition user-
identity does-not-equal]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must not match this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* authentication-route *id* condition user-identity equals

### Syntax

```
shared sic group identifier server identifier authentication-route id condition user-
identity equals value ...
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier authentication-route id condition user-
identity equals]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must match this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* authentication-route *id* condition user-identity has-prefix

### Syntax

```
shared sic group identifier server identifier authentication-route id condition user-
identity has-prefix value ...
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier authentication-route id condition user-
identity has-prefix]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must have a prefix that matches this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* authentication-route *id* condition user-identity has-suffix

### Syntax

```
shared sic group identifier server identifier authentication-route id condition user-
identity has-suffix value ...
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier authentication-route id condition user-
identity has-suffix]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the match condition. The value in the request must have a suffix that matches this value exactly.

### Options

`value` *`value`*— Value of the match condition.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* authentication-route *id* condition user-identity range

### Syntax

```
shared sic group identifier server identifier authentication-route id condition user-
identity range {
     low low;
     high high;
}
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier authentication-route id condition user-
identity range]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the range of the match condition. Tested condition value in the user identity must be within this range.

### Options

`low` *`low`*—(Optional) Low range in text format.

**Value**—Text
**Editing Level**—Basic

`high` *`high`*—(Optional) High range in text format.

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* authentication-route *id* target

### Syntax

```
shared sic group identifier server identifier authentication-route id target {
     network-element network-element;
}
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier authentication-route id target]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure the target of the authentication route. The target is a network element. If this route is selected, packets are routed to this target.

### Options

`network-element` *`network-element`*— Name of the downstream network element you want to use as the authentication target. If this route is selected, packets are routed to this downstream authentication network element.

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* diameter identity

### Syntax

```
shared sic group identifier server identifier diameter identity {
     origin-host origin-host;
     origin-realm origin-realm;
}
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier diameter identity]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure the identity of the SIC Diameter server. The SIC includes a Diameter server. The SIC Diameter server communicates with the SRC Diameter server. These servers are peers. The SIC Diameter server provides the translation between the SAE and SIC by translating COA/DM requests into VSAs so that they can be understood by the NAS. The SRC Diameter server also passes the NAS routing information from the SAE to the SIC Diameter server.

### Options

`origin-host` *`origin-host`*— The Origin-Host makes up a portion of the SIC Diameter server identity. This value is sent in all Diameter requests originating on this server. The identity of the SIC Diameter server is preconfigured with the Origin-Host="your-host.your-realm.net" and the Origin-Realm="your-realm.net". You must reconfigure these settings for your network environment.

**Value**—Text
**Editing Level**—Basic

`origin-realm` *`origin-realm`*— The Origin-Realm makes up a portion of the SIC Diameter server identity. This value is sent in all Diameter requests originating on this server. The identity of the SIC Diameter server is pre-configured with the Origin-Host="your-host.your-realm.net" and the Origin-Realm="your-realm.net". You must reconfigure these settings for your network environment.

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* diameter transport

### Syntax

```
shared sic group identifier server identifier diameter transport id {
     protocol (tcp | sctp);
     port port;
}
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier diameter transport]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure the transport of the local Diameter server

### Options

`id` *`id`*— Transport name. Each transport must have a unique name.

**Value**—Text

`protocol (tcp | sctp)`—(Optional) Diameter messages are transported over TCP or SCTP.

**Value**

- `tcp`— Transport Control Protocol is used for the connection.
- `sctp`— Stream Control Transport Protocol is used for the connection.

**Default**— tcp
**Editing Level**—Basic

`port` *`port`*—(Optional) TCP or SCTP port number the SIC Diameter server listens on. Default value is set to 3870 as SRC Diameter uses 3868 and SRC IMS uses 3869 by default.

**Value**—Integer in the range 0–65535
**Default**— 3868
**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* logger

## Syntax

```
shared sic group identifier server identifier logger id ...
```

## Hierarchy Level

```
[edit shared sic group identifier server identifier logger]
```

## Release Information

Statement introduced in SRC Release 4.0.0

## Description

Configure the destination (log stream) for storing logging events. The SIC server uses log streams to store events. A log stream captures different groups of server-related events at various levels of granularity. You may configure the SIC server to capture any number of log streams. Each log stream saves events in a separate text file. Each text file is date stamped and can be assigned a prefix for easy identification. The log group specifies the type of server-related events to be captured. You configure the level of granularity to be captured for the log group by setting the event level for the group.

## Options

`id` *id*— Name used by the server to identify the log stream. If you configure multiple log streams, make sure to use unique names.

**Value**—Text

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* server *identifier* logger *id* file

### Syntax

```
shared sic group identifier server identifier logger id file {
     filter (/error | /debug-error);
     filename filename;
     maximum-file-size maximum-file-size;
     rollover-interval rollover-interval;
     rollover-on-startup;
     flush-after-writes;
     high-resolution-timestamps;
     header header;
     footer footer;
     prepend-message-header;
     work-id-label work-id-label;
     work-id-padding work-id-padding;
     utc;
}
```

### Hierarchy Level

`[edit shared sic group identifier server identifier logger id file]`

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the properties of the log stream file. Each log stream saves events in a separate text file. Each text file is date stamped and can be assigned a prefix for easy identification.

### Options

`filter (/error | /debug-error)`—(Optional) Filter to define which event messages are logged or ignored. The filter specifies the logging level, such as debug.

**Value**

- `/error`— Error events are captured for every log group
- `/debug-error`— Debug events are captured for every log group

**Editing Level**—Basic

`filename filename`— Prefix added to the log file name. This string is prepended to each log file name.

**Value**—Text
**Editing Level**—Basic

`maximum-file-size maximum-file-size`—(Optional) New log file created after this number of

bytes. When a log file reaches this size, a new log file begins.

**Value**—Integer in the range 0–10000000 bytes
**Default**— 0 (no limit)
**Editing Level**—Basic

`rollover-interval` *`rollover-interval`*—(Optional) New log file is created after this amount of time elapses. This interval is specified in seconds.

**Value**—Integer in the range 0–2147483647 s
**Default**— 86400
**Editing Level**—Basic

`rollover-on-startup`—(Optional) New log file is created every time the server starts.

**Default**— false
**Editing Level**—Basic

`flush-after-writes`—(Optional) Flush log after every write. This setting is set to true for real-time logging and can be set to false for performance optimization when real-time logging is not needed.

**Default**— true
**Editing Level**—Basic

`high-resolution-timestamps`—(Optional) High-resolution time-reporting system functions are used.

**Default**— false
**Editing Level**—Basic

`header` *`header`*—(Optional) Header message added to the beginning of each log file.

**Value**—Text
**Editing Level**—Basic

`footer` *`footer`*—(Optional) Footer message added to the end of each log file.

**Value**—Text
**Editing Level**—Basic

`prepend-message-header`—(Optional) Prepend each log message with additional information.

Add time, thread, and transaction information to each log message. You can achieve additional fine tuning by using the work-id-label, work-id-padding, and utc options.

**Default**— true
**Editing Level**—Basic

`work-id-label` *`work-id-label`*—(Optional) Work data ID prefix added to each log message.

**Value**—Text
**Editing Level**—Basic

`work-id-padding` *`work-id-padding`*—(Optional) String added to each log message if work data is not available.

**Value**—Text
**Editing Level**—Basic

`utc`—(Optional) Time and date values reflect Universal Time Coordinates (UTC), formerly known as Greenwich Mean Time or (GMT). Otherwise, values reflect local time.

**Default**— false
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* server *identifier* logger *id* group

### Syntax

```
shared sic group identifier server identifier logger id group (administration | configuration |
system | packet | packet-trace | packet-trace-raw) {
     events (error | warning | standard | detail | debug);
}
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier logger id group]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the event level for the log group. The log group specifies the type of server-related events captured in the log stream. The event level specifies the level of detail captured for the log group. First specify the name of the log group and then specify the event level for it. Repeat for each log group.

### Options

Log group for which to specify the event level. Log messages are divided into several log groups according to the subject of the log information. You may configure a log stream to display only log messages from particular log groups. The log group specifies the type of server-related events to be captured. You configure the level of granularity captured for the log group by setting the event level for the group.

#### Value

- `administration`— Log group reports events related to server administration, such as changes made to the server configuration, including identity of the administrator. Use the Detail event level to capture these events
- `configuration`— Log group reports events related to server configuration
- `system`— Log group reports events related to the system, such as system start and system stop
- `packet`— Log group reports events related to transaction processing, such as incoming and outgoing packets
- `packet-trace`— Log group displays contents of a packet. The format is attribute name:attribute value
- `packet-trace-raw`— Log group displays raw data (octets) of the incoming and outgoing packets

`events (error | warning | standard | detail | debug)`—(Optional) Highest event level for the log group. You may configure the log stream to display log items from levels at and below a particular event level. This is the highest event level displayed for this log group.

Be careful when using event logging because it consumes server resources while capturing events and consumes disk space to store the log files. We recommend that event logging be used primarily for

troubleshooting purposes. We recommend that you limit the amount of information captured in a log stream to control the consumption of server resources and disk space. This also makes it easier to interpret the information in the log files. For example, you might configure one log stream to capture only configuration-related events by setting the Configuration log group event level to Detail and setting all other log group event levels to Error.

**Value**

- `error`— Log displays messages at the "error" event-level. An error is defined as an event that may cause the system to operate incorrectly. Examples include exceptions being thrown, an inability to continue processing a transaction, or configuration errors that cause a component to fail to start
- `warning`— Log displays messages at the "error" and "warning" event-levels. Warnings are less severe than errors, in that a warning should be logged when the system is able to handle an unexpected input or condition without any threat to the operation of the server. Examples of warnings include invalid packet contents or failures in contacting remote servers
- `standard`— Log displays messages at the "error", "warning", and "standard event-levels. Standard logging messages show events as a result of normal operation
- `detail`— Log displays messages at the "error", "warning", "standard", and "detail" event-levels. Detail logging is intended to inform why and how the particular result indicated by standard logging is reached. Server components that perform significant processing on the transaction, such as determining the validity of the packet contents or log details about decisions they made. All server components that route the transaction through different processing based on the nature of the transaction log their routing activity at this level. The detail log also refers to the contents of messages logged at the standard level.
- `debug`— Log displays messages at the "error", "warning", "standard", "detail", and "debug" event-levels. Debug logging is provided for the benefit of engineering only

**Default**— standard
**Editing Level**—Basic

**Required Privilege Level**

system system

**Required Editing Level**

Basic

# shared sic group *identifier* server *identifier* outbound-transport

### Syntax

```
shared sic group identifier server identifier outbound-transport transport-name ...
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier outbound-transport]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the RADIUS outbound transport properties used by the server to send outbound requests to RADIUS targets over UDP.

### Options

`transport-name` *`transport-name`*— Name of the RADIUS outbound transport used by the server. Each RADIUS outbound transport must have a unique name.

**Value**—Text

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* outbound-transport *transport-name*

### Syntax

```
shared sic group identifier server identifier outbound-transport transport-name {
     address address;
}
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier outbound-transport transport-name]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the RADIUS outbound transport properties used by the server to send outbound requests to RADIUS targets over UDP.

### Options

`address` *`address`*—(Optional) IP address used by the server when sending outbound requests

**Value**—IP address
**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* server *identifier* transports

## Syntax

```
shared sic group identifier server identifier transports transport-name ...
```

## Hierarchy Level

```
[edit shared sic group identifier server identifier transports]
```

## Release Information

Statement introduced in SRC Release 4.0.0

## Description

Configure the RADIUS accounting transport for this server. RADIUS accounting transport is used to listen for accounting requests from RADIUS clients over UDP.

## Options

`transport-name` *`transport-name`*— Name of the RADIUS accounting transport for this server. Each RADIUS accounting transport must have a unique name.

**Value**—Text

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* server *identifier* transports *transport-name*

### Syntax

```
shared sic group identifier server identifier transports transport-name {
     address address;
}
```

### Hierarchy Level

```
[edit shared sic group identifier server identifier transports transport-name]
```

### Release Information

Statement introduced in SRC Release 4.0.0

### Description

Configure the RADIUS accounting transport for this server. RADIUS accounting transport is used to listen for accounting requests from RADIUS clients over UDP.

### Options

`address` *`address`*—(Optional) IP address used by the server for receiving UDP packets. The server listens for UDP RADIUS packets on this IP address.

**Value**—IP address
**Editing Level**—Basic

### Required Privilege Level

system system

### Required Editing Level

Basic

# shared sic group *identifier* snmp event

## Syntax

```
shared sic group identifier snmp event (sic-server-startup | sic-server-shutdown |
sic-server-unauthorized-administration-request | sic-server-internal-error | sic-
server-resource-failure | sic-server-log-file-failure | diameter-base-protocol-error |
diameter-transient-failure | diameter-permanent-failure | diameter-peer-connection-
down) {
     dilution-factor dilution-factor;
}
```

## Hierarchy Level

```
[edit shared sic group identifier snmp event]
```

## Release Information

Statement introduced in SRC Release 4.0.0

## Description

Configure SNMP events for which a trap is sent when the event occurs and configure the dilution factor.

## Options

Name of the SNMP trap for which you want to configure the dilution factor.

**Value**

- `sic-server-startup`— SNMP trap on server startup
- `sic-server-shutdown`— SNMP trap on server shutdown
- `sic-server-unauthorized-administration-request`— SNMP trap on unauthorized administration request
- `sic-server-internal-error`— SNMP trap on server internal error
- `sic-server-resource-failure`— SNMP trap on server resource failure
- `sic-server-log-file-failure`— SNMP trap on server log file failure
- `diameter-base-protocol-error`— Diameter base protocol error
- `diameter-transient-failure`— Diameter transient failure
- `diameter-permanent-failure`— Diameter permanent failure
- `diameter-peer-connection-down`— Diameter peer connection down

`dilution-factor` *`dilution-factor`*—(Optional) Dilution factor. Alert event dilution means that a particular alert is sent to the SNMP network management station once for every "n" occurrences of the condition that generated the alert. Dilution allows for a fine degree of control with respect to alert generation for certain warning and error conditions.

**Value**—Integer in the range 0–2147483647

**Default**— 1
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# shared sic group *identifier* transaction-manager

## Syntax

```
shared sic group identifier transaction-manager {
     maximum-number-of-variables maximum-number-of-variables;
}
```

## Hierarchy Level

```
[edit shared sic group identifier transaction-manager]
```

## Release Information

Statement introduced in SRC Release 4.0.0

## Description

Configure the number of transaction variables supported by the SIC group.

## Options

`maximum-number-of-variables` *`maximum-number-of-variables`*—(Optional) Maximum number of transactional variables supported by the SIC group.

**Value**—Integer in the range 0–2147483647
**Default**—255
**Editing Level**—Basic

## Required Privilege Level

system system

## Required Editing Level

Basic

# slot *number* sic initial directory-connection

## Syntax

```
slot number sic initial directory-connection {
     url url;
     port port;
     principal principal;
     credentials credentials;
     entry-dn entry-dn;
     filter filter;
}
```

## Hierarchy Level

```
[edit slot number sic initial directory-connection]
```

## Release Information

Statement introduced in SRC Release 4.0.0

## Description

Configure the directory connection properties that the SIC uses to connect to the Juniper Networks database.

## Options

`url` *`url`*— URL that identifies the location of the primary directory server.

**Value**—IP address
**Default**—127.0.0.1
**Editing Level**—Basic

`port` *`port`*—(Optional) Port on which the the directory server listens.

**Value**—Integer in the range 0–2147483647
**Default**—389
**Editing Level**—Basic

`principal` *`principal`*—(Optional) DN the SRC component uses for authentication to access the directory.

**Value**—Text
**Default**—cn=umcadmin,o=umc
**Editing Level**—Basic

`credentials` *`credentials`*— Password with which the SRC component accesses the directory.

**Value**—Secret text
**Editing Level**—Basic

`entry-dn` *`entry-dn`*—(Optional) Location of the SIC configuration in the directory.

**Value**—Text
**Default**—
l=SIC,ou=staticConfiguration,ou=Configuration,o=Management,o=umc
**Editing Level**—Basic

`filter` *`filter`*—(Optional) Filter the SIC uses to query the directory for recent configuration changes. Do not change this setting.

**Value**—Text
**Default**—(objectClass=*)
**Editing Level**—Basic

## Required Privilege Level

admin

## Required Editing Level

Basic

# slot *number* sic server

## Syntax

```
slot number sic server {
     name name;
}
```

## Hierarchy Level

```
[edit slot number sic server]
```

## Release Information

Statement introduced in SRC Release 4.0.0

## Description

Configure an instance of the SIC server.

## Options

`name` *`name`*—(Optional) Name of the SIC server referenced in the SIC shared configuration. e.g /group1/server1

The value is expected to be in the form of /group-name/server-name, where: "group-name" is the name of the shared group name in the Juniper Networks database and "server-name" is the server name specified under the shared group "group-name." If the supplied shared "group-name" does exist in the Juniper Networks database, a shared group is created and populated with sample data. If the supplied "server-name" does not exist under the supplied "group-name," a server with that "server-name" is created under supplied shared group and populated with sample data.

**Value**— /group-name/server-name
**Editing Level**—Basic

## Required Privilege Level

No specific privilege required.

## Required Editing Level

Basic

# show sic statistics diameter host

## Syntax

```
show sic statistics diameter host
```

## Release Information

Command introduced in SRC Release 4.2.0

## Description

Display Diameter host statistics, including server run-time statistics and global summary statistics.

## Required Privilege Level

view

# show sic statistics diameter peer

## Syntax

```
show sic statistics diameter peer <name name>
```

## Release Information

Command introduced in SRC Release 4.2.0

## Description

Display Diameter peer statistics. These statistics include:

- Connection-related statistics—Statistics related to the connection between the server and the peer.
- Request/Answer statistics—Statistics related to Diameter Request and Diameter Answer messages between the server and the peer.
- Packet error statistics—Statistics related to Diameter errors and message receipt failures.

## Options

`name` *`name`*—(Optional) Specify the name of the Diameter peer for which you want to display statistics; if omitted, statistics for all Diameter peers are displayed.

**Value**—Text

## Required Privilege Level

view

# show sic statistics radius client accounting

## Syntax

```
show sic statistics radius client accounting
```

## Release Information

Command introduced in SRC Release 4.0.0

## Description

Display RADIUS client statistics for accounting requests. Statistics are presented for any client from which the server has received packets.

## Required Privilege Level

view

# show sic statistics radius client authentication

## Syntax

```
show sic statistics radius client authentication <name name>
```

## Release Information

Command introduced in SRC Release 4.2.0

## Description

Display RADIUS client statistics for authentication requests. Statistics are presented for any client from which the server has received packets.

## Options

`name` *`name`*—(Optional) Specify the name of the RADIUS authentication client for which you want to display statistics; if omitted, statistics for all RADIUS authentication clients are displayed.

**Value**—Text

## Required Privilege Level

view

# show sic statistics radius host accounting

## Syntax

```
show sic statistics radius host accounting
```

## Release Information

Command introduced in SRC Release 4.0.0

## Description

Display RADIUS host statistics for accounting transactions, as well as server runtime statistics and packet error statistics.

## Required Privilege Level

view

# show sic statistics radius host authentication

## Syntax

```
show sic statistics radius host authentication
```

## Release Information

Command introduced in SRC Release 4.2.0

## Description

Display RADIUS host statistics for authentication transactions, as well as server runtime statistics and packet error statistics.

## Required Privilege Level

view

# show sic statistics radius target accounting

## Syntax

```
show sic statistics radius target accounting
```

## Release Information

Command introduced in SRC Release 4.0.0

## Description

Display RADIUS target statistics for accounting requests. Statistics are available for all RADIUS dynamic authorization and authentication targets that are defined in the server.

## Required Privilege Level

view

# show sic statistics radius target authentication

## Syntax

```
show sic statistics radius target authentication <host host>
```

## Release Information

Command introduced in SRC Release 4.2.0

## Description

Display RADIUS target statistics for authentication and dynamic authorization target requests. Statistics are available for all RADIUS authentication and dynamic authorization targets that are defined in the server.

## Options

`host` *`host`*—(Optional) Specify the IP address of the RADIUS authentication or dynamic authorization target for which you want to display statistics; if omitted, statistics for all RADIUS authentication and dynamic authorization targets are displayed.

**Value**—Text

## Required Privilege Level

view

# Volume Tracking Application

The following table summarizes the SRC command-line interface (SRC CLI) for Volume Tracking ApplicationConfiguration statements and operational commands are listed in alphabetical order.

| Volume Tracking Application |
| --- |
| Configuration Statements |
| shared vta |
| shared vta group |
| shared vta group name |
| shared vta group name action |
| shared vta group name action action-name parameter |
| shared vta group name action action-name parameter name |
| shared vta group name action action-name parameter substitution |
| shared vta group name api |
| shared vta group name database |
| shared vta group name database cleanup |
| shared vta group name database cleanup interval daily |
| shared vta group name database cleanup interval monthly |
| shared vta group name database cleanup interval weekly |
| shared vta group name event-handler |
| shared vta group name logger |
| shared vta group name logger name file |
| shared vta group name logger name syslog |
| shared vta group name processor db-engine |
| shared vta group name processor db-engine account-update-script |
| shared vta group name processor db-engine account |
| shared vta group name processor db-engine service |
| shared vta group name processor mailer |
| shared vta group name processor scripts |
| shared vta group name processor scripts external-script |
| shared vta group name processor scripts javascript |

| |
|---|
| shared vta group name queue |
| shared vta logger |
| shared vta logger name file |
| shared vta logger name syslog |
| shared vta nic-proxy-configuration |
| shared vta nic-proxy-configuration name cache |
| shared vta nic-proxy-configuration name nic-host-selection |
| shared vta nic-proxy-configuration name nic-host-selection blacklisting |
| shared vta nic-proxy-configuration name resolution |
| shared vta nic-proxy-configuration name test-nic-bindings |
| shared vta nic-proxy-configuration name test-nic-bindings key-values |
| shared vta test-events |
| shared vta test-events name attributes |
| shared vta test-events name callback-attributes |
| Operational Commands |
| monitor vta statistics |
| request vta delete balance-changes |
| request vta delete event-queue |
| request vta delete sessions |
| request vta delete subscriber |
| request vta terminate-sessions |
| request vta update-accounts |
| show vta accounts |
| show vta balance-changes |
| show vta sessions |
| show vta statistics performance |
| show vta statistics soap-api |
| test vta events |

# shared vta

## Syntax

```
shared vta {
}
```

## Hierarchy Level

```
[edit shared vta]
```

## Release Information

Statement introduced in SRC Release 4.2.0

## Required Privilege Level

system

## Required Editing Level

Basic

# shared vta group

## Syntax

`shared vta group` *`name`* `...`

## Hierarchy Level

`[edit shared vta group]`

## Release Information

Statement introduced in SRC Release 4.2.0

## Description

Configure a group of Volume Tracking Application (VTA) configuration properties.

## Options

`name` *`name`*— Name of an SRC VTA configuration.

**Value**—Text

## Required Privilege Level

system

## Required Editing Level

Basic

# shared vta group *name*

### Syntax

```
shared vta group name {
     nic-proxy nic-proxy;
     subscriber-id-solution (login-name | user-dn | interface-and-router | interface-
alias | interface-alias-and-router | mac-address | primary-user-name | nas-port-id-
and-router | accounting-id);
}
```

### Hierarchy Level

```
[edit shared vta group name]
```

`nic-proxy` *`nic-proxy`*—(Optional) Name of the NIC proxy to use. If you are using a NIC to map subscriber IDs to an SAE, and you select a subscriber-id-solution that provides a data key for the NIC, specify which NIC proxy uses that data key.

**Value**— Name of a NIC proxy configured under "shared vta nic-proxy-configuration"
**Editing Level**—Basic

`subscriber-id-solution (login-name | user-dn | interface-and-router | interface-alias | interface-alias-and-router | mac-address | primary-user-name | nas-port-id-and-router | accounting-id)`—(Optional) Subscriber attributes whose values are used to uniquely identify VTA accounts and sessions in the VTA database, to query the NIC, and to access subscribers via the SAE API.

**Value**— One of the following:

- login-name: DB: login name, NIC: login name, SAE: login name
- user-dn: DB: user DN, NIC: user DN, SAE: user DN
- interface-and-router: DB: intfName and routerName, NIC: routerName, SAE: intfName and routerName
- interface-alias: DB: intfAlias, NIC: none, SAE: none
- interface-alias-and-router: DB: intfAlias and routerName, NIC: none, SAE: none
- mac-address: DB: userMacAddr, NIC: none, SAE: none
- primary-user-name (PPP login or public DHCP name): DB: primaryUserName, NIC: none, SAE: primaryUserName
- nas-port-id-and-router: DB: nasPortId and routerName, NIC: none, SAE: none
- accounting-id: DB: acctId, NIC: acctId, SAE: User IP from NIC lookup

**Default**—LOGIN_NAME
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared vta group *name* action

## Syntax

```
shared vta group name action action-name {
     on-error (abort-event-processing | go-to-next-action | go-to-next-event-handler);

     function (db-engine-calculate-interim | db-engine-calculate-usage | db-engine-
get-accounts | db-engine-terminate-session | db-engine-update-accounts | mailer-send |
sae-set-interim-interval | sae-set-service-timeout | sae-set-user-timeout | sae-start-
service | sae-stop-service | scripts-run-javascript | scripts-run-external-script);
}
```

## Hierarchy Level

```
[edit shared vta group name action]
```

## Release Information

Statement introduced in SRC Release 4.2.0

## Description

Configure an action to be executed by an event handler in response to an event. For example, the action may update an account balance, start a service, or stop a service. You configure what action the event handler takes in response to an event when you configure an event handler. An action is performed only if an event matches the event type and condition specified in the event handler configuration. An action can invoke functions provided by any processor.

## Options

`action-name` *`action-name`*— Name of a VTA action.

**Value**—Text

`on-error (abort-event-processing | go-to-next-action | go-to-next-event-handler)`—(Optional) Next step to take if this action encounters an error.

**Value**

- `abort-event-processing`— Stop processing the current event.
- `go-to-next-action`— Continue to the next action, if any, in the same event handler.
- `go-to-next-event-handler`— Skip any remaining actions in the current event handler and proceed to the next event handler (if any).

**Editing Level**—Basic

`function (db-engine-calculate-interim | db-engine-calculate-usage | db-engine-get-accounts | db-engine-terminate-session | db-engine-update-accounts | mailer-send | sae-set-interim-interval | sae-set-service-timeout | sae-set-user-timeout | sae-start-service | sae-stop-service | scripts-run-javascript | scripts-run-external-script)`— Function that this action invokes.

**Value**

- `db-engine-calculate-interim`— Action invokes the db-engine-calculate-interim function.
- `db-engine-calculate-usage`— Action invokes the db-engine-calculate-usage function.
- `db-engine-get-accounts`— Action invokes the db-engine-get-accounts function.
- `db-engine-terminate-session`— Action invokes the db-engine-terminate-session function.
- `db-engine-update-accounts`— Action invokes the db-engine-update-accounts function.
- `mailer-send`— Action invokes the mailer-send function.
- `sae-set-interim-interval`— Action invokes the sae-set-interim-interval function.
- `sae-set-service-timeout`— Action invokes the sae-set-service-timeout function.
- `sae-set-user-timeout`— Action invokes the sae-set-user-timeout function.
- `sae-start-service`— Action invokes the sae-start-service function.
- `sae-stop-service`— Action invokes the sae-stop-service function.
- `scripts-run-javascript`— Action invokes the scripts-run-javascript function.
- `scripts-run-external-script`— Action invokes the scripts-run-external-script function.

**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared vta group *name* action *action-name* parameter

### Syntax

```
shared vta group name action action-name parameter {
     script-name script-name;
     recipient recipient;
     from from;
     subject subject;
     text text;
     subscription-name subscription-name;
     session-name session-name;
     current-subscriber-only;
     session-timeout session-timeout;
     persistent;
     reason (terminate-cause-undefined | user-request | lost-carrier | lost-service |
idle-timeout | session-timeout | admin-reset | admin-reboot | port-error | nas-error |
nas-request | nas-reboot | port-unneeded | port-preemted | port-suspended | service-
unavailable | callback | user-error | host-request);
}
```

### Hierarchy Level

```
[edit shared vta group name action action-name parameter]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Specify the parameters required by the chosen function.

### Options

`script-name` *`script-name`*—(Optional) Name of a script that exists under the processor "scripts".

**Value**—Text
**Editing Level**—Basic

`recipient` *`recipient`*—(Optional) Destination e-mail address.

**Value**—Text
**Editing Level**—Basic

`from` *`from`*—(Optional) Source e-mail address.

**Value**—Text

**Editing Level**—Basic

`subject` *`subject`*—(Optional) Subject of the e-mail.

**Value**—Text
**Editing Level**—Basic

`text` *`text`*—(Optional) Body of the e-mail.

**Value**—Text
**Editing Level**—Basic

`subscription-name` *`subscription-name`*—(Optional) Name of the SAE service subscription.

**Value**—Text
**Editing Level**—Basic

`session-name` *`session-name`*—(Optional) Name of the SAE service session.

**Value**—Text
**Editing Level**—Basic

`current-subscriber-only`—(Optional) Specifies whether the function is applied only to the subscriber identified in the event or to all subscribers who have the same subscriber ID. Set to True (default) to apply the function to the current subscriber only. Set to False to apply the function to all subscribers who have the same subscriber ID.

**Default**—true
**Editing Level**—Basic

`session-timeout` *`session-timeout`*—(Optional) SAE service session timeout.

**Value**—Integer in the range -9223372036854775808–9223372036854775807
**Editing Level**—Basic

`persistent`—(Optional) Make the SAE service session start or stop persistent across user sessions.

**Default**—false

**Editing Level**—Basic

`reason (terminate-cause-undefined | user-request | lost-carrier | lost-service | idle-timeout | session-timeout | admin-reset | admin-reboot | port-error | nas-error | nas-request | nas-reboot | port-unneeded | port-preemted | port-suspended | service-unavailable | callback | user-error | host-request)`—(Optional) RADIUS Acct-Terminate-Cause code to use when stopping an SAE service session.

**Value**

- `terminate-cause-undefined`— Cause for service termination is undefined.
- `user-request`— User requested termination of service, for example with LCP Terminate or by logging out.
- `lost-carrier`— DCD was dropped on the port.
- `lost-service`— Service can no longer be provided; for example, user's connection to a host was interrupted.
- `idle-timeout`— Idle timer expired.
- `session-timeout`— Maximum session length timer expired.
- `admin-reset`— Administrator reset the port or session.
- `admin-reboot`— Administrator is ending service on the NAS, for example prior to rebooting the NAS.
- `port-error`— NAS detected an error on the port which required ending the session.
- `nas-error`— NAS detected some error, other than on the port, which required ending the session.
- `nas-request`— NAS ended session for a non-error reason not otherwise listed here.
- `nas-reboot`— NAS ended the session in order to reboot non-administratively (crash).
- `port-unneeded`— NAS ended session because resource usage fell below low-water mark.
- `port-preemted`— NAS ended session in order to allocate the port to a higher priority use.
- `port-suspended`— NAS ended session to suspend a virtual session.
- `service-unavailable`— NAS was unable to provide requested service.
- `callback`— NAS is terminating current session in order to perform callback for a new session.
- `user-error`— Input from user is in error, causing termination of session.
- `host-request`— Login Host terminated session normally.

**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared vta group *name* action *action-name* parameter name

## Syntax

```
shared vta group name action action-name parameter name name {
     value value;
}
```

## Hierarchy Level

```
[edit shared vta group name action action-name parameter name]
```

## Release Information

Statement introduced in SRC Release 4.2.0

## Description

Specify any input parameters required for the function.

## Options

`name` *`name`*— Name of a script parameter.

**Value**—Text

`value` *`value`*—(Optional) Value to provide for the named script parameter.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared vta group *name* action *action-name* parameter substitution

## Syntax

```
shared vta group name action action-name parameter substitution name {
     value value;
}
```

## Hierarchy Level

```
[edit shared vta group name action action-name parameter substitution]
```

## Release Information

Statement introduced in SRC Release 4.2.0

## Description

Specify the parameter substitutions to use when a service is started or stopped.

## Options

`name` *`name`*— Name of a substitution to send to SAE when starting or stopping a service.

**Value**—Text

`value` *`value`*—(Optional) Value of a substitution to send to the SAE when starting or stopping a service.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared vta group *name* api

### Syntax

```
shared vta group name api {
     enable-soap-api;
     disable-client-authentication;
}
```

### Hierarchy Level

```
[edit shared vta group name api]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure the SOAP API.

### Options

`enable-soap-api`—(Optional) Deploy and expose the VTA's SOAP API.

**Default**—false
**Editing Level**—Basic

`disable-client-authentication`—(Optional) Disable security control for VTA API clients.

**Default**—true
**Editing Level**—Expert

### Required Privilege Level

system

### Required Editing Level

Basic

# shared vta group *name* database

## Syntax

```
shared vta group name database {
     driver-class driver-class;
     datasource-mapping datasource-mapping;
     connection-url connection-url;
     user-name user-name;
     password password;
     check-valid-connection-sql check-valid-connection-sql;
     min-pool-size min-pool-size;
     max-pool-size max-pool-size;
}
```

## Hierarchy Level

```
[edit shared vta group name database]
```

## Release Information

Statement introduced in SRC Release 4.2.0

## Description

Configure the connection to the database used to store VTA account and session data.

## Options

`driver-class` *`driver-class`*— Fully qualified Java class name for JDBC driver.

**Value**—Text
**Default**—com.mysql.jdbc.Driver
**Editing Level**—Basic

`datasource-mapping` *`datasource-mapping`*— Name of JDBC datasource mapping.

**Value**—Text
**Default**—mySQL
**Editing Level**—Basic

`connection-url` *`connection-url`*— URL used to connect to this VTA's database.

**Value**—Text
**Default**—jdbc:mysql://example.com:3306/vta-example
**Editing Level**—Basic

`user-name` *`user-name`*— Username used to connect to this VTA's database.

**Value**—Text
**Default**—vta
**Editing Level**—Basic

`password` *`password`*— Password used to connect to this VTA's database.

**Value**—Secret text
**Default**—vta
**Editing Level**—Basic

`check-valid-connection-sql` *`check-valid-connection-sql`*— SQL used to check if a database connection is still valid.

**Value**— SQL depends on the type of database server. For example, with Oracle you can use "select 1 from dual", and with MySQL or MS SQL Server you can use "select 1".
**Default**—select 1
**Editing Level**—Basic

`min-pool-size` *`min-pool-size`*— Minimum number of simultaneous connections to the database.

**Value**—Text
**Default**—5
**Editing Level**—Basic

`max-pool-size` *`max-pool-size`*— Maximum number of simultaneous connections to the database.

**Value**—Text
**Default**—50
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Basic

# shared vta group *name* database cleanup

## Syntax

```
shared vta group name database cleanup {
     vta-sessions-max-age vta-sessions-max-age;
     session-balance-changes-max-age session-balance-changes-max-age;
     host-ip host-ip;
     time-duration time-duration;
}
```

## Hierarchy Level

```
[edit shared vta group name database cleanup]
```

## Release Information

Statement introduced in SRC Release 4.2.0

## Description

Configure periodic clean up of the VTA database

## Options

`vta-sessions-max-age` *`vta-sessions-max-age`*—(Optional) Maximum number of months of data to retain in VTA_SESSION table: 1-24

**Value**—Integer in the range 1–24
**Editing Level**—Basic

`session-balance-changes-max-age` *`session-balance-changes-max-age`*—(Optional) Maximum number of months of data to retain in SESSION_BALANCE_CHANGE table: 1-24

**Value**—Integer in the range 1–24
**Editing Level**—Basic

`host-ip` *`host-ip`*— IP address or hostname of the VTA that performs cleanup

**Value**—IP address
**Editing Level**—Basic

`time-duration` *`time-duration`*—(Optional) Maximum duration in minutes for clean up operation: 30-900

**Value**—Integer in the range 30–900
**Default**— 60
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared vta group *name* database cleanup interval daily

## Syntax

```
shared vta group name database cleanup interval daily {
     hour hour;
     minute minute;
}
```

## Hierarchy Level

```
[edit shared vta group name database cleanup interval daily]
```

## Release Information

Statement introduced in SRC Release 4.2.0

## Description

Daily cleanup at the specified time

## Options

`hour` *`hour`*— Hour: 0-23

**Value**—Integer in the range 0–23
**Editing Level**—Basic

`minute` *`minute`*—(Optional) Minute: 0-59

**Value**—Integer in the range 0–59
**Default**— 0
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared vta group *name* database cleanup interval monthly

### Syntax

```
shared vta group name database cleanup interval monthly {
     day-of-month day-of-month;
     hour hour;
     minute minute;
}
```

### Hierarchy Level

```
[edit shared vta group name database cleanup interval monthly]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Monthly cleanup at the specified date and time

### Options

`day-of-month` *`day-of-month`*— Day of month: 1-31

**Value**—Integer in the range 1–31
**Editing Level**—Basic

`hour` *`hour`*— Hour: 0-23

**Value**—Integer in the range 0–23
**Editing Level**—Basic

`minute` *`minute`*—(Optional) Minute: 0-59

**Value**—Integer in the range 0–59
**Default**— 0
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Basic

# shared vta group *name* database cleanup interval weekly

### Syntax

```
shared vta group name database cleanup interval weekly {
     day-of-week day-of-week;
     hour hour;
     minute minute;
}
```

### Hierarchy Level

```
[edit shared vta group name database cleanup interval weekly]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Weekly cleanup at the specified day and time

### Options

`day-of-week` *`day-of-week`*— Day of week: 1-7 (1=Sunday) or SUN-SAT

**Value**—Text
**Editing Level**—Basic

`hour` *`hour`*— Hour: 0-23

**Value**—Integer in the range 0–23
**Editing Level**—Basic

`minute` *`minute`*—(Optional) Minute: 0-59

**Value**—Integer in the range 0–59
**Default**— 0
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Basic

# shared vta group *name* event-handler

## Syntax

```
shared vta group name event-handler event-handler-name {
     priority priority;
     events [events...];
     condition condition;
     actions [actions...];
}
```

## Hierarchy Level

```
[edit shared vta group name event-handler]
```

## Release Information

Statement introduced in SRC Release 4.2.0

## Description

Configure a VTA event handler. You can set up multiple event handlers to process events. When an event is received, the corresponding event type and condition configured for the event handler are evaluated based on the priority. When a condition is met, the corresponding actions are performed according to the event attributes.

## Options

`event-handler-name` *`event-handler-name`*— Name of the VTA event handler.

**Value**—Text

`priority` *`priority`*— Priority of event handler. The event handler with the lowest priority number sees the event before other event handlers with higher priority numbers.

**Value**—Integer in the range 0–1000
**Editing Level**—Basic

`events [`*`events`*`...]`—(Optional)

Types of events handled by event handler

Types of events including service and subscriber tracking events, account update events, and callback events

Only the specified events are handled by the event handler

You can configure the event handler to handle multiple types of events. Separate events

with a comma

The user can make use of the following wildcards while configuring service name in the event-handler

1. * -> Matches any substring
2. ? -> Matches any single character
3. [range] -> Matches a single character in the specified range which can be a-z or abcd or 0-9
4. [!range] -> Matches a single character outside the specified range

For Example: service-interim:Audio* . This will match the interim event of all services starting with Audio

**Value**—Text
**Editing Level**—Basic

`condition` *`condition`*—(Optional) Condition to be met. Each event handler evaluates conditions to determine whether it should handle the event. Specify conditions as a script written in the JavaScript programming language. If the script returns a value of True, the event handler performs the corresponding actions.

**Value**—Multi-line text
**Editing Level**—Basic

`actions [`*`actions`*`...]`— Actions to execute, in order, for each handled event. Actions are performed only if the event matches the specified event type and condition you configure for the event handler. An action can invoke functions provided by any processor.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared vta group *name* logger

## Syntax

`shared vta group` *`name`* `logger` *`name`* `...`

## Hierarchy Level

`[edit shared vta group` *`name`* `logger]`

## Release Information

Statement introduced in SRC Release 4.2.0

## Description

Create a logging configuration for the SRC Volume Tracking Application (SRC VTA).

## Options

`name` *`name`*— Name of the logging configuration.

**Value**—Text

## Required Privilege Level

system

## Required Editing Level

Basic

# shared vta group *name* logger *name* file

## Syntax

```
shared vta group name logger name file {
     filter filter;
     filename filename;
     rollover-filename rollover-filename;
     maximum-file-size maximum-file-size;
}
```

## Hierarchy Level

```
[edit shared vta group name logger name file]
```

## Release Information

Statement introduced in SRC Release 4.2.0

## Description

Configure logging of messages to a file.

`filter` *`filter`*—(Optional) Filter to define which event messages the software logs or ignores. Filters can specify the logging level, such as debug, or can specify expressions. For information about expressions, see the documentation that describes how to configure logging.

**Value**— Log filter
**Default**— Default value is different for each type of component.
**Editing Level**—Basic

`filename` *`filename`*— Absolute path of the filename that contains the current logs.

**Note:** Make sure that the user under which the J2EE application server, or Web application server runs, has write access to this folder. If the user does not have write access to the default folder, configure the component or application to write logs in folders to which the user has write access.

**Value**— Filename
**Default**— No value
**Editing Level**—Basic

`rollover-filename` *`rollover-filename`*—(Optional) Absolute path to the filename that contains the log history. When the log file reaches the maximum size, the software closes the log file and renames it with the name you specify for the rollover file. If a previous rollover file exists, the software overwrites it. The software then reopens the log file and continues to save event messages in it.

**Value**— Path of filename

Example—/opt/UMC/sae/var/log/sae.alt

**Default**— The default value is different for each type of component.
**Editing Level**—Normal

`maximum-file-size` *`maximum-file-size`*—(Optional) Maximum size of the log file and the rollover file.

Do not set the maximum file size to a value greater than the available disk space.

**Value**—Integer in the range 0–10000000 kbytes
**Default**— 1000000
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Basic

# shared vta group *name* logger *name* syslog

## Syntax

```
shared vta group name logger name syslog {
     filter filter;
     host host;
     facility facility;
     format format;
}
```

## Hierarchy Level

```
[edit shared vta group name logger name syslog]
```

## Release Information

Statement introduced in SRC Release 4.2.0

## Description

Configure logging of messages to a system logging facility.

`filter filter`—(Optional) Filter to define which event messages the software logs or ignores. Filters can specify the logging level, such as debug, or can specify expressions. For information about expressions, see the documentation that describes how to configure logging.

**Value**— Log filter
**Default**—/error-
**Editing Level**—Basic

`host host`— IP address or name of a host that collects event messages by means of a standard system logging daemon.

**Value**— IP address or hostname
**Default**—loghost
**Editing Level**—Basic

`facility facility`—(Optional) Type of system log in accordance with the system logging protocol.

**Value**—Integer in the range 0–23
**Default**— 3
**Editing Level**—Advanced

`format` *`format`*—(Optional) MessageFormat string that specifies how the information in an event message is printed. (The strings {#} are replaced with the log information [...]).

**Value**— MessageFormat string as specified in http://java.sun.com/j2se/1.4.2/docs/api/java/text/MessageFormat.html.

The fields available for events are:

- 0—Time and date of the event
- 1—Name of the thread generating the event
- 2—Text message of the event
- 3—Category of the event
- 4—Priority of the event

**Default**— None
**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Basic

# shared vta group *name* processor db-engine

## Syntax

```
shared vta group name processor db-engine {
     record-balance-change;
     sessions-terminated-frequently;
     session-history-depth session-history-depth;
}
```

## Hierarchy Level

```
[edit shared vta group name processor db-engine]
```

## Release Information

Statement introduced in SRC Release 4.2.0

## Description

Configure the db-engine processor. The SRC VTA uses the db-engine processor to update database and subscriber accounts. The db-engine processor works as a proxy to the external database. It calculates usage, updates account balances, retrieves account and active session data, and sets initial balances of subscriber accounts.

## Options

`record-balance-change`—(Optional) Record every account balance change in VTA database.

**Default**—false
**Editing Level**—Basic

`sessions-terminated-frequently`—(Optional) Optimize DB access to handle many terminated VTA sessions.

**Default**—false
**Editing Level**—Basic

`session-history-depth` *`session-history-depth`*—(Optional) Session history depth in hours. This is the number of past hours to examine when calculating the average usage rates and session lengths.

**Value**—Text
**Editing Level**—Expert

## Required Privilege Level

system

## Required Editing Level

Basic

# shared vta group *name* processor db-engine account-update-script

## Syntax

```
shared vta group name processor db-engine account-update-script name {
     script script;
}
```

## Hierarchy Level

```
[edit shared vta group name processor db-engine account-update-script]
```

## Release Information

Statement introduced in SRC Release 4.2.0

## Description

Configure a sript that updates accounts. You can set up scripts to update balances in the accounts from which the usage of a service is charged and update accounts by assigning values to variables for the account balances.

## Options

`name` *`name`*— Name of script that updates VTA accounts.

**Value**—Text

`script` *`script`*— Script that updates VTA accounts.

**Value**—Multi-line text
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared vta group *name* processor db-engine account

### Syntax

```
shared vta group name processor db-engine account name {
     initial-balance initial-balance;
     initial-status initial-status;
}
```

### Hierarchy Level

```
[edit shared vta group name processor db-engine account]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure the initial settings of all newly created VTA accounts.

### Options

`name` *`name`*— Name of a VTA database account.

**Value**—Text

`initial-balance` *`initial-balance`*— Set initial balance of new accounts to this value.

**Value**—Integer in the range -9223372036854775808–9223372036854775807
**Editing Level**—Basic

`initial-status` *`initial-status`*— Set initial status of new accounts to this value.NOTE: DO NOT set this value to NO_INIT, in which case, new VTA accounts are not created

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system

## Required Editing Level

Basic

# shared vta group *name* processor db-engine service

## Syntax

```
shared vta group name processor db-engine service name {
     usage-metric-function usage-metric-function;
     interim-interval-function interim-interval-function;
}
```

## Hierarchy Level

```
[edit shared vta group name processor db-engine service]
```

## Release Information

Statement introduced in SRC Release 4.2.0

## Description

Configure the db-engine processor to manage a service.

## Options

`name` *`name`*— Name of an SAE service.

**Value**—Text

`usage-metric-function` *`usage-metric-function`*—(Optional) Script that returns the usage of this service.

**Value**—Multi-line text
**Editing Level**—Basic

`interim-interval-function` *`interim-interval-function`*—(Optional) Script that returns desired interim accounting interval.

**Value**—Multi-line text
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared vta group *name* processor mailer

## Syntax

```
shared vta group name processor mailer {
     smtp-server smtp-server;
     smtp-server-port smtp-server-port;
     smtp-server-user smtp-server-user;
     smtp-server-password smtp-server-password;
}
```

## Hierarchy Level

```
[edit shared vta group name processor mailer]
```

## Release Information

Statement introduced in SRC Release 4.2.0

## Description

Configure the mailer processor. You can use the functions provided by the mailer processor to set up the SRC VTA to send e-mail notifications when certain events occur. You can specify that e-mail notifications be sent to anyone, for example, subscribers, system administrators, or an automated billing system.

## Options

`smtp-server` *`smtp-server`*— SMTP server used for outgoing e-mail. Specify the host name or IP address of the SMTP server.

**Value**—Text
**Editing Level**—Basic

`smtp-server-port` *`smtp-server-port`*—(Optional) Port used to connect to the SMTP server.

**Value**—Text
**Editing Level**—Basic

`smtp-server-user` *`smtp-server-user`*—(Optional) User name for SMTP server authentication.

**Value**—Text
**Editing Level**—Basic

`smtp-server-password` *`smtp-server-password`*—(Optional) Password for SMTP server authentication.

**Value**—Secret text
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared vta group *name* processor scripts

## Syntax

```
shared vta group name processor scripts {
}
```

## Hierarchy Level

```
[edit shared vta group name processor scripts]
```

## Release Information

Statement introduced in SRC Release 4.2.0

## Description

Configure the processor that executes scripts.

## Required Privilege Level

system

## Required Editing Level

Basic

# shared vta group *name* processor scripts external-script

### Syntax

```
shared vta group name processor scripts external-script name {
     full-path full-path;
     parameters [parameters...];
     return-type (Integer | Long | Float | Double | String | Boolean);
     return-attribute return-attribute;
}
```

### Hierarchy Level

```
[edit shared vta group name processor scripts external-script]
```

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Configure the scripts processor to run an an external script. External scripts are executable programs, such as shell scripts, that are available on the SRC VTA host. Each external script can perform a task and return a value. If the script returns a value, the value can be added to the current event as an event attribute.

### Options

`name` *`name`*— Name of an external script.

**Value**—Text

`full-path` *`full-path`*— Absolute path to executable file containing the script.

**Value**—Text
**Editing Level**—Basic

`parameters [`*`parameters`*`...]`— Ordered list of parameter names required by the script.

**Value**—Text
**Editing Level**—Basic

`return-type (Integer | Long | Float | Double | String | Boolean)`—(Optional) Type of the value returned by this script.

**Value**

- `Integer`—
- `Long`—
- `Float`—
- `Double`—
- `String`—
- `Boolean`—

**Editing Level**—Basic

`return-attribute` *`return-attribute`*—(Optional) Event attribute in which to store script's return value.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared vta group *name* processor scripts javascript

## Syntax

```
shared vta group name processor scripts javascript name {
     script script;
     return-type (Integer | Long | Float | Double | String | Boolean);
     return-attribute return-attribute;
}
```

## Hierarchy Level

```
[edit shared vta group name processor scripts javascript]
```

## Release Information

Statement introduced in SRC Release 4.2.0

## Description

Configure the scripts processor to run a JavaScript program. JavaScript programs are used to process attributes of a VTA event and can also be used for any arbitrary purpose, just like external scripts. For example, it can convert a VTA event attribute in a timestamp to a date string and add it to the event as a new attribute. The attribute can then be used for subsequent actions, such as sending an e-mail notification to the subscriber. The JavaScript program can refer to any attributes of the event being processed, and it must return a value.

## Options

`name` *`name`*— Name of JavaScript script.

**Value**—Text

`script` *`script`*— Script written in the JavaScript programming language.

**Value**—Multi-line text
**Editing Level**—Basic

`return-type (Integer | Long | Float | Double | String | Boolean)`—(Optional) Type of value returned by this script.

**Value**

- `Integer`—
- `Long`—
- `Float`—
- `Double`—

`String`—
- `Boolean`—

**Editing Level**—Basic

`return-attribute` *`return-attribute`*—(Optional) Event attribute in which to store script's return value.

**Value**—Text
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Basic

# shared vta group *name* queue

## Syntax

```
shared vta group name queue {
     persistent;
     max-concurrency max-concurrency;
}
```

## Hierarchy Level

```
[edit shared vta group name queue]
```

## Release Information

Statement introduced in SRC Release 4.2.0

## Description

Configure a VTA event queue.

## Options

`persistent`—(Optional) Locate a VTA event queue on disk, rather than in memory. If set, events that this VTA holds in its JMS queue while they await processing will be persistent; that is, they should survive a server restart.

**Default**—false
**Editing Level**—Basic

`max-concurrency` *`max-concurrency`*—(Optional) Maximum number of threads consuming events from the queue and passing them to the configured event handlers.

**Value**—Integer in the range -2147483648–2147483647
**Default**—100
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared vta logger

### Syntax

`shared vta logger` *`name`* `...`

### Hierarchy Level

`[edit shared vta logger]`

### Release Information

Statement introduced in SRC Release 4.2.0

### Description

Create a logging configuration for the SRC Volume Tracking Application (SRC VTA).

### Options

`name` *`name`*— Name of the logging configuration.

**Value**—Text

### Required Privilege Level

system

### Required Editing Level

Basic

# shared vta logger *name* file

## Syntax

```
shared vta logger name file {
     filter filter;
     filename filename;
     rollover-filename rollover-filename;
     maximum-file-size maximum-file-size;
}
```

## Hierarchy Level

```
[edit shared vta logger name file]
```

## Release Information

Statement introduced in SRC Release 4.2.0

## Description

Configure logging of messages to a file.

`filter` *`filter`*—(Optional) Filter to define which event messages the software logs or ignores. Filters can specify the logging level, such as debug, or can specify expressions. For information about expressions, see the documentation that describes how to configure logging.

**Value**— Log filter
**Default**— Default value is different for each type of component.
**Editing Level**—Basic

`filename` *`filename`*— Absolute path of the filename that contains the current logs.

**Note:** Make sure that the user under which the J2EE application server, or Web application server runs, has write access to this folder. If the user does not have write access to the default folder, configure the component or application to write logs in folders to which the user has write access.

**Value**— Filename
**Default**— No value
**Editing Level**—Basic

`rollover-filename` *`rollover-filename`*—(Optional) Absolute path to the filename that contains the log history. When the log file reaches the maximum size, the software closes the log file and renames it with the name you specify for the rollover file. If a previous rollover file exists, the software overwrites it. The software then reopens the log file and continues to save event messages in it.

**Value**— Path of filename

Example—/opt/UMC/sae/var/log/sae.alt

**Default**— The default value is different for each type of component.
**Editing Level**—Normal

`maximum-file-size` *`maximum-file-size`*—(Optional) Maximum size of the log file and the rollover file.

Do not set the maximum file size to a value greater than the available disk space.

**Value**—Integer in the range 0–10000000 kbytes
**Default**— 1000000
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Basic

# shared vta logger *name* syslog

## Syntax

```
shared vta logger name syslog {
     filter filter;
     host host;
     facility facility;
     format format;
}
```

## Hierarchy Level

```
[edit shared vta logger name syslog]
```

## Release Information

Statement introduced in SRC Release 4.2.0

## Description

Configure logging of messages to a system logging facility.

`filter` *`filter`*—(Optional) Filter to define which event messages the software logs or ignores. Filters can specify the logging level, such as debug, or can specify expressions. For information about expressions, see the documentation that describes how to configure logging.

**Value**— Log filter
**Default**—/error-
**Editing Level**—Basic

`host` *`host`*— IP address or name of a host that collects event messages by means of a standard system logging daemon.

**Value**— IP address or hostname
**Default**—loghost
**Editing Level**—Basic

`facility` *`facility`*—(Optional) Type of system log in accordance with the system logging protocol.

**Value**—Integer in the range 0–23
**Default**— 3
**Editing Level**—Advanced

`format` *`format`*—(Optional) MessageFormat string that specifies how the information in an event message is printed. (The strings {#} are replaced with the log information [...]).

**Value**— MessageFormat string as specified in http://java.sun.com/j2se/1.4.2/docs/api/java/text/MessageFormat.html.

The fields available for events are:

- 0—Time and date of the event
- 1—Name of the thread generating the event
- 2—Text message of the event
- 3—Category of the event
- 4—Priority of the event

**Default**— None
**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Basic

# shared vta nic-proxy-configuration

## Syntax

```
shared vta nic-proxy-configuration name {
}
```

## Hierarchy Level

```
[edit shared vta nic-proxy-configuration]
```

## Release Information

Statement introduced in SRC Release 4.2.0

## Description

Configure the NIC proxy configuration for the SRC VTA.

## Options

`name` *`name`*— Name of the NIC proxy configuration.

**Value**—Text

## Required Privilege Level

system

## Required Editing Level

Basic

# shared vta nic-proxy-configuration *name* cache

### Syntax

```
shared vta nic-proxy-configuration name cache {
     cache-size cache-size;
     cache-cleanup-interval cache-cleanup-interval;
     cache-entry-age cache-entry-age;
}
```

### Hierarchy Level

```
[edit shared vta nic-proxy-configuration name cache]
```

### Description

Configure the NIC proxy cache properties. You can modify cache properties for the NIC proxy to optimize the resolution performance for your network configuration and system resources. Typically, you can use the default settings for the cache properties.

`cache-size` *`cache-size`*—(Optional) Maximum size of the cache in which the NIC proxy retains data. If you decrease the cache size or disable the cache while the NIC proxy is running, the NIC proxy removes entries in order of descending age until the cache size meets the new limit.

**Value**— Integer in the range 0–2147483647
**Default**—10000
**Editing Level**—Advanced

`cache-cleanup-interval` *`cache-cleanup-interval`*— Time interval at which the NIC proxy removes expired entries from its cache.

**Value**— Number of seconds in the range 5–2147483
**Default**—15
**Editing Level**—Advanced

`cache-entry-age` *`cache-entry-age`*—(Optional) Maximum time that the NIC proxy can cache an entry. The NIC proxy compares this property with the life expectancy of each entry and uses the lower value to determine when to remove the entry.

**Value**— Number of seconds in the range 0–4294967295

- 0 or unspecified—Life expectancy of the data, which determines expiration of data
- Other values—Actual time that the NIC proxy caches entries

**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Advanced

# shared vta nic-proxy-configuration *name* nic-host-selection

### Syntax

```
shared vta nic-proxy-configuration name nic-host-selection {
     groups [groups...];
     selection-criteria (roundRobin | randomPick | priorityList);
}
```

### Hierarchy Level

```
[edit shared vta nic-proxy-configuration name nic-host-selection]
```

### Description

Configure the mechanism that a NIC proxy uses to select NIC system if multiple systems are available. You use NIC host selection when you use NIC replication.

`groups [groups...]`—(Optional) List of groups of NIC hosts that the NIC proxy can contact for resolution requests.

**Value**— Names of groups.
**Default**— No value
**Editing Level**—Normal

`selection-criteria (roundRobin | randomPick | priorityList)`— Selection criteria that the NIC proxy uses to determine which NIC host to contact. Configure selection criteria if you configure more than one group.

**Value**— One of the following criteria:

- roundRobin—NIC proxy selects NIC hosts in a fixed, cyclic order. The NIC proxy always selects the next host in the list.
- randomPick—NIC proxy selects NIC hosts randomly from the list.
- priorityList—NIC proxy selects NIC hosts according to their assigned priorities in the list. If the host with the highest priority in the list is not available, the NIC proxy tries the host with the next-highest priority, and so on.

Use round-robin or random pick to distribute resolution requests among NIC hosts. Use priority list if you prefer to use a particular NIC host; for example, you may reduce operating cost by using a local NIC host.
**Default**— roundRobin
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Normal

# shared vta nic-proxy-configuration *name* nic-host-selection blacklisting

### Syntax

```
shared vta nic-proxy-configuration name nic-host-selection blacklisting {
     try-next-system-on-error;
     number-of-retries-before-blacklisting number-of-retries-before-blacklisting;
     blacklist-retry-interval blacklist-retry-interval;
}
```

### Hierarchy Level

```
[edit shared vta nic-proxy-configuration name nic-host-selection blacklisting]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure how to handle nonresponsive NIC hosts. When a NIC host does not respond, it is blacklisted which means that other NIC hosts are contacted until the blacklisted host becomes available again.

### Options

`try-next-system-on-error`—(Optional) Specifies whether or not the NIC proxy should contact the next specified NIC host if a NIC host is determined to be unavailable. Configure this property only if you configure more than one group.

**Default**—true
**Editing Level**—Normal

`number-of-retries-before-blacklisting` *`number-of-retries-before-blacklisting`*— Number of times the NIC proxy tries to communicate with a NIC host before the NIC proxy stops communicating with the NIC host for a period of time.

**Value**—Integer in the range 0–2147483647
**Default**—3
**Editing Level**—Normal

`blacklist-retry-interval` *`blacklist-retry-interval`*— Interval at which the NIC proxy attempts to connect to an unavailable NIC host.

**Value**—Integer in the range 15–2147483647 s
**Default**—15

**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Basic

# shared vta nic-proxy-configuration *name* resolution

### Syntax

```
shared vta nic-proxy-configuration name resolution {
     resolver-name resolver-name;
     key-type key-type;
     value-type value-type;
     expect-multiple-values;
     constraints constraints;
}
```

### Hierarchy Level

```
[edit shared vta nic-proxy-configuration name resolution]
```

### Description

Configure properties for a NIC proxy (NIC locator), the NIC component that requests information on behalf of an application.

`resolver-name` *`resolver-name`*— NIC resolver that the NIC proxy uses. This resolver must be the same as one that is configured on the NIC host.

**Value**— Path to the NIC resolver.

Example—/realms/ip/A1,/realms/dn/A1.

**Default**— No value
**Editing Level**—Basic

`key-type` *`key-type`*— Type of data used that the key provides for the NIC resolution. You can provide a qualifier to a data type to distinguish between different instances of a data type in a resolution scenario, or to provide information about a data type to clarify the use of that data type in a resolution.

**Value**— One of the following types:

- Ip—Subscriber's IP address
- Vr—Virtual router
- Interface—Name of router's interface
- InterfaceId—Identifier of an interface on the router
- Dn—LDAP distinguished name for subscriber
- LoginName—Subscriber login ID
- AnyString—Other information

To qualify data types, enter a qualifier within parentheses.

Example—LoginName(username).

**Default**— No value
**Editing Level**—Basic

`value-type` *`value-type`*— Type of value to be returned in the resolution. The value type varies according to the application that uses the NIC proxy.

**Value**— One of the following types:

- SaeId—SAE server ID
- LoginName—Subscriber login ID
- AnyString—Other information

To qualify data types, enter a qualifier within parentheses.

Example—LoginName(username).

**Default**— No value
**Editing Level**—Basic

`expect-multiple-values`—(Optional) Specifies whether or not the key can have multiple corresponding values.

**Editing Level**—Basic

`constraints` *`constraints`*—(Optional) Data type that a resolver uses during the resolution process. A constraint represents a condition that must or may be satisfied before the next stage of the resolution process can proceed.

Configure a constraint only if the constraint will be provided by the application in the resolution request. Typically, you do not need to configure constraints.

**Value**— Data types of constraints specified for the NIC resolution. Separate data types with commas.
**Default**— No value
**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Normal

# shared vta nic-proxy-configuration *name* test-nic-bindings

### Syntax

```
shared vta nic-proxy-configuration name test-nic-bindings {
     use-test-bindings;
}
```

### Hierarchy Level

```
[edit shared vta nic-proxy-configuration name test-nic-bindings]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure key-value mappings to be used to test a NIC resolution.

### Options

`use-test-bindings`—(Optional) Test the NIC resolutions without having to configure or run a NIC host. The values returned are those configured in the key-values property.

**Default**—false
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Basic

# shared vta nic-proxy-configuration *name* test-nic-bindings key-values

## Syntax

```
shared vta nic-proxy-configuration name test-nic-bindings key-values name {
     value;
}
```

## Hierarchy Level

```
[edit shared vta nic-proxy-configuration name test-nic-bindings key-values]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure keys and associated values to use for testing. Define all of values to be returned for specified keys.

## Options

`name` *`name`*— Name of the key.

**Value**—Text

*`value`*— Value of the key.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Advanced

# shared vta test-events

## Syntax

```
shared vta test-events name {
     type type;
}
```

## Hierarchy Level

```
[edit shared vta test-events]
```

## Release Information

Statement introduced in SRC Release 4.2.0

## Description

Configure a test event for the SRC VTA.

## Options

`name` *`name`*— Name of the test event.

**Value**—Text

`type` *`type`*—(Optional) Type of simulated event.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared vta test-events *name* attributes

## Syntax

```
shared vta test-events name attributes name {
     value;
}
```

## Hierarchy Level

```
[edit shared vta test-events name attributes]
```

## Release Information

Statement introduced in SRC Release 4.2.0

## Description

Specify the attributes that are sent to the VTA in the test event.

## Options

`name` *`name`*— Name of the attribute to assign a value to.

**Value**—Text

*`value`*— Value of the attribute.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared vta test-events *name* callback-attributes

## Syntax

```
shared vta test-events name callback-attributes name {
     value value;
     type (boolean | long | integer | double | float | string);
}
```

## Hierarchy Level

```
[edit shared vta test-events name callback-attributes]
```

## Release Information

Statement introduced in SRC Release 4.2.0

## Description

Specify the callback attributes that are sent to the VTA in the test event.

## Options

`name` *`name`*— Name of the attribute to assign a value to.

**Value**—Text

`value` *`value`*— Value of the attribute.

**Value**—Text
**Editing Level**—Basic

`type (boolean | long | integer | double | float | string)`— Type of the attribute.

**Value**

- `boolean`—
- `long`—
- `integer`—
- `double`—
- `float`—
- `string`—

**Default**—string
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# monitor vta statistics

### Syntax

```
monitor vta statistics group group <action action> <event-handler event-handler>
<event-queue> <interval interval>
```

### Release Information

Command introduced in SRC Release 4.8.0

### Description

Display VTA event-queue/event-handler/action statistics

### Options

`group` *`group`*— Name of a VTA group

**Value**—Text

`action` *`action`*—(Optional) Action Statistics for a given Action. Pressing "a" allows to traverse to the next action

**Value**—Text
**Default**—

`event-handler` *`event-handler`*—(Optional) Event-handler Statistics for a given Event-handler.Pressing "e" allows to traverse to the next Event-handler

**Value**—Text
**Default**—

`event-queue`—(Optional) Event-queue Statistics for corresponding VTA group is displayed.

**Default**—false

`interval` *`interval`*—(Optional) Frequency for refreshing the VTA statistics"

**Value**—Integer in the range 1–2147483647 s
**Default**—5

## Required Privilege Level

view

# request vta delete balance-changes

## Syntax

`request vta delete balance-changes group` *`group`* `before` *`before`*

## Release Information

Command introduced in SRC Release 4.2.0

## Description

Delete balance change history.

## Options

`group` *`group`*— Name of VTA group.

**Value**—Text

`before` *`before`*— Delete balance changes with a timestamp earlier than this date (YYYY-MM-DD).

**Value**—Text

## Required Privilege Level

maintenance

# request vta delete event-queue

## Syntax

`request vta delete event-queue group` *`group`*

## Release Information

Command introduced in SRC Release 4.3.0

## Description

Delete the VTA's event queue from the local application server

## Options

`group` *`group`*— Name of VTA group

**Value**—Text

## Required Privilege Level

maintenance

# request vta delete sessions

## Syntax

`request vta delete sessions group` *`group`* `before` *`before`* `<force-delete>`

## Release Information

Command introduced in SRC Release 4.2.0

## Description

Delete session history.

## Options

`group` *`group`*— Name of VTA group.

**Value**—Text

`before` *`before`*— Delete all stopped sessions, and all closed sessions that are subsequently stopped, if they have a last update time earlier than this date (YYYY-MM-DD).

**Value**—Text

`force-delete`—(Optional) Delete all the specified sessions, even if it makes the resulting data inconsistent.

**Default**—false

## Required Privilege Level

maintenance

# request vta delete subscriber

## Syntax

```
request vta delete subscriber group group subscriber-id subscriber-id <force-delete>
```

## Release Information

Command introduced in SRC Release 4.2.0

## Description

Delete subscriber accounts and history.

## Options

`group` *`group`*— Name of VTA group.

**Value**—Text

`subscriber-id` *`subscriber-id`*— ID used by the VTA to identify the subscriber.

**Value**—Text

`force-delete`—(Optional) Delete the specified subscriber's accounts and sessions, even if they are not marked as closed and stopped.

**Default**—false

## Required Privilege Level

maintenance

# request vta terminate-sessions

## Syntax

`request vta terminate-sessions group` *`group`* `subscriber-id` *`subscriber-id`*

## Release Information

Command introduced in SRC Release 4.2.0

## Description

Generate a terminate sessions event.

## Options

`group` *`group`*— Name of VTA group.

**Value**—Text

`subscriber-id` *`subscriber-id`*— Terminate sessions of this subscriber.

**Value**—Text

## Required Privilege Level

maintenance

# request vta update-accounts

## Syntax

```
request vta update-accounts group group <subscriber-id subscriber-id> account-name
account-name <account-status account-status> <new-status new-status> <new-balance new-
balance> <balance-change balance-change> <balance-change-description balance-change-
description> <terminate-sessions>
```

## Release Information

Command introduced in SRC Release 4.2.0

## Description

Update subscriber accounts.

## Options

`group` *`group`*— Name of VTA group.

**Value**—Text

`subscriber-id` *`subscriber-id`*—(Optional) Subscriber ID to modify. Update only VTA accounts with this subscriber ID.

**Value**—Text

`account-name` *`account-name`*— VTA account name to modify. Update only VTA accounts with this name.

**Value**—Text

`account-status` *`account-status`*—(Optional) Account status, update only VTA accounts with this status.

**Value**—Text

`new-status` *`new-status`*—(Optional) Set account status to this new value.

**Value**—Text

`new-balance` *`new-balance`*—(Optional) Set account balance to this value.

**Value**—Text

`balance-change` *`balance-change`*—(Optional) Change account balance by this amount.

**Value**—Text

`balance-change-description` *`balance-change-description`*—(Optional) Description of the balance change.

**Value**—Text

`terminate-sessions`—(Optional) Generate a Callback:TERMINATESESSION event for each subscriber.

## Required Privilege Level

maintenance

# show vta accounts

## Syntax

`show vta accounts group` *`group`* `subscriber-id` *`subscriber-id`* `<account-name` *`account-name`*`>`

## Release Information

Command introduced in SRC Release 4.2.0

## Description

Display subscriber accounts.

## Options

`group` *`group`*— Name of VTA group.

**Value**—Text

`subscriber-id` *`subscriber-id`*— ID used by the VTA to identify the subscriber.

**Value**—Text

`account-name` *`account-name`*—(Optional) Name of VTA account. Display only the VTA accounts with this name.

**Value**—Text

## Required Privilege Level

view

# show vta balance-changes

### Syntax

```
show vta balance-changes group group subscriber-id subscriber-id <account-name
account-name> <from from> <to to>
```

### Release Information

Command introduced in SRC Release 4.2.0

### Description

Display subscriber accounts including balance changes.

### Options

`group` *`group`*— Name of VTA group.

**Value**—Text

`subscriber-id` *`subscriber-id`*— ID used by the VTA to identify the subscriber.

**Value**—Text

`account-name` *`account-name`*—(Optional) Name of the VTA account. Display only the VTA account with this name.

**Value**—Text

`from` *`from`*—(Optional) From date. Display only changes on or after this date. Use format YYYY-MM-DD. Defaults to 6 days ago.

**Value**—Text

`to` *`to`*—(Optional) To date. Display only changes on or before this date. Use format YYYY-MM-DD.

**Value**—Text

### Required Privilege Level

view

# show vta sessions

### Syntax

```
show vta sessions group group subscriber-id subscriber-id <from from> <to to> <
(terse) >
```

### Release Information

Command introduced in SRC Release 4.2.0

### Description

Display information about subscriber sessions.

### Options

`group` *`group`*— Name of VTA group.

**Value**—Text

`subscriber-id` *`subscriber-id`*— ID used by the VTA to identify the subscriber.

**Value**—Text

`from` *`from`*—(Optional) From date. Display only changes on or after this date. Use format YYYY-MM-DD. Defaults to 6 days ago.

**Value**—Text

`to` *`to`*—(Optional) To date. Display only changes on or before this date. Use format YYYY-MM-DD.

**Value**—Text

(Optional) Output style

**Value**

- `terse`— Subscriber ID, Session ID, Status, Up and Down bytes.

**Default**— Brief

## Required Privilege Level

view

# show vta statistics performance

## Syntax

```
show vta statistics performance group group <event-queue> <event-handlers event-handlers> <actions actions>
```

## Release Information

Command introduced in SRC Release 4.2.0

## Description

Display VTA performance statistics.

## Options

`group` *`group`*— Name of VTA group.

**Value**—Text

`event-queue`—(Optional) Displays the Event Queue Statistics

**Default**—false

`event-handlers` *`event-handlers`*—(Optional) Displays the Event Handlers Statistics

**Value**—Text

`actions` *`actions`*—(Optional) Displays the Action Statistics

**Value**—Text

## Required Privilege Level

view

# show vta statistics soap-api

### Syntax

`show vta statistics soap-api group` *`group`*

### Release Information

Command introduced in SRC Release 4.2.0

### Description

Display VTA SOAP API statistics.

### Options

`group` *`group`*— Name of VTA group.

**Value**—Text

### Required Privilege Level

view

# test vta events

## Syntax

`test vta events subscriber-id` *`subscriber-id`* `event-name` *`event-name`*

## Release Information

Command introduced in SRC Release 4.2.0

## Description

Simulate VTA events for a subscriber.

## Options

`subscriber-id` *`subscriber-id`*— ID used by the VTA to identify the subscriber.

**Value**—Text

`event-name` *`event-name`*— Name of a test event object defined under shared vta test-events.

**Value**—Text

## Required Privilege Level

maintenance

# SNMP Agent

The following table summarizes the SRC command-line interface (SRC CLI) for configuring the SNMP Agent. Configuration statements and operational commands are listed in alphabetical order.

| SNMP Agent |
| --- |
| Configuration Statements |
| snmp |
| snmp agent |
| snmp agent initial |
| snmp agent initial directory-connection |
| snmp agent initial directory-eventing |
| snmp agent java |
| snmp agent logger |
| snmp agent logger name file |
| snmp agent logger name syslog |
| snmp community |
| snmp monitor |
| snmp monitor alarm |
| snmp monitor alarm name boolean-test |
| snmp monitor alarm name delta-discontinuity-check |
| snmp monitor alarm name existence-test |
| snmp monitor alarm name threshold-test |
| snmp monitor chassis-alarm |
| snmp monitor chassis-alarm cpu-temperature |
| snmp monitor chassis-alarm fan-speed |
| snmp monitor chassis-alarm system-temperature |
| snmp monitor chassis-alarm voltage-1.8v |
| snmp monitor chassis-alarm voltage-12v |
| snmp monitor chassis-alarm voltage-3.3v |
| snmp monitor chassis-alarm voltage-5v |
| snmp monitor chassis-alarm voltage-battery |

| |
|---|
| snmp monitor chassis-alarm voltage-cpu-core |
| snmp monitor chassis-alarm voltage-cpu-dimm |
| snmp monitor chassis-alarm voltage-negative12v |
| snmp monitor event |
| snmp monitor event name notification |
| snmp monitor event name snmp-set |
| snmp notify alarm category |
| snmp notify alarm category category-name alarm |
| snmp notify event category |
| snmp notify event category category-name event |
| snmp notify target |
| snmp v3 snmp-community |
| snmp v3 usm local-engine user |
| snmp v3 usm local-engine user username access |
| snmp v3 usm local-engine user username authentication-md5 |
| snmp v3 usm local-engine user username authentication-sha |
| snmp v3 usm local-engine user username privacy-aes |
| snmp v3 usm local-engine user username privacy-des |
| snmp v3 vacm access group |
| snmp v3 vacm access group group-name default-context-prefix |
| snmp v3 vacm access group group-name default-context-prefix security-model |
| snmp v3 vacm access group group-name default-context-prefix security-model (any \| v1 \| v2c \| usm) security-level |
| snmp v3 vacm security-to-group security-model |
| snmp v3 vacm security-to-group security-model (v1 \| v2c \| usm) security-name |
| snmp view |
| snmp view view-name oid |
| Operational Commands |

# snmp

## Syntax

```
snmp {
     contact contact;
     name name;
     location location;
     description description;
     address [address...];
}
```

## Hierarchy Level

```
[edit snmp]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure SNMP system information.

## Options

`contact` *`contact`*—(Optional) Administrative contact for the system being managed by SNMP.

**Value**—Text
**Editing Level**—Basic

`name` *`name`*—(Optional) Name of the system being managed by SNMP.

**Value**—Text
**Editing Level**—Basic

`location` *`location`*—(Optional) Location of the system being managed by SNMP.

**Value**—Text
**Editing Level**—Basic

`description` *`description`*—(Optional) Description of the system being managed by SNMP.

**Value**—Text

**Editing Level**—Basic

`address [address...]`—(Optional) Listening address on which to receive incoming SNMP requests.

**Value**— IP address; list of addresses.
**Default**— The SNMP agent listens on all IPv4 interfaces.
**Editing Level**—Basic

## Required Privilege Level

snmp

## Required Editing Level

Basic

# snmp agent

### Syntax

```
snmp agent {
     trap-history-limit trap-history-limit;
     component-polling-interval component-polling-interval;
     protocol-log-level protocol-log-level;
}
```

### Hierarchy Level

```
[edit snmp agent]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure SNMP agent.

### Options

`trap-history-limit` *`trap-history-limit`*—(Optional) Maximum number of elements stored in the SNMP trap history table.

**Value**—Integer in the range 1–2147483647
**Default**—800
**Editing Level**—Basic

`component-polling-interval` *`component-polling-interval`*—(Optional) Interval at which the SRC component is polled to determine whether it is running and to generate up and down event traps.

**Value**—Integer in the range 10–2147483647 seconds
**Default**—60
**Editing Level**—Basic

`protocol-log-level` *`protocol-log-level`*—(Optional) The log level for SNMP requests received from the master agent and responses to the requests. To enable packet-level logging, set it to 9 or less.

**Value**—Integer in the range 0–100
**Default**—20
**Editing Level**—Expert

## Required Privilege Level

snmp

## Required Editing Level

Basic

# snmp agent initial

### Syntax

```
snmp agent initial {
     base-dn base-dn;
     host-id host-id;
}
```

### Hierarchy Level

```
[edit snmp agent initial]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure initial properties for the SNMP agent.

### Options

`base-dn` *`base-dn`*— DN of the directory used for the SNMP agent configuration data.

**Value**— DN
**Default**—${system ldap client base-dn}
**Editing Level**—Basic

`host-id` *`host-id`*— Identifier of the system management configuration in the directory server that provides the remaining configuration for the SNMP agent. If the entry does not exist, the entry and the subentries for the components and traps is automatically created in the system management configuration.

**Value**— DN
**Default**—ou=POP-ID,ou=System Management,ou=Configuration,o=Management,o=umc
**Editing Level**—Basic

### Required Privilege Level

snmp

### Required Editing Level

Basic

# snmp agent initial directory-connection

## Syntax

```
snmp agent initial directory-connection {
     url url;
     backup-urls [backup-urls...];
     principal principal;
     credentials credentials;
     protocol (ldaps);
     timeout timeout;
     check-interval check-interval;
     blacklist;
     snmp-agent;
}
```

## Hierarchy Level

```
[edit snmp agent initial directory-connection]
```

## Description

Configure properties for the directory connection.

## Options

`url` *`url`*—(Optional) URL that identifies the location of the primary directory server.

**Value**— URL
**Default**—ldap://127.0.0.1:389
**Editing Level**—Basic

`backup-urls [`*`backup-urls...`*`]`—(Optional) URLs that identify the locations of backup directory servers. Backup servers are used if the primary directory server is not accessible.

**Value**— List of URLs
**Editing Level**—Basic

`principal` *`principal`*— DN that the SRC component uses for authentication to access the directory.

**Value**— DN.

When you specify the DN, you can use <base> to indicate the base DN.

**Editing Level**—Basic

`credentials` *`credentials`*— Password with which the SRC component accesses the directory.

**Value**— Password
**Editing Level**—Basic

`protocol (ldaps)`—(Optional) Security protocol used to connect to the directory. If you do not configure a security protocol, plain socket is used.

**Value**

- `ldaps`— LDAPS which uses SSL.

**Editing Level**—Expert

`timeout` *`timeout`*—(Optional) Maximum amount of time during which the directory must respond to a connection request.

**Value**—Integer in the range 1–2147483647 s
**Default**—10
**Editing Level**—Expert

`check-interval` *`check-interval`*—(Optional) Time interval at which the directory monitoring system verifies its connection to the directory. If the directory connection fails after this interval, the directory monitoring system initiates a connection to another directory.

**Value**—Integer in the range 15–2147483647 s
**Default**—60
**Editing Level**—Expert

`blacklist`—(Optional) Specifies whether the directory monitoring system prevents connection to a directory if the directory fails to respond during 10 polling intervals.

**Default**—false
**Editing Level**—Basic

`snmp-agent`—(Optional) Specifies whether the SRC SNMP agent exports MIBs for this directory connection.

**Default**—false
**Editing Level**—Expert

## Required Privilege Level

snmp

## Required Editing Level

Basic

# snmp agent initial directory-eventing

## Syntax

```
snmp agent initial directory-eventing {
     eventing;
     signature-dn signature-dn;
     polling-interval polling-interval;
     event-base-dn event-base-dn;
     dispatcher-pool-size dispatcher-pool-size;
}
```

## Hierarchy Level

```
[edit snmp agent initial directory-eventing]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Change configuration for directory eventing properties. In most cases, you can use the default configuration for these properties.

## Options

`eventing`—(Optional) Enable an SRC component to poll the directory for changes.

**Default**—true
**Editing Level**—Normal

`signature-dn` *`signature-dn`*—(Optional) DN of the directory entry that specifies the usedDirectory attribute for the SRC CLI. The usedDirectory attribute identifies the vendor of the directory server.

**Value**— DN
**Default**—o=umc
**Editing Level**—Expert

`polling-interval` *`polling-interval`*—(Optional) Interval at which an SRC component polls the directory to check for directory changes.

**Value**—Integer in the range 15–2147483647 s
**Default**—30
**Editing Level**—Normal

`event-base-dn` *`event-base-dn`*—(Optional) DN of an entry superior to the data associated with an SRC component in the directory.

If you are storing non-SRC data in the directory, and that data changes frequently whereas the SRC data does not, you may need to adjust the default value to improve performance. For optimal performance, set the value to the DN of an entry superior to both the SRC data and the changing non-SRC data.

**Value**— DN
**Default**—o=UMC
**Editing Level**—Expert

`dispatcher-pool-size` *`dispatcher-pool-size`*—(Optional) Number of directory change notifications that can be sent simultaneously to the SRC component.

**Value**—Integer in the range 0–2147483647
**Default**—1
**Editing Level**—Expert

## Required Privilege Level

snmp

## Required Editing Level

Basic

# snmp agent java

## Syntax

```
snmp agent java {
     heap-size heap-size;
}
```

## Hierarchy Level

```
[edit snmp agent java]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure local Java Runtime Environment (JRE) properties for the SNMP agent.

## Options

`heap-size` *`heap-size`*—(Optional) Maximum amount of Java heap (memory) available to the JRE. Do not change this value unless instructed to do so by Juniper Networks.

**Value**— Number of megabytes in the format *integer*m
**Default**—160m
**Editing Level**—Basic

## Required Privilege Level

snmp

## Required Editing Level

Basic

# snmp agent logger

## Syntax

`snmp agent logger` *`name`* `...`

## Hierarchy Level

`[edit snmp agent logger]`

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure the logging destination.

## Options

`name` *`name`*— Name used to group parameters for the logging destination.

**Value**—Text

## Required Privilege Level

snmp

## Required Editing Level

Basic

# snmp agent logger *name* file

## Syntax

```
snmp agent logger name file {
     filter filter;
     device-filter-key device-filter-key;
     filename filename;
     rollover-filename rollover-filename;
     maximum-file-size maximum-file-size;
}
```

## Hierarchy Level

`[edit snmp agent logger name file]`

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure the logging destination for file-based logging.

`filter filter`—(Optional) Filter to define which event messages the software logs or ignores. Filters can specify the logging level, such as debug, or can specify expressions. For information about expressions, see the documentation that describes how to configure logging.

**Value**— Log filter
**Default**— The default value is different for each type of component.
**Editing Level**—Basic

`device-filter-key device-filter-key`—(Optional) Filter the DEBUG logs specific to network device. The filtering can be done based on combinations of parameters namely router-name/interface-name/login-name. These parameters can be associated using AND (&) or OR (|) operators. Syntax: set device-filter-key (router-name=<val> & interface-name=<val> | login-name=<val> All three parameters are optional. Absence of a parameter would indicate match ANY. Example: set device-filter-key (router-name=<val>) would indicate match debug logs based on the router-name only irrespective of the interface-name or login-name. Note: 1. "device-filter-key" will NOT filter info/error/warning logs. 2. This version supports network device specific logging for COPs drivers only

**Value**— Log network device filter
**Default**— The default value is different for each type of component.
**Editing Level**—Basic

`filename filename`— Absolute path of the filename that contains the current logs.

**Note:** Make sure that the user under which the J2EE application server or Web application server runs has write access to this folder. If this user does not have write access to the default folder, configure the component or application to write logs in folders to which the user has write access.

**Value**— Filename
**Default**— By default, SRC components and applications write log files in the folder in which the component or application is started.
**Editing Level**—Basic

`rollover-filename` *`rollover-filename`*—(Optional) Absolute path of the filename that contains the log history. When the log file reaches the maximum size, the software closes the log file and renames it with the name you specify for the rollover file. If a previous rollover file exists, the software overwrites it. The software then reopens the log file and continues to save event messages in it.

**Value**— Path of filename

Example—/opt/UMC/sae/var/log/sae.alt

**Default**— The default value is different for each type of component.
**Editing Level**—Normal

`maximum-file-size` *`maximum-file-size`*—(Optional) Maximum size of the log file and the rollover file.

Do not set the maximum file size to a value greater than the available disk space.

**Value**—Integer in the range 0–10000000 kbytes
**Default**— 1000000
**Editing Level**—Normal

## Required Privilege Level

snmp

## Required Editing Level

Basic

# snmp agent logger *name* syslog

## Syntax

```
snmp agent logger name syslog {
     filter filter;
     host host;
     port port;
     facility facility;
     format format;
}
```

## Hierarchy Level

```
[edit snmp agent logger name syslog]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure the logging destination for syslog-based logging.

`filter` *`filter`*—(Optional) Filter to define which event messages the software logs or ignores. Filters can specify the logging level, such as debug, or can specify expressions. For information about expressions, see the documentation that describes how to configure logging.

**Value**— Log filter
**Default**— The default value is different for each type of component.
**Editing Level**—Basic

`host` *`host`*— IP address or name of a host that collects event messages by means of a standard system logging daemon.

**Value**— IP address or hostname
**Default**—loghost
**Editing Level**—Basic

`port` *`port`*—(Optional) Port number for system logging daemon.

**Value**— Port number in the range of 0–65535
**Default**— 514
**Editing Level**—Basic

`facility` *`facility`*

—(Optional) Type of system log in accordance with the system logging protocol.

**Value**—Integer in the range 0–23
**Default**— 3
**Editing Level**—Advanced

`format` *`format`*—(Optional) MessageFormat string that specifies how the information in an event message is printed. (The strings {#} are replaced with the log information [...]).

**Value**— MessageFormat string as specified in http://java.sun.com/j2se/1.4.2/docs/api/java/text/MessageFormat.html.

The fields available for events are:

- 0—Time and date of the event
- 1—Name of the thread generating the event
- 2—Text message of the event
- 3—Category of the event
- 4—Priority of the event

**Editing Level**—Advanced

## Required Privilege Level

snmp

## Required Editing Level

Basic

# snmp community

## Syntax

```
snmp community community {
     authorization (read-only | read-write);
     clients clients;
     oid oid;
}
```

## Hierarchy Level

```
[edit snmp community]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure a community string, which defines the access control for client systems.

## Options

`community` *`community`*— Community name.

**Value**—Text

`authorization (read-only | read-write)`—(Optional) Authorization type.

**Value**

- `read-only`— Allow read-only access
- `read-write`— Allow read and write access

**Default**—read-only
**Editing Level**—Basic

`clients` *`clients`*— IP address or subnet of the SNMP client hosts that are authorized to use this community. By default, all clients are allowed.

**Value**—Text
**Default**—0.0.0.0/0
**Editing Level**—Basic

`oid` *`oid`*—(Optional) Object identifier (OID) used to represent a subtree of MIB objects to which access is allowed.

**Value**—Text
**Default**— Access to the full OID tree
**Editing Level**—Basic

## Required Privilege Level

snmp

## Required Editing Level

Basic

# snmp monitor

## Syntax

```
snmp monitor {
     security-name security-name;
}
```

## Hierarchy Level

```
[edit snmp monitor]
```

## Release Information

Statement introduced in SRC Release 3.0.0

## Description

Provide active monitoring of SRC MIB objects as configured. The software generates associated notification events when specified criteria are met.

## Options

`security-name` *`security-name`*— SNMPv3 username to access a monitored MIB object. SNMPv3 provides security by controlling access to the objects.

**Value**— *username*
**Default**— No value
**Editing Level**—Normal

## Required Privilege Level

snmp

## Required Editing Level

Normal

# snmp monitor alarm

## Syntax

```
snmp monitor alarm name {
     interval interval;
     sample-type (absolute-value | delta-value);
     ignore-startup-alarm;
     event event;
     variable variable;
     strict-oid;
}
```

## Hierarchy Level

```
[edit snmp monitor alarm]
```

## Release Information

Statement introduced in SRC Release 3.0.0

## Description

Monitor the value of a MIB object. You can configure how often to sample a value, the type of sampling to perform, the type of alarm or trigger to use the sampled value, and the event to generate in response to a specified condition.

**Note:**Configure one alarm condition at a time.

## Options

`name` *`name`*— Name of the alarm (also referred to as a trigger).

**Value**—Text

`interval` *`interval`*— Interval between monitoring samples.

**Value**—Integer in the range seconds
**Default**—600
**Editing Level**—Normal

`sample-type (absolute-value | delta-value)`— Method of sampling to use for the specified variable.

**Note:** Existence tests disregard the sample type when set to `delta-value`.

**Value**

`absolute-value`

— Use actual value of the trigger to compare to the threshold value.

- `delta-value`— Use the delta (difference between two samples) to compare to the value.

**Default**— No value
**Editing Level**—Normal

`ignore-startup-alarm`—(Optional) Whether the alarm can be sent when it is first activated. If this option is set, the monitor expression is not evaluated when the alarm activates the first time. If not set, the first evaluation is done after the alarm is activated.

**Default**—false
**Editing Level**—Normal

`event` *`event`*—(Optional) The name of the event to be generated in response to the alarm condition. If you do not specify an event, the software uses one of the following DISMAN notification events: mteTriggerFired in existence or boolean tests, and mteTriggerRising or mteTriggerFalling in threshold tests.

**Value**— *event name*
**Default**— None
**Editing Level**—Normal

`variable` *`variable`*— Object identifier (OID) of the MIB variable to be monitored. The OID can be a an identifier in dotted decimal notation or the name of a MIB object.

**Value**— *OID* or *name*
**Default**— No value
**Editing Level**—Normal

`strict-oid`—(Optional) Monitor the SNMP object instance specified by the variable attribute. If you do not set this option, the software monitors all objects in the MIB branch specified by the variable option.

**Default**—false
**Editing Level**—Normal

## Required Privilege Level

snmp

## Required Editing Level

Normal

# snmp monitor alarm *name* boolean-test

## Syntax

```
snmp monitor alarm name boolean-test {
     comparison (equal | unequal | less | less-or-equal | greater | greater-or-equal);

     value value;
}
```

## Hierarchy Level

```
[edit snmp monitor alarm name boolean-test]
```

## Release Information

Statement introduced in SRC Release 3.0.0

## Description

Define a monitor test to compare a sample value to a specified value or range of values. If the condition specified for the test is met, the software generates the event. The software generates the event again after the status of the condition changes to false then to true again.

**Note:** Configure only one monitor test at a time.

## Options

`comparison (equal | unequal | less | less-or-equal | greater | greater-or-equal)`— Type of boolean comparison to perform.

**Value**

- `equal`— True if the sample value equals object value.
- `unequal`— True if the sample value does not equal the object value.
- `less`— True if the sample is less than the object value.
- `less-or-equal`— True if the sample value is less than or equal to the object value.
- `greater`— True if the sample value is greater than the object value.
- `greater-or-equal`— True if the sample value is greater than or equal to the object value.

**Default**— No value
**Editing Level**—Normal

`value value`— Value against which to compare the sample value.

**Value**—Integer in the range -2147483648–2147483647

**Default**— No Value
**Editing Level**—Normal

## Required Privilege Level

snmp

## Required Editing Level

Normal

# snmp monitor alarm *name* delta-discontinuity-check

### Syntax

```
snmp monitor alarm name delta-discontinuity-check {
     variable variable;
     strict-oid;
}
```

### Hierarchy Level

```
[edit snmp monitor alarm name delta-discontinuity-check]
```

### Release Information

Statement introduced in SRC Release 3.0.0

### Description

Configure SNMP to detect a discontinuity in values to prevent false alarms caused by the value of a MIB object being reset. Use this statement when the sample type is delta-value (a change in the value of a monitored MIB object is compared to a threshold value). You define a variable, called a discontinuity marker, which is a MIB object to use to validate the delta, or difference, between values. The marker object should be of type TimeTicks, DateAndTime, or Timestamp.

Before the SNMP agent calculates a delta, it checks the discontinuity marker for the trigger condition at the end of a polling interval. A change in the value of the discontinuity marker indicates that a discontinuity occurs. As a result, the agent does not perform the test for the associated trigger condition until the next polling interval.

### Options

`variable` *`variable`*— Object identifier (OID) or name of a discontinuity marker.

**Value**— Marker object of type TimeTicks, DateAndTime or Timestamp
**Default**— No value
**Editing Level**—Normal

`strict-oid`—(Optional) Monitor the discontinuity marker instance specified by the variable attribute. If you do not set this option, the software monitors all discontinuity objects subordinate to the value set by the variable option.

**Default**—false
**Editing Level**—Normal

## Required Privilege Level

snmp

## Required Editing Level

Normal

# snmp monitor alarm *name* existence-test

### Syntax

```
snmp monitor alarm name existence-test {
     type (present | absent | changed);
}
```

### Hierarchy Level

```
[edit snmp monitor alarm name existence-test]
```

### Release Information

Statement introduced in SRC Release 3.0.0

### Description

Define a monitor test to identify when an object appears, disappears, or changes value. If the test criteria are met, the test is successful.

**Note:** Configure only one monitor test at a time.

### Options

`type (present | absent | changed)`— Type of monitor test to perform.

**Value**

- `present`— Test for appearance of object.
- `absent`— Test for disappearance of object.
- `changed`— Test for change in value of object.

**Default**— No value
**Editing Level**—Normal

### Required Privilege Level

snmp

### Required Editing Level

Normal

# snmp monitor alarm *name* threshold-test

## Syntax

```
snmp monitor alarm name threshold-test {
     rising-threshold rising-threshold;
     falling-threshold falling-threshold;
}
```

## Hierarchy Level

```
[edit snmp monitor alarm name threshold-test]
```

## Release Information

Statement introduced in SRC Release 3.0.0

## Description

Define a threshold monitor test. A threshold test compares the sample value to a configured upper and lower threshold. The monitor generates a corresponding event when the value of the monitored object falls below the lower threshold or rises above the upper threshold.

After a rising threshold event is generated, it is generated again only after the sample value falls below the lower threshold. Similarly, a subsequent falling threshold event is generated when the sample value rises above the upper threshold.

**Note:** Configure only one monitor test at a time.

## Options

`rising-threshold` *`rising-threshold`*— Upper threshold for the sample value.The software generates an event when the sample value is greater than or equal to the rising threshold, and the value at the last sampling interval is less than this threshold.

**Value**—Integer in the range -2147483648–2147483647
**Default**— No value
**Editing Level**—Normal

`falling-threshold` *`falling-threshold`*— Lower threshold for the sample value. The software generates an event when the sample value is less than or equal to the falling threshold, and the value at the last sampling interval is greater than this threshold.

**Value**—Integer in the range -2147483648–2147483647
**Default**— No value
**Editing Level**—Normal

## Required Privilege Level

snmp

## Required Editing Level

Normal

# snmp monitor chassis-alarm

## Syntax

```
snmp monitor chassis-alarm {
     disable;
     interval interval;
}
```

## Hierarchy Level

```
[edit snmp monitor chassis-alarm]
```

## Release Information

Statement introduced in SRC Release 3.2.0

## Description

Configure built-in chassis alarms that monitor the sensors on C Series Controllers.

## Options

`disable`—(Optional) Disables all chassis alarms.

**Default**—true
**Editing Level**—Basic

`interval` *`interval`*—(Optional) Time interval during which SNMP samples the value of an object.

**Value**—Integer in the range 15–2147483647 s
**Default**—15
**Editing Level**—Basic

## Required Privilege Level

No specific privilege required.

## Required Editing Level

Expert

# snmp monitor chassis-alarm cpu-temperature

## Syntax

```
snmp monitor chassis-alarm cpu-temperature {
     minor minor;
     major major;
     critical critical;
}
```

## Hierarchy Level

```
[edit snmp monitor chassis-alarm cpu-temperature]
```

## Release Information

Statement introduced in SRC Release 3.2.0

## Description

Configure the SNMP alarm thresholds for CPU temperature sensors.

## Options

`minor` *`minor`*—(Optional) Minor alarm upper threshold for CPU temperature.

**Value**—Integer in the range -2147483648–2147483647 degree C
**Editing Level**—Basic

`major` *`major`*—(Optional) Major alarm upper threshold for CPU temperature.

**Value**—Integer in the range -2147483648–2147483647 degree C
**Editing Level**—Basic

`critical` *`critical`*—(Optional) Critical alarm upper threshold for CPU temperature.

**Value**—Integer in the range -2147483648–2147483647 degree C
**Editing Level**—Basic

## Required Privilege Level

No specific privilege required.

## Required Editing Level

Basic

# snmp monitor chassis-alarm fan-speed

## Syntax

```
snmp monitor chassis-alarm fan-speed {
     minor minor;
     major major;
     critical critical;
}
```

## Hierarchy Level

```
[edit snmp monitor chassis-alarm fan-speed]
```

## Release Information

Statement introduced in SRC Release 3.2.0

## Description

Configure the SNMP alarm thresholds for fan speed sensors.

## Options

`minor` *`minor`*—(Optional) Minor alarm lower threshold for fan speed (in RPM).

**Value**—Integer in the range -2147483648–2147483647 RPM
**Editing Level**—Basic

`major` *`major`*—(Optional) Major alarm lower threshold for fan speed (in RPM).

**Value**—Integer in the range -2147483648–2147483647 RPM
**Editing Level**—Basic

`critical` *`critical`*—(Optional) Critical alarm lower threshold for fan speed (in RPM).

**Value**—Integer in the range -2147483648–2147483647 RPM
**Editing Level**—Basic

## Required Privilege Level

No specific privilege required.

## Required Editing Level

Basic

# snmp monitor chassis-alarm system-temperature

## Syntax

```
snmp monitor chassis-alarm system-temperature {
     minor minor;
     major major;
     critical critical;
}
```

## Hierarchy Level

```
[edit snmp monitor chassis-alarm system-temperature]
```

## Release Information

Statement introduced in SRC Release 3.2.0

## Description

Configure the SNMP alarm thresholds for system temperature sensors.

## Options

`minor` *`minor`*—(Optional) Minor alarm upper threshold for system temperature.

**Value**—Integer in the range -2147483648–2147483647 degree C
**Editing Level**—Basic

`major` *`major`*—(Optional) Major alarm upper threshold for system temperature.

**Value**—Integer in the range -2147483648–2147483647 degree C
**Editing Level**—Basic

`critical` *`critical`*—(Optional) Critical alarm upper threshold for system temperature.

**Value**—Integer in the range -2147483648–2147483647 degree C
**Editing Level**—Basic

## Required Privilege Level

No specific privilege required.

## Required Editing Level

Basic

# snmp monitor chassis-alarm voltage-1.8v

## Syntax

```
snmp monitor chassis-alarm voltage-1.8v {
     below-minor below-minor;
     below-major below-major;
     below-critical below-critical;
     over-minor over-minor;
     over-major over-major;
     over-critical over-critical;
}
```

## Hierarchy Level

```
[edit snmp monitor chassis-alarm voltage-1.8v]
```

## Release Information

Statement introduced in SRC Release 3.2.0

## Description

Configure the SNMP alarm thresholds for 1.8V sensors.

## Options

`below-minor` *`below-minor`*—(Optional) Minor alarm lower threshold for 1.8V voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

`below-major` *`below-major`*—(Optional) Major alarm lower threshold for 1.8V voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

`below-critical` *`below-critical`*—(Optional) Critical alarm lower threshold for 1.8V voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

`over-minor` *`over-minor`*—(Optional) Minor alarm upper threshold for 1.8V voltage.

**Value**—Integer in the range -2147483648–2147483647 mV

**Editing Level**—Basic

`over-major` *`over-major`*—(Optional) Major alarm upper threshold for 1.8V voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

`over-critical` *`over-critical`*—(Optional) Critical alarm upper threshold for 1.8V voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

## Required Privilege Level

No specific privilege required.

## Required Editing Level

Basic

# snmp monitor chassis-alarm voltage-12v

## Syntax

```
snmp monitor chassis-alarm voltage-12v {
     below-minor below-minor;
     below-major below-major;
     below-critical below-critical;
     over-minor over-minor;
     over-major over-major;
     over-critical over-critical;
}
```

## Hierarchy Level

```
[edit snmp monitor chassis-alarm voltage-12v]
```

## Release Information

Statement introduced in SRC Release 3.2.0

## Description

Configure the SNMP alarm thresholds for 12V sensors.

## Options

`below-minor` *`below-minor`*—(Optional) Minor alarm lower threshold for 12V voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

`below-major` *`below-major`*—(Optional) Major alarm lower threshold for 12V voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

`below-critical` *`below-critical`*—(Optional) Critical alarm lower threshold for 12V voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

`over-minor` *`over-minor`*—(Optional) Minor alarm upper threshold for 12V voltage.

**Value**—Integer in the range -2147483648–2147483647 mV

**Editing Level**—Basic

`over-major` *`over-major`*—(Optional) Major alarm upper threshold for 12V voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

`over-critical` *`over-critical`*—(Optional) Critical alarm upper threshold for 12V voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

## Required Privilege Level

No specific privilege required.

## Required Editing Level

Basic

# snmp monitor chassis-alarm voltage-3.3v

## Syntax

```
snmp monitor chassis-alarm voltage-3.3v {
     below-minor below-minor;
     below-major below-major;
     below-critical below-critical;
     over-minor over-minor;
     over-major over-major;
     over-critical over-critical;
}
```

## Hierarchy Level

```
[edit snmp monitor chassis-alarm voltage-3.3v]
```

## Release Information

Statement introduced in SRC Release 3.2.0

## Description

Configure the SNMP alarm thresholds for 3.3V sensors.

## Options

`below-minor` *`below-minor`*—(Optional) Minor alarm lower threshold for 3.3V voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

`below-major` *`below-major`*—(Optional) Major alarm lower threshold for 3.3V voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

`below-critical` *`below-critical`*—(Optional) Critical alarm lower threshold for 3.3V voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

`over-minor` *`over-minor`*—(Optional) Minor alarm upper threshold for 3.3V voltage.

**Value**—Integer in the range -2147483648–2147483647 mV

**Editing Level**—Basic

`over-major` *`over-major`*—(Optional) Major alarm upper threshold for 3.3V voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

`over-critical` *`over-critical`*—(Optional) Critical alarm upper threshold for 3.3V voltage.

**Value**—Integer in the range mV
**Editing Level**—Basic

## Required Privilege Level

No specific privilege required.

## Required Editing Level

Basic

# snmp monitor chassis-alarm voltage-5v

## Syntax

```
snmp monitor chassis-alarm voltage-5v {
     below-minor below-minor;
     below-major below-major;
     below-critical below-critical;
     over-minor over-minor;
     over-major over-major;
     over-critical over-critical;
}
```

## Hierarchy Level

```
[edit snmp monitor chassis-alarm voltage-5v]
```

## Release Information

Statement introduced in SRC Release 3.2.0

## Description

Configure the SNMP alarm thresholds for 5V sensors.

## Options

`below-minor` *`below-minor`*—(Optional) Minor alarm lower threshold for 5V voltage.

**Value**—Integer in the range mV
**Editing Level**—Basic

`below-major` *`below-major`*—(Optional) Major alarm lower threshold for 5V voltage.

**Value**—Integer in the range mV
**Editing Level**—Basic

`below-critical` *`below-critical`*—(Optional) Critical alarm lower threshold for 5V voltage.

**Value**—Integer in the range mV
**Editing Level**—Basic

`over-minor` *`over-minor`*—(Optional) Minor alarm upper threshold for 5V voltage.

**Value**—Integer in the range -2147483648–2147483647 mV

**Editing Level**—Basic

`over-major` *`over-major`*—(Optional) Major alarm upper threshold for 5V voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

`over-critical` *`over-critical`*—(Optional) Critical alarm upper threshold for 5V voltage.

**Value**—Integer in the range -2147483648–2147483647
**Editing Level**—Basic

## Required Privilege Level

No specific privilege required.

## Required Editing Level

Basic

# snmp monitor chassis-alarm voltage-battery

## Syntax

```
snmp monitor chassis-alarm voltage-battery {
     below-minor below-minor;
     below-major below-major;
     below-critical below-critical;
     over-minor over-minor;
     over-major over-major;
     over-critical over-critical;
}
```

## Hierarchy Level

```
[edit snmp monitor chassis-alarm voltage-battery]
```

## Release Information

Statement introduced in SRC Release 3.2.0

## Description

Configure the SNMP alarm thresholds for battery voltage sensors.

## Options

`below-minor` *`below-minor`*—(Optional) Minor alarm lower threshold for battery voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

`below-major` *`below-major`*—(Optional) Major alarm lower threshold for battery voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

`below-critical` *`below-critical`*—(Optional) Critical alarm lower threshold for battery voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

`over-minor` *`over-minor`*—(Optional) Minor alarm upper threshold for battery voltage.

**Value**—Integer in the range -2147483648–2147483647 mV

**Editing Level**—Basic

`over-major` *`over-major`*—(Optional) Major alarm upper threshold for battery voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

`over-critical` *`over-critical`*—(Optional) Critical alarm upper threshold for battery voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

## Required Privilege Level

No specific privilege required.

## Required Editing Level

Basic

# snmp monitor chassis-alarm voltage-cpu-core

## Syntax

```
snmp monitor chassis-alarm voltage-cpu-core {
     below-minor below-minor;
     below-major below-major;
     below-critical below-critical;
     over-minor over-minor;
     over-major over-major;
     over-critical over-critical;
}
```

## Hierarchy Level

```
[edit snmp monitor chassis-alarm voltage-cpu-core]
```

## Release Information

Statement introduced in SRC Release 3.2.0

## Description

Configure the SNMP alarm thresholds for CPU core voltage sensors.

## Options

`below-minor` *`below-minor`*—(Optional) Minor alarm lower threshold for CPU core voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

`below-major` *`below-major`*—(Optional) Major alarm lower threshold for CPU core voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

`below-critical` *`below-critical`*—(Optional) Critical alarm lower threshold for CPU core voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

`over-minor` *`over-minor`*—(Optional) Minor alarm upper threshold for CPU core voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

`over-major` *`over-major`*—(Optional) Major alarm upper threshold for CPU core voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

`over-critical` *`over-critical`*—(Optional) Critical alarm upper threshold for CPU core voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

## Required Privilege Level

No specific privilege required.

## Required Editing Level

Basic

# snmp monitor chassis-alarm voltage-cpu-dimm

## Syntax

```
snmp monitor chassis-alarm voltage-cpu-dimm {
     below-minor below-minor;
     below-major below-major;
     below-critical below-critical;
     over-minor over-minor;
     over-major over-major;
     over-critical over-critical;
}
```

## Hierarchy Level

```
[edit snmp monitor chassis-alarm voltage-cpu-dimm]
```

## Release Information

Statement introduced in SRC Release 3.2.0

## Description

Configure the SNMP alarm thresholds for CPU DIMM voltage sensors.

## Options

`below-minor` *`below-minor`*—(Optional) Minor alarm lower threshold for CPU DIMM voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

`below-major` *`below-major`*—(Optional) Major alarm lower threshold for CPU DIMM voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

`below-critical` *`below-critical`*—(Optional) Critical alarm lower threshold for CPU DIMM voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

`over-minor` *`over-minor`*—(Optional) Minor alarm upper threshold for CPU DIMM

voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

`over-major` *`over-major`*—(Optional) Major alarm upper threshold for CPU DIMM voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

`over-critical` *`over-critical`*—(Optional) Critical alarm upper threshold for CPU DIMM voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

## Required Privilege Level

No specific privilege required.

## Required Editing Level

Basic

# snmp monitor chassis-alarm voltage-negative12v

## Syntax

```
snmp monitor chassis-alarm voltage-negative12v {
     below-minor below-minor;
     below-major below-major;
     below-critical below-critical;
     over-minor over-minor;
     over-major over-major;
     over-critical over-critical;
}
```

## Hierarchy Level

```
[edit snmp monitor chassis-alarm voltage-negative12v]
```

## Release Information

Statement introduced in SRC Release 3.2.0

## Description

Configure the SNMP alarm thresholds for –12V sensors.

## Options

`below-minor` *`below-minor`*—(Optional) Minor alarm lower threshold for –12V voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

`below-major` *`below-major`*—(Optional) Major alarm lower threshold for –12V voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

`below-critical` *`below-critical`*—(Optional) Critical alarm lower threshold for –12V voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

`over-minor` *`over-minor`*—(Optional) Minor alarm upper threshold for –12V voltage.

**Value**—Integer in the range -2147483648–2147483647 mV

**Editing Level**—Basic

`over-major` *`over-major`*—(Optional) Major alarm upper threshold for –12V voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

`over-critical` *`over-critical`*—(Optional) Critical alarm upper threshold for –12V voltage.

**Value**—Integer in the range -2147483648–2147483647 mV
**Editing Level**—Basic

## Required Privilege Level

No specific privilege required.

## Required Editing Level

Basic

# snmp monitor event

## Syntax

`snmp monitor event` *`name`* `...`

## Hierarchy Level

`[edit snmp monitor event]`

## Release Information

Statement introduced in SRC Release 3.0.0

## Options

`name` *`name`*— The name of the event to be invoked in response to a trigger or an alarm. When the event is invoked, SNMP sends a notification or an snmp-set.

**Value**—Text

## Required Privilege Level

snmp

## Required Editing Level

Normal

# snmp monitor event *name* notification

## Syntax

```
snmp monitor event name notification {
     oid oid;
     strict-object [strict-object...];
     wildcarded-object [wildcarded-object...];
}
```

## Hierarchy Level

```
[edit snmp monitor event name notification]
```

## Release Information

Statement introduced in SRC Release 3.0.0

## Description

Define an event for which SNMP sends a notification.

**Note:** Do not define an event notification and an snmp-set for the same event.

## Options

`oid oid`— Notification Object identifier (OID).

**Value**— *OID*
**Default**— No value
**Editing Level**—Normal

`strict-object [strict-object...]`—(Optional) OIDs of VARBIND objects to be used as specified

**Value**— *OID*
**Default**— No value
**Editing Level**—Normal

`wildcarded-object [wildcarded-object...]`—(Optional) OIDs of VARBIND objects include subidentifiers from the corresponding monitored object appended to the object.

**Value**— *OID*
**Default**— No value
**Editing Level**—Normal

## Required Privilege Level

snmp

## Required Editing Level

Normal

# snmp monitor event *name* snmp-set

## Syntax

```
snmp monitor event name snmp-set {
     variable variable;
     value value;
     strict-oid;
}
```

## Hierarchy Level

```
[edit snmp monitor event name snmp-set]
```

## Release Information

Statement introduced in SRC Release 3.0.0

## Description

Define an event that sets a MIB variable. Do not define an event notification and an snmp-set for the same event.

## Options

`variable` *`variable`*— Object identifier (OID) of MIB variable to be set

**Value**— *OID*
**Default**— No value
**Editing Level**—Normal

`value` *`value`*— Object value to set

**Value**—Integer in the range -2147483648–2147483647
**Default**— No value
**Editing Level**—Normal

`strict-oid`—(Optional) Monitor the OID exactly as specified by the variable option. If not set, the software adds any suffixes to any OID matches.

**Default**—false
**Editing Level**—Normal

## Required Privilege Level

snmp

## Required Editing Level

Normal

# snmp notify alarm category

### Syntax

```
snmp notify alarm category category-name ...
```

### Hierarchy Level

```
[edit snmp notify alarm category]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure alarm category.

### Options

`category-name` *`category-name`*— Category name for alarm.

**Value**— Category name from list of possible completions, including:

- acp
- nic-host
- policy-decision-point
- policy-engine
- radius-accounting-peer
- radius-authentication-peer
- sae
- sae-router-driver
- sdx-redirector
- system-management

### Required Privilege Level

snmp

### Required Editing Level

Basic

# snmp notify alarm category *category-name* alarm

## Syntax

```
snmp notify alarm category category-name alarm alarm-name {
     interval interval;
     critical critical;
     major major;
     minor minor;
}
```

## Hierarchy Level

```
[edit snmp notify alarm category category-name alarm]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure alarm.

## Options

`alarm-name` *`alarm-name`*— Alarm name.

**Value**— Alarm name from list of possible completions, depending on the specified alarm category

`interval` *`interval`*—(Optional) Interval at which the variable associated with the trap is polled.

**Value**—Integer in the range 1–2147483647
**Default**—60
**Editing Level**—Basic

`critical` *`critical`*— Threshold above which a critical alarm is generated.

**Value**—Integer in the range 0–2147483647
**Editing Level**—Basic

`major` *`major`*— Threshold above which a major alarm is generated.

**Value**—Integer in the range 0–2147483647
**Editing Level**—Basic

`minor` *`minor`*— Threshold above which a minor alarm is generated.

**Value**—Integer in the range 0–2147483647
**Editing Level**—Basic

## Required Privilege Level

snmp

## Required Editing Level

Basic

# snmp notify event category

## Syntax

`snmp notify event category` *`category-name`* `...`

## Hierarchy Level

`[edit snmp notify event category]`

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure event category.

## Options

`category-name` *`category-name`*— Category name for event trap.

**Value**— Category name from list of possible completions, including:

- acp
- directory-eventing-system
- nic-host
- sae
- sae-router-driver system-
- management

## Required Privilege Level

snmp

## Required Editing Level

Basic

# snmp notify event category *category-name* event

## Syntax

`snmp notify event category` *`category-name`* `event` *`event-name`* `...`

## Hierarchy Level

`[edit snmp notify event category` *`category-name`* `event]`

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Enable event notification.

## Options

`event-name` *`event-name`*— Event trap name.

**Value**— Event name from list of possible completions, depending on the specified event category

## Required Privilege Level

snmp

## Required Editing Level

Basic

# snmp notify target

## Syntax

```
snmp notify target target-name {
     address address;
     port port;
     community community;
     type (trapv1 | trapv2 | inform);
}
```

## Hierarchy Level

```
[edit snmp notify target]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure notification target.

## Options

`target-name` *`target-name`*— Notification target name.

**Value**—Text

`address` *`address`*— IPv4 or IPv6 address of the system to receive notifications.

**Value**—IP address
**Editing Level**—Basic

`port` *`port`*—(Optional) SNMP trap port number.

**Value**—Integer in the range 0–65535
**Default**—162
**Editing Level**—Basic

`community` *`community`*— Community string used when sending traps.

**Value**—Text
**Editing Level**—Basic

`type (trapv1 | trapv2 | inform)`— Type of notifications to receive.

**Value**

- `trapv1`—SNMPv1 trap
- `trapv2`—SNMPv2c trap
- `inform`—SNMPv2 inform

**Editing Level**—Basic

## Required Privilege Level

snmp

## Required Editing Level

Basic

# snmp v3 snmp-community

## Syntax

```
snmp v3 snmp-community community-index {
     community-name community-name;
     security-name security-name;
     address address;
}
```

## Hierarchy Level

```
[edit snmp v3 snmp-community]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Map an SNMPv1 or SNMPv2c community string to a security name. Optionally, you can specify the IPv4 or IPv6 addresses of the SNMP client hosts that are authorized to use this community. By default, all SNMP clients using this community string are authorized to access the agent.

## Options

`community-index` *`community-index`*— Unique index that identifies an SNMP community.

**Value**—Text

`community-name` *`community-name`*—(Optional) A community string for an SNMPv1 or SNMPv2c community. If unspecified, the community index is used.

**Value**—Text
**Editing Level**—Basic

`security-name` *`security-name`*— The view-based access control model (VACM) security name to associate with the community string.

**Value**—Text
**Editing Level**—Basic

`address` *`address`*— IP address or subnet of the SNMP client hosts that are authorized to use this community.

**Value**—Text
**Default**— 0.0.0.0/0
**Editing Level**—Basic

## Required Privilege Level

snmp

## Required Editing Level

Basic

# snmp v3 usm local-engine user

## Syntax

`snmp v3 usm local-engine user` *`username`* `...`

## Hierarchy Level

`[edit snmp v3 usm local-engine user]`

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Specify a user associated with an SNMPv3 group. By default, no authentication or encryption is specified for the SNMPv3 user.

## Options

`username` *`username`*— SNMPv3 user-based security model (USM) username

**Value**—Text

## Required Privilege Level

snmp

## Required Editing Level

Basic

# snmp v3 usm local-engine user *username* access

## Syntax

```
snmp v3 usm local-engine user username access {
     authorization (read-only | read-write);
     oid oid;
}
```

## Hierarchy Level

```
[edit snmp v3 usm local-engine user username access]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Define access privileges for SNMPv3 user

**Note:** You cannot assign this security name to SNMP group

## Options

`authorization (read-only | read-write)`— Authorization type.

**Value**

- `read-only`— Allow read-only access
- `read-write`— Allow read and write access

**Editing Level**—Basic

`oid` *`oid`*—(Optional) Object identifier (OID) used to represent a subtree of MIB objects to which access is allowed.

**Value**—Text
**Default**— Access to the full OID tree
**Editing Level**—Basic

## Required Privilege Level

snmp

## Required Editing Level

Basic

# snmp v3 usm local-engine user *username* authentication-md5

## Syntax

```
snmp v3 usm local-engine user username authentication-md5 {
     authentication-password authentication-password;
}
```

## Hierarchy Level

```
[edit snmp v3 usm local-engine user username authentication-md5]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure Message Digest 5 (MD5) as the authentication type for the SNMPv3 user.

## Options

`authentication-password` *`authentication-password`*— Password used for authentication.

**Value**— Password; must be at least eight characters
**Editing Level**—Basic

## Required Privilege Level

snmp

## Required Editing Level

Basic

# snmp v3 usm local-engine user *username* authentication-sha

## Syntax

```
snmp v3 usm local-engine user username authentication-sha {
     authentication-password authentication-password;
}
```

## Hierarchy Level

```
[edit snmp v3 usm local-engine user username authentication-sha]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure Secure Hash Algorithm (SHA) as the authentication type for the SNMPv3 user.

## Options

`authentication-password` *`authentication-password`*— Password used for authentication.

**Value**— Password; must be at least eight characters
**Editing Level**—Basic

## Required Privilege Level

snmp

## Required Editing Level

Basic

# snmp v3 usm local-engine user *username* privacy-aes

## Syntax

```
snmp v3 usm local-engine user username privacy-aes {
     privacy-password privacy-password;
}
```

## Hierarchy Level

```
[edit snmp v3 usm local-engine user username privacy-aes]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure Advanced Encryption Standard (AES) for the SNMPv3 user.

**Note:** Before you configure encryption, you must configure MD5 or SHA authentication.

## Options

`privacy-password` *`privacy-password`*— Privacy password for the SNMPv3 user.

**Value**— Password; must be at least eight characters
**Editing Level**—Basic

## Required Privilege Level

snmp

## Required Editing Level

Basic

# snmp v3 usm local-engine user *username* privacy-des

## Syntax

```
snmp v3 usm local-engine user username privacy-des {
     privacy-password privacy-password;
}
```

## Hierarchy Level

```
[edit snmp v3 usm local-engine user username privacy-des]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure Data Encryption Standard (DES) for the SNMPv3 user.

**Note:** Before you configure encryption, you must configure MD5 or SHA authentication.

## Options

`privacy-password` *`privacy-password`*— Privacy password for the SNMPv3 user.

**Value**— Password; must be at least eight characters
**Editing Level**—Basic

## Required Privilege Level

snmp

## Required Editing Level

Basic

# snmp v3 vacm access group

## Syntax

```
snmp v3 vacm access group group-name ...
```

## Hierarchy Level

```
[edit snmp v3 vacm access group]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Define access privileges granted to a group.

## Options

`group-name` *`group-name`*— Name for a collection of SNMP security names that belong to the same SNMP access policy.

**Value**—Text

## Required Privilege Level

snmp

## Required Editing Level

Basic

# snmp v3 vacm access group *group-name* default-context-prefix

## Syntax

```
snmp v3 vacm access group group-name default-context-prefix {
}
```

## Hierarchy Level

```
[edit snmp v3 vacm access group group-name default-context-prefix]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Define how to match the context of the incoming request to the context of this group.

## Required Privilege Level

snmp

## Required Editing Level

Basic

# snmp v3 vacm access group *group-name* default-context-prefix security-model

### Syntax

```
snmp v3 vacm access group group-name default-context-prefix security-model (any | v1 |
v2c | usm) ...
```

### Hierarchy Level

```
[edit snmp v3 vacm access group group-name default-context-prefix security-model]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure security model for access privileges.

### Options

Type of security model used for access privileges.

**Value**

- `any`—Any security model
- `v1`—SNMPv1 model
- `v2c`—SNMPv2c model
- `usm`—SNMPv3 user-based security model

### Required Privilege Level

snmp

### Required Editing Level

Basic

# snmp v3 vacm access group *group-name* default-context-prefix security-model (any | v1 | v2c | usm) security-level

## Syntax

```
snmp v3 vacm access group group-name default-context-prefix security-model (any | v1 |
v2c | usm) security-level (authentication | none | privacy) {
     read-view read-view;
     write-view write-view;
}
```

## Hierarchy Level

```
[edit snmp v3 vacm access group group-name default-context-prefix security-model (any
| v1 | v2c | usm) security-level]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure access privileges granted to a particular security model.

## Options

Security level granted to a security model. If you are configuring the SNMPv1 or SNMPv2c security model, use `none` as the security level.

**Value**

- `authentication`— Provides authentication but no encryption
- `none`— Provides no authentication and no encryption
- `privacy`— Provides authentication and encryption

`read-view` *`read-view`*—(Optional) View used for SNMP Get requests.

**Value**—Text
**Default**—none
**Editing Level**—Basic

`write-view` *`write-view`*—(Optional) View used for SNMP Set requests.

**Value**—Text
**Default**—none
**Editing Level**—Basic

## Required Privilege Level

snmp

## Required Editing Level

Basic

# snmp v3 vacm security-to-group security-model

## Syntax

```
snmp v3 vacm security-to-group security-model (v1 | v2c | usm) ...
```

## Hierarchy Level

```
[edit snmp v3 vacm security-to-group security-model]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure security model context for a group.

## Options

Type of security model.

### Value

- `v1`—SNMPv1 model
- `v2c`—SNMPv2c model
- `usm`—SNMPv3 user-based security model

## Required Privilege Level

snmp

## Required Editing Level

Basic

# snmp v3 vacm security-to-group security-model (v1 | v2c | usm) security-name

## Syntax

```
snmp v3 vacm security-to-group security-model (v1 | v2c | usm) security-name security-name {
     group-name group-name;
}
```

## Hierarchy Level

```
[edit snmp v3 vacm security-to-group security-model (v1 | v2c | usm) security-name]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Map a security name in the specified security model to a named group.

## Options

`security-name` *`security-name`*— Security name to assign to group. If the security model is `usm`, the security name is the username configured at the `[edit snmp v3 usm local-engine user]` hierarchy level.

**Value**—Text

`group-name` *`group-name`*— Group to which the security name is assigned.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

snmp

## Required Editing Level

Basic

# snmp view

## Syntax

`snmp view` *`view-name`* `...`

## Hierarchy Level

`[edit snmp view]`

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Define a MIB view.

## Options

`view-name` *`view-name`*— MIB view name that identifies a group of MIB objects for which to define access. Each MIB object in a view has a common OID prefix. Each object identifier represents a subtree of the MIB object hierarchy.

**Value**—Text

## Required Privilege Level

snmp

## Required Editing Level

Basic

# snmp view *view-name* oid

## Syntax

```
snmp view view-name oid oid {
     (include | exclude);
}
```

## Hierarchy Level

```
[edit snmp view view-name oid]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Specify an object identifier (OID) that represents a subtree of MIB objects for the view.

## Options

`oid` *`oid`*— Object identifier (OID) that represents a subtree of MIB objects.

**Value**—Text

Specifies whether the OID is included in or excluded from the view.

**Value**

- `include`—Include this OID in the view
- `exclude`—Exclude this OID from the view

**Editing Level**—Basic

## Required Privilege Level

snmp

## Required Editing Level

Basic

# SRC Admission Control Plug-In (SRC ACP)

The following table summarizes the SRC command-line interface (SRC CLI) for providing admission control. Configuration statements and operational commands are listed in alphabetical order.

| SRC Admission Control Plug-In (SRC ACP) |
| --- |
| Configuration Statements |
| shared acp configuration acp-options |
| shared acp configuration corba |
| shared acp configuration ldap service-data |
| shared acp configuration ldap subscriber-data |
| shared acp configuration logger |
| shared acp configuration logger name file |
| shared acp configuration logger name syslog |
| shared acp configuration nic-proxy-configuration |
| shared acp configuration nic-proxy-configuration name cache |
| shared acp configuration nic-proxy-configuration name nic-host-selection |
| shared acp configuration nic-proxy-configuration name nic-host-selection blacklisting |
| shared acp configuration nic-proxy-configuration name resolution |
| shared acp configuration nic-proxy-configuration name test-nic-bindings |
| shared acp configuration nic-proxy-configuration name test-nic-bindings key-values |
| shared acp configuration redundancy |
| shared acp configuration scripts-and-classification |
| shared acp configuration snmp |
| shared acp congestion-point-classifier rule |
| shared acp congestion-point-classifier rule name condition |
| shared acp congestion-point-classifier rule name script |
| shared acp group |
| shared admission-control device |
| shared admission-control device name interface |
| shared congestion-points congestion-point-profile |
| shared congestion-points profile |

| |
|---|
| slot number acp |
| slot number acp initial |
| slot number acp initial directory-connection |
| slot number acp initial directory-eventing |
| slot number acp java-orb object-adapter |
| Operational Commands |
| request acp reorganize-backup-database |
| show acp backbone congestion-point congestion-point-expression |
| show acp backbone congestion-point dn |
| show acp backbone service |
| show acp congestion-point by-subscriber ip |
| show acp congestion-point by-subscriber login |
| show acp congestion-point by-subscriber session-id |
| show acp edge congestion-point dn |
| show acp edge congestion-point subscriber-session-id |
| show acp edge subscriber |
| show acp remote-update congestion-point dn |
| show acp remote-update congestion-point name |
| show acp remote-update subscriber |
| show acp statistics device |
| show acp statistics directory |
| show acp statistics general |

# shared acp configuration acp-options

## Syntax

```
shared acp configuration acp-options {
     backup-directory backup-directory;
     mode (edge | backbone | dual);
     event-cache-size event-cache-size;
     overload-method overload-method;
     reservation-timeout reservation-timeout;
     congestion-point-auto-completion;
     tuning-factor tuning-factor;
     subscriber-bandwidth-exceed-message subscriber-bandwidth-exceed-message;
     network-bandwidth-exceed-message network-bandwidth-exceed-message;
     backup-database-maximum-size backup-database-maximum-size;
     remote-update-database-index-keys remote-update-database-index-keys;
     interface-tracking-filter interface-tracking-filter;
     state-sync-bulk-size state-sync-bulk-size;
}
```

## Hierarchy Level

```
[edit shared acp configuration acp-options]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure SRC-ACP operation.

## Options

`backup-directory` *`backup-directory`*— Folder that stores backup information about subscribers, services, and congestion points.

**Value**—Text
**Default**— var/backup
**Editing Level**—Expert

`mode (edge | backbone | dual)`— Regions of the network that SRC-ACP manages.

**Value**— One of the following regions:

- edge—SRC-ACP operates in the edge region of network only
- backbone—SRC-ACP operates in the backbone region of the network only
- dual—SRC-ACP operates in both the edge and backbone regions of network

**Default**— dual
**Editing Level**—Basic

`event-cache-size` *`event-cache-size`*— Number of plug-in events from the SAE that SRC-ACP can store in its cache. Specifying a large number increases the efficiency of SRC-ACP, and minimizes the use of CPU resources; however, the amount of memory available for the cache will depend on the host's resources.

**Value**—Integer in the range 0–2147483647
**Default**— 1000
**Editing Level**—Expert

`overload-method` *`overload-method`*— Specifies how SRC-ACP deals with situations where the components exceed the allocated bandwidth because the service was activated after the authorization was granted.

**Value**— Integer in the range -1–2147483647

- -1—SRC-ACP ignores overload
- Integer greater than or equal to 0—Bandwidth (in bps) by which the maximum may be exceeded

**Default**— 0
**Editing Level**—Basic

`reservation-timeout` *`reservation-timeout`*—(Optional) Time to wait until a bandwidth reservation expires. The reserved bandwidth is reclaimed by SRC-ACP when the reservation expires.

**Value**—Integer in the range 0–2147483647 ms
**Default**— 10000
**Editing Level**—Basic

`congestion-point-auto-completion`—(Optional) Specifies whether SRC-ACP uses the information acquired from the router to determine the congestion points.

**Editing Level**—Basic

`tuning-factor` *`tuning-factor`*—(Optional) Specifies factors that compensate for actual use of bandwidth, as opposed to allocated bandwidth.

**Value**— List of tuning factors, separated by commas; each tuning factor is a

floating number in the range 0–1
**Editing Level**—Basic

`subscriber-bandwidth-exceed-message` *`subscriber-bandwidth-exceed-message`*— Error message that SRC-ACP sends when the subscriber exceeds the allocated bandwidth.

**Value**—Text
**Default**— Subscriber bandwidth exceeded
**Editing Level**—Basic

`network-bandwidth-exceed-message` *`network-bandwidth-exceed-message`*— Error message that SRC-ACP sends when traffic flow exceeds the allocated bandwidth on an interface between the subscriber and the router.

**Value**—Text
**Default**— Network bandwidth exceeded
**Editing Level**—Basic

`backup-database-maximum-size` *`backup-database-maximum-size`*— Value by which the sum of the sizes of the files that contain SRC-ACP data can increment before SRC-ACP reorganizes the files. Reorganizing the files reduces their size. Choose a value that is significantly lower than the capacity of the machine's hard disk.

**Value**— Text string in the format *number*m or *number*g

- *number*m—Size of database in megabytes
- *number*g—Size of database in gigabytes

**Default**— 100m
**Editing Level**—Basic

`remote-update-database-index-keys` *`remote-update-database-index-keys`*— Values to look for in the configuration data. Specifying index keys can improve performance by filtering the data. For information about the values you can specify, see the documentation that describes how to configure SRC-ACP operation.

**Value**— List of attributes, separated by commas
**Default**— interfaceName, routerName, portId
**Editing Level**—Basic

`interface-tracking-filter` *`interface-tracking-filter`*— A filter specifying the interfaces to be tracked by SRC-ACP. Filtering the interface tracking events can improve

performance and can reduce the amount of memory required for keeping the congestion points updated. For information about the values you can specify, see the documentation that describes how to configure SRC-ACP operation.

**Value**— Filter strings in the format of a list of <attribute>=<value> pairs; that can be contained within query operations. For example: (&(interfaceName=*)(interfaceSpeed=1000000))
**Editing Level**—Basic

`state-sync-bulk-size` *`state-sync-bulk-size`*—(Optional) Number of events the SAE sends to SRC-ACP in a single method call during state synchronization.

**Value**—Integer in the range 1–1000
**Default**— 100
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared acp configuration corba

### Syntax

```
shared acp configuration corba {
     acp-ior acp-ior;
     remote-update-ior remote-update-ior;
}
```

### Hierarchy Level

```
[edit shared acp configuration corba]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure CORBA interfaces.

### Options

`acp-ior` *`acp-ior`*— Object reference for SRC-ACP that is exported through either a local file or a Common Object Services (COS) naming service.

**Value**— One of the following references:

- file://*path*—Exports object reference through a local file where *path* is the absolute path to local file
- corbaname::*cosNameServer#KEY*—Exports object reference through COS naming services
  - *cosNameServer*—IP address or Domain Name System (DNS) name of COS naming server
  - *KEY*—Object reference of SRC-ACP
- corbaname:rir#*KEY*—Exports object reference through COS naming service; resolve-initial-references (rir) function finds DNS name of COS naming server

**Default**— file:///var/acp/acp.ior
**Editing Level**—Basic

`remote-update-ior` *`remote-update-ior`*—(Optional) Object reference for the SRC-ACP external interface.

**Value**— One of the following references:

- file://*path*—Exports object reference through a local file where *path* is

the absolute path to local file

- corbaname::*cosNameServer#KEY*—Exports object reference through COS naming services
  - *cosNameServer*—IP address or Domain Name System (DNS) name of COS naming server
  - *KEY*—Object reference of SRC-ACP
- corbaname:rir#*KEY*—Exports object reference through COS naming service; resolve-initial-references (rir) function finds DNS name of COS naming server

**Default**— file:///var/acp/sra.ior
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared acp configuration ldap service-data

## Syntax

```
shared acp configuration ldap service-data {
     edge-congestion-point-dn edge-congestion-point-dn;
     backbone-congestion-point-dn backbone-congestion-point-dn;
     reload-congestion-points;
     congestion-points-eventing;
     server-address server-address;
     server-port server-port;
     dn dn;
     principal principal;
     password password;
     event-dn event-dn;
     directory-eventing;
     polling-interval polling-interval;
     secured-ldap-protocol (ldaps);
}
```

## Hierarchy Level

```
[edit shared acp configuration ldap service-data]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure SRC-ACP connection to the directory that stores information about services.

## Options

`edge-congestion-point-dn` *`edge-congestion-point-dn`*— DN of the directory that contains information about network interfaces for edge congestion points.

**Value**— DN
**Default**— o=AdmissionControl, o=umc
**Editing Level**—Expert

`backbone-congestion-point-dn` *`backbone-congestion-point-dn`*— DN of the directory that contains information about network interfaces for backbone congestion point objects.

**Value**— DN
**Default**— o=CongestionPoints, o=umc
**Editing Level**—Expert

`reload-congestion-points`—(Optional) Specifies whether SRC-ACP detects changes in the backbone congestion point for a service while SRC-ACP is operative.

Enable only when you want to modify a congestion point. Disable when you have modified the congestion point.

**Editing Level**—Basic

`congestion-points-eventing`—(Optional) Enables directory eventing for congestion points.

**Editing Level**—Basic

`server-address` *`server-address`*— List of primary and redundant servers that manage data.

**Value**— List of IP addresses or hostnames separated by spaces
**Default**— 127.0.0.1
**Editing Level**—Normal

`server-port` *`server-port`*— TCP port for the directory.

**Value**—Integer in the range 0–65535
**Default**— 389
**Editing Level**—Normal

`dn` *`dn`*— DN of the root of the directory.

**Value**— List of attribute = value pairs separated by commas
**Editing Level**—Advanced

`principal` *`principal`*— DN used to authorize connections to the directory.

**Value**— List of attribute = value pairs separated by commas
**Default**— cn=umcadmin, o=umc
**Editing Level**—Advanced

`password` *`password`*— Password used to authorize connections to the directory.

**Value**—Secret text
**Default**— admin123
**Editing Level**—Advanced

`event-dn` *`event-dn`*— DN of the directory that contains event information.

**Value**— DN
**Editing Level**—Expert

`directory-eventing`—(Optional) Enable directory eventing.

**Editing Level**—Advanced

`polling-interval` *`polling-interval`*— Time interval at which the SRC component polls the directory.

**Value**— Number of seconds in the range 15–86400
**Default**— 30
**Editing Level**—Advanced

`secured-ldap-protocol (ldaps)`—(Optional) Secured LDAP protocol

**Value**

- `ldaps`—

**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Normal

# shared acp configuration ldap subscriber-data

## Syntax

```
shared acp configuration ldap subscriber-data {
     congestion-points-eventing;
     server-address server-address;
     server-port server-port;
     dn dn;
     principal principal;
     password password;
     event-dn event-dn;
     directory-eventing;
     polling-interval polling-interval;
     secured-ldap-protocol (ldaps);
}
```

## Hierarchy Level

```
[edit shared acp configuration ldap subscriber-data]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure SRC-ACP connection to the directory that stores subscriber information.

## Options

`congestion-points-eventing`—(Optional) Enables directory eventing for congestion points.

**Editing Level**—Basic

`server-address` *`server-address`*— List of primary and redundant servers that manage data.

**Value**— List of IP addresses or hostnames separated by spaces
**Default**— 127.0.0.1
**Editing Level**—Normal

`server-port` *`server-port`*— TCP port for the directory.

**Value**—Integer in the range 0–65535
**Default**— 389
**Editing Level**—Normal

`dn` *`dn`*— DN of the root of the directory.

**Value**— List of attribute = value pairs separated by commas
**Editing Level**—Advanced

`principal` *`principal`*— DN used to authorize connections to the directory.

**Value**— List of attribute = value pairs separated by commas
**Default**— cn=umcadmin, o=umc
**Editing Level**—Advanced

`password` *`password`*— Password used to authorize connections to the directory.

**Value**—Secret text
**Default**— admin123
**Editing Level**—Advanced

`event-dn` *`event-dn`*— DN of the directory that contains event information.

**Value**— DN
**Editing Level**—Expert

`directory-eventing`—(Optional) Enable directory eventing.

**Editing Level**—Advanced

`polling-interval` *`polling-interval`*— Time interval at which the SRC component polls the directory.

**Value**— Number of seconds in the range 15–86400
**Default**— 30
**Editing Level**—Advanced

`secured-ldap-protocol (ldaps)`—(Optional) Secured LDAP protocol

**Value**

- `ldaps`—

**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Normal

# shared acp configuration logger

### Syntax

`shared acp configuration logger` *`name`* `...`

### Hierarchy Level

`[edit shared acp configuration logger]`

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure the logging destination.

### Options

`name` *`name`*— Name of logging destination.

**Value**—Text

### Required Privilege Level

system

### Required Editing Level

Basic

# shared acp configuration logger *name* file

## Syntax

```
shared acp configuration logger name file {
     filter filter;
     device-filter-key device-filter-key;
     filename filename;
     rollover-filename rollover-filename;
     maximum-file-size maximum-file-size;
}
```

## Hierarchy Level

```
[edit shared acp configuration logger name file]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure logging of messages to a file.

`filter filter`—(Optional) Filter to define which event messages the software logs or ignores. Filters can specify the logging level, such as debug, or can specify expressions. For information about expressions, see the documentation that describes how to configure logging.

**Value**— Log filter
**Default**— The default value is different for each type of component.
**Editing Level**—Basic

`device-filter-key device-filter-key`—(Optional) Filter the DEBUG logs specific to network device. The filtering can be done based on combinations of parameters namely router-name/interface-name/login-name. These parameters can be associated using AND (&) or OR (|) operators. Syntax: set device-filter-key (router-name=<val> & interface-name=<val> | login-name=<val> All three parameters are optional. Absence of a parameter would indicate match ANY. Example: set device-filter-key (router-name=<val>) would indicate match debug logs based on the router-name only irrespective of the interface-name or login-name. Note: 1. "device-filter-key" will NOT filter info/error/warning logs. 2. This version supports network device specific logging for COPs drivers only

**Value**— Log network device filter
**Default**— The default value is different for each type of component.
**Editing Level**—Basic

`filename filename`— Absolute path of the filename that contains the current logs.

**Note:** Make sure that the user under which the J2EE application server or Web application server runs has write access to this folder. If this user does not have write access to the default folder, configure the component or application to write logs in folders to which the user has write access.

**Value**— Filename
**Default**— By default, SRC components and applications write log files in the folder in which the component or application is started.
**Editing Level**—Basic

`rollover-filename` *`rollover-filename`*—(Optional) Absolute path of the filename that contains the log history. When the log file reaches the maximum size, the software closes the log file and renames it with the name you specify for the rollover file. If a previous rollover file exists, the software overwrites it. The software then reopens the log file and continues to save event messages in it.

**Value**— Path of filename

Example—/opt/UMC/sae/var/log/sae.alt

**Default**— The default value is different for each type of component.
**Editing Level**—Normal

`maximum-file-size` *`maximum-file-size`*—(Optional) Maximum size of the log file and the rollover file.

Do not set the maximum file size to a value greater than the available disk space.

**Value**—Integer in the range 0–10000000 kbytes
**Default**— 1000000
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Basic

# shared acp configuration logger *name* syslog

## Syntax

```
shared acp configuration logger name syslog {
     filter filter;
     host host;
     port port;
     facility facility;
     format format;
}
```

## Hierarchy Level

```
[edit shared acp configuration logger name syslog]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure logging of messages to system logging.

`filter` *`filter`*—(Optional) Filter to define which event messages the software logs or ignores. Filters can specify the logging level, such as debug, or can specify expressions. For information about expressions, see the documentation that describes how to configure logging.

**Value**— Log filter
**Default**— The default value is different for each type of component.
**Editing Level**—Basic

`host` *`host`*— IP address or name of a host that collects event messages by means of a standard system logging daemon.

**Value**— IP address or hostname
**Default**—loghost
**Editing Level**—Basic

`port` *`port`*—(Optional) Port number for system logging daemon.

**Value**— Port number in the range of 0–65535
**Default**— 514
**Editing Level**—Basic

`facility` *`facility`*

—(Optional) Type of system log in accordance with the system logging protocol.

**Value**—Integer in the range 0–23
**Default**— 3
**Editing Level**—Advanced

`format` *`format`*—(Optional) MessageFormat string that specifies how the information in an event message is printed. (The strings {#} are replaced with the log information [...]).

**Value**— MessageFormat string as specified in http://java.sun.com/j2se/1.4.2/docs/api/java/text/MessageFormat.html.

The fields available for events are:

- 0—Time and date of the event
- 1—Name of the thread generating the event
- 2—Text message of the event
- 3—Category of the event
- 4—Priority of the event

**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Basic

# shared acp configuration nic-proxy-configuration

## Syntax

```
shared acp configuration nic-proxy-configuration name {
}
```

## Hierarchy Level

```
[edit shared acp configuration nic-proxy-configuration]
```

## Options

`name` *`name`*—

**Value**—Text

## Required Privilege Level

system

## Required Editing Level

Basic

# shared acp configuration nic-proxy-configuration *name* cache

### Syntax

```
shared acp configuration nic-proxy-configuration name cache {
     cache-size cache-size;
     cache-cleanup-interval cache-cleanup-interval;
     cache-entry-age cache-entry-age;
}
```

### Hierarchy Level

```
[edit shared acp configuration nic-proxy-configuration name cache]
```

### Description

Configure the NIC proxy cache properties. You can modify cache properties for the NIC proxy to optimize the resolution performance for your network configuration and system resources. Typically, you can use the default settings for the cache properties.

`cache-size` *`cache-size`*—(Optional) Maximum size of the cache in which the NIC proxy retains data. If you decrease the cache size or disable the cache while the NIC proxy is running, the NIC proxy removes entries in order of descending age until the cache size meets the new limit.

**Value**— Integer in the range 0–2147483647
**Default**—10000
**Editing Level**—Advanced

`cache-cleanup-interval` *`cache-cleanup-interval`*— Time interval at which the NIC proxy removes expired entries from its cache.

**Value**— Number of seconds in the range 5–2147483
**Default**—15
**Editing Level**—Advanced

`cache-entry-age` *`cache-entry-age`*—(Optional) Maximum time that the NIC proxy can cache an entry. The NIC proxy compares this property with the life expectancy of each entry and uses the lower value to determine when to remove the entry.

**Value**— Number of seconds in the range 0–4294967295

- 0 or unspecified—Life expectancy of the data, which determines expiration of data
- Other values—Actual time that the NIC proxy caches entries

**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Advanced

# shared acp configuration nic-proxy-configuration *name* nic-host-selection

### Syntax

```
shared acp configuration nic-proxy-configuration name nic-host-selection {
     groups [groups...];
     selection-criteria (roundRobin | randomPick | priorityList);
}
```

### Hierarchy Level

```
[edit shared acp configuration nic-proxy-configuration name nic-host-selection]
```

### Description

Configure the mechanism that a NIC proxy uses to select NIC system if multiple systems are available. You use NIC host selection when you use NIC replication.

`groups [groups...]`—(Optional) List of groups of NIC hosts that the NIC proxy can contact for resolution requests.

**Value**— Names of groups.
**Default**— No value
**Editing Level**—Normal

`selection-criteria (roundRobin | randomPick | priorityList)`— Selection criteria that the NIC proxy uses to determine which NIC host to contact. Configure selection criteria if you configure more than one group.

**Value**— One of the following criteria:

- roundRobin—NIC proxy selects NIC hosts in a fixed, cyclic order. The NIC proxy always selects the next host in the list.
- randomPick—NIC proxy selects NIC hosts randomly from the list.
- priorityList—NIC proxy selects NIC hosts according to their assigned priorities in the list. If the host with the highest priority in the list is not available, the NIC proxy tries the host with the next-highest priority, and so on.

Use round-robin or random pick to distribute resolution requests among NIC hosts. Use priority list if you prefer to use a particular NIC host; for example, you may reduce operating cost by using a local NIC host.
**Default**— roundRobin
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Normal

# shared acp configuration nic-proxy-configuration *name* nic-host-selection blacklisting

### Syntax

```
shared acp configuration nic-proxy-configuration name nic-host-selection blacklisting
{
     try-next-system-on-error;
     number-of-retries-before-blacklisting number-of-retries-before-blacklisting;
     blacklist-retry-interval blacklist-retry-interval;
}
```

### Hierarchy Level

```
[edit shared acp configuration nic-proxy-configuration name nic-host-
selection blacklisting]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure how to handle nonresponsive NIC hosts. When a NIC host does not respond, it is blacklisted which means that other NIC hosts are contacted until the blacklisted host becomes available again.

### Options

`try-next-system-on-error`—(Optional) Specifies whether or not the NIC proxy should contact the next specified NIC host if a NIC host is determined to be unavailable. Configure this property only if you configure more than one group.

**Default**—true
**Editing Level**—Normal

`number-of-retries-before-blacklisting` *`number-of-retries-before-blacklisting`*— Number of times the NIC proxy tries to communicate with a NIC host before the NIC proxy stops communicating with the NIC host for a period of time.

**Value**—Integer in the range 0–2147483647
**Default**—3
**Editing Level**—Normal

`blacklist-retry-interval` *`blacklist-retry-interval`*— Interval at which the NIC proxy attempts to connect to an unavailable NIC host.

**Value**—Integer in the range 15–2147483647 s
**Default**—15
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Basic

# shared acp configuration nic-proxy-configuration *name* resolution

### Syntax

```
shared acp configuration nic-proxy-configuration name resolution {
     resolver-name resolver-name;
     key-type key-type;
     value-type value-type;
     expect-multiple-values;
     constraints constraints;
}
```

### Hierarchy Level

```
[edit shared acp configuration nic-proxy-configuration name resolution]
```

### Description

Configure properties for a NIC proxy (NIC locator), the NIC component that requests information on behalf of an application.

`resolver-name` *`resolver-name`*— NIC resolver that the NIC proxy uses. This resolver must be the same as one that is configured on the NIC host.

**Value**— Path to the NIC resolver.

Example—/realms/ip/A1,/realms/dn/A1.

**Default**— No value
**Editing Level**—Basic

`key-type` *`key-type`*— Type of data used that the key provides for the NIC resolution. You can provide a qualifier to a data type to distinguish between different instances of a data type in a resolution scenario, or to provide information about a data type to clarify the use of that data type in a resolution.

**Value**— One of the following types:

- Ip —Subscriber's IP address
- Vr—Virtual router
- Interface—Name of router's interface
- InterfaceId—Identifier of an interface on the router
- Dn—LDAP distinguished name for subscriber
- LoginName—Subscriber login ID
- AnyString—Other information

To qualify data types, enter a qualifier within parentheses.

Example—LoginName(username).

**Default**— No value
**Editing Level**—Basic

`value-type` *`value-type`*— Type of value to be returned in the resolution. The value type varies according to the application that uses the NIC proxy.

**Value**— One of the following types:

- SaeId—SAE server ID
- LoginName—Subscriber login ID
- AnyString—Other information

To qualify data types, enter a qualifier within parentheses.

Example—LoginName(username).

**Default**— No value
**Editing Level**—Basic

`expect-multiple-values`—(Optional) Specifies whether or not the key can have multiple corresponding values.

**Editing Level**—Basic

`constraints` *`constraints`*—(Optional) Data type that a resolver uses during the resolution process. A constraint represents a condition that must or may be satisfied before the next stage of the resolution process can proceed.

Configure a constraint only if the constraint will be provided by the application in the resolution request. Typically, you do not need to configure constraints.

**Value**— Data types of constraints specified for the NIC resolution. Separate data types with commas.
**Default**— No value
**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Normal

# shared acp configuration nic-proxy-configuration *name* test-nic-bindings

### Syntax

```
shared acp configuration nic-proxy-configuration name test-nic-bindings {
     use-test-bindings;
}
```

### Hierarchy Level

```
[edit shared acp configuration nic-proxy-configuration name test-nic-bindings]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure key-value mappings to be used to test a NIC resolution.

### Options

`use-test-bindings`—(Optional) Test the NIC resolutions without having to configure or run a NIC host. The values returned are those configured in the key-values property.

**Default**—false
**Editing Level**—Basic

### Required Privilege Level

system

### Required Editing Level

Basic

# shared acp configuration nic-proxy-configuration *name* test-nic-bindings key-values

## Syntax

```
shared acp configuration nic-proxy-configuration name test-nic-bindings key-
values name {
     value;
}
```

## Hierarchy Level

```
[edit shared acp configuration nic-proxy-configuration name test-nic-bindings key-
values]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure keys and associated values to use for testing. Define all of values to be returned for specified keys.

## Options

`name` *`name`*—

**Value**—Text

*`value`*—

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Advanced

# shared acp configuration redundancy

## Syntax

```
shared acp configuration redundancy {
     enable-redundancy;
     local-ior local-ior;
     remote-ior remote-ior;
     ignore-user-tracking-out-of-sync;
     community-heartbeat community-heartbeat;
     community-acquire-timeout community-acquire-timeout;
     community-blackout-timeout community-blackout-timeout;
     redundant-naming-service redundant-naming-service;
}
```

## Hierarchy Level

```
[edit shared acp configuration redundancy]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure redundancy and state synchronization for SRC-ACP.

## Options

`enable-redundancy`—(Optional) Enables SRC-ACP redundancy.

**Editing Level**—Basic

`local-ior` *`local-ior`*— In a redundant SRC-ACP configuration, exports the object reference for this SRC-ACP (local interface) through a Common Object Services (COS) naming service.

**Value**— One of the following references:

- corbaname::*cosNameServer#KEY*—Exports object reference through COS naming services
  - *cosNameServer*—IP address or Domain Name System (DNS) name of COS naming server
  - *KEY*—Object reference of SRC-ACP
- corbaname:rir#*KEY*—Exports object reference through COS naming service; resolve-initial-references (rir) function finds DNS name of COS naming server

For example: corbaname::coshost#acp.redundancy.primary
**Editing Level**—Basic

`remote-ior` *`remote-ior`*— In a redundant SRC-ACP configuration, resolves the object reference for the other SRC-ACP (remote interface) through a Common Object Services (COS) naming service. For redundancy, the remote IOR value of one SRC-ACP must match the local IOR value of the other SRC-ACP.

**Value**— One of the following references:

- corbaname::*cosNameServer#KEY*—Exports object reference through COS naming services
  - *cosNameServer*—IP address or Domain Name System (DNS) name of COS naming server
  - *KEY*—Object reference of SRC-ACP
- corbaname:rir#*KEY*—Exports object reference through COS naming service; resolve-initial-references (rir) function finds DNS name of COS naming server

For example: corbaname::coshost#acp.redundancy.backup
**Editing Level**—Basic

`ignore-user-tracking-out-of-sync`—(Optional) Specifies whether user tracking events should be ignored when they raise an OutOfSync exception to the SAE when state synchronization is enabled. SRC-ACP raises an OutOfSync exception when SRC-ACP handles service tracking or authentication events without receiving a user start event first.

**Default**— false
**Editing Level**—Basic

`community-heartbeat` *`community-heartbeat`*—(Optional) Time interval for community members to check each other's availability when both redundancy and state synchronization are enabled.

**Value**—Integer in the range 0–2147483647 s
**Default**— 30
**Editing Level**—Basic

`community-acquire-timeout` *`community-acquire-timeout`*—(Optional) Time to wait before trying to reacquire the distributed lock when both redundancy and state synchronization are enabled.

**Value**—Integer in the range 0–2147483647 s
**Default**— 15
**Editing Level**—Basic

`community-blackout-timeout` *`community-blackout-timeout`*

—(Optional) Time to wait before regaining control when both redundancy and state synchronization are enabled.

**Value**—Integer in the range 0–2147483647 s
**Default**— 30
**Editing Level**—Basic

`redundant-naming-service` *`redundant-naming-service`*—(Optional) In a redundant SRC-ACP configuration, exports the object reference for the backup naming service through a local file or COS naming service. The primary SRC-ACP registers the IOR and redundancy IOR to both naming services, while the secondary SRC-ACP registers the redundancy IOR to both naming services.

**Value**— One of the following references:

- file:*//path*—Exports object reference through a local file where *path* is the absolute path to local file
- corbaname::*cosNameServer#KEY*—Exports object reference through COS naming services
  - *cosNameServer*—IP address or Domain Name System (DNS) name of COS naming server
  - *KEY*—Object reference of SRC-ACP
- corbaname:rir*#KEY*—Exports object reference through COS naming service; resolve-initial-references (rir) function finds DNS name of COS naming server

**Default**— None
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared acp configuration scripts-and-classification

### Syntax

```
shared acp configuration scripts-and-classification {
     script-factory-class script-factory-class;
     classification-factory-class classification-factory-class;
     classification-script classification-script;
     congestion-point-profile-script congestion-point-profile-script;
     extension-path extension-path;
}
```

### Hierarchy Level

```
[edit shared acp configuration scripts-and-classification]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure SRC-ACP scripts and classification.

### Options

`script-factory-class` *`script-factory-class`*— Script factory class name.

**Value**—Text
**Default**— net.juniper.smgt.acp.classify.ScriptFactory
**Editing Level**—Expert

`classification-factory-class` *`classification-factory-class`*— Congestion point classifier factory class name.

**Value**—Text
**Default**— net.juniper.smgt.acp.classify.ClassifyCPFactory
**Editing Level**—Expert

`classification-script` *`classification-script`*— Class name for congestion point classification.

**Value**—Text
**Default**— cpClassify
**Editing Level**—Expert

`congestion-point-profile-script` *`congestion-point-profile-script`*— Class name for generating the congestion point DN by using the congestion point profile.

**Value**—Text
**Default**— cpProfile
**Editing Level**—Expert

`extension-path` *`extension-path`*— Extension class path for classes not located in the /opt/UMC/acp/lib directory.

**Value**—Text
**Editing Level**—Basic

**Required Privilege Level**

system

**Required Editing Level**

Advanced

# shared acp configuration snmp

## Syntax

```
shared acp configuration snmp {
     selector [selector...];
     minor-threshold minor-threshold;
     major-threshold major-threshold;
     critical-threshold critical-threshold;
}
```

## Hierarchy Level

```
[edit shared acp configuration snmp]
```

## Release Information

Statement introduced in SRC Release 4.1.0

## Description

Configure Congestion Point usage traps for SRC-ACP.

## Options

`selector [selector...]`—(Optional) Regular expressions for Congestion Point DNs.

**Value**—Text
**Editing Level**—Basic

`minor-threshold minor-threshold`—(Optional) Configure minor threshold for congestion point usage trap.

**Value**—Integer in the range 1–100
**Default**— 75
**Editing Level**—Basic

`major-threshold major-threshold`—(Optional) Configure major threshold for congestion point usage trap.

**Value**—Integer in the range 1–100
**Default**— 85
**Editing Level**—Basic

`critical-threshold critical-threshold`—(Optional) Configure critical threshold for congestion point usage trap.

**Value**—Integer in the range 1–100
**Default**— 95
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared acp congestion-point-classifier rule

## Syntax

```
shared acp congestion-point-classifier rule name {
     target target;
}
```

## Hierarchy Level

```
[edit shared acp congestion-point-classifier rule]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure a congestion point classification script.

## Options

`name` *`name`*— Name of a congestion point classification script.

**Value**—Text

`target` *`target`*—(Optional) Result of the classification script. The result is the DN of a congestion point in the directory or an LDAP query that uniquely identifies a congestion point entry in the directory.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared acp congestion-point-classifier rule *name* condition

### Syntax

```
shared acp congestion-point-classifier rule name condition criteria ...
```

### Hierarchy Level

```
[edit shared acp congestion-point-classifier rule name condition]
```

### Release Information

Statement introduced in SRC Release 1.0.0

### Description

Configure classification criteria that is used to find a target.

### Options

`criteria` *`criteria`*— Classification criteria. For information about configuring classification criteria, see *Classifying Congestion Points* in the *SRC PE Network Guide*.

**Value**— Classification criteria are organized by putting one criterion per line. A criterion is joined with the previous criterion by:

- OR if the line does not contain a prefix or if it is prefixed with a | (pipe) character. A criterion joined by OR is examined only if the previous conditions have not produced a positive match. If any of the criteria joined by OR matches, the target is selected.
- AND if the line is prefixed with an & (ampersand) character. A criterion joined by AND is examined only if the previous condition matches.

You can use glob or regular expression matching to configure each target's criteria.

### Required Privilege Level

system

### Required Editing Level

Basic

# shared acp congestion-point-classifier rule *name* script

## Syntax

```
shared acp congestion-point-classifier rule name script {
     script-value;
     include include;
}
```

## Hierarchy Level

```
[edit shared acp congestion-point-classifier rule name script]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Options

*`script-value`*—(Optional) Script target. A script that can contain definitions of custom functions that can be called during the matching process. The complete content of the script is interpreted when the classifier is initially loaded. Because you can insert code into a script target, you can use the classification script to perform various tasks.

**Value**— Script enclosed in quotation marks.
**Default**— No value
**Editing Level**—Basic

`include` *`include`*—(Optional) Script reference

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared acp group

## Syntax

```
shared acp group name ...
```

## Hierarchy Level

```
[edit shared acp group]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure group of SRC-ACP configuration properties.

## Options

`name` *`name`*— Name of an SRC-ACP configuration.

**Value**—Text

## Required Privilege Level

system

## Required Editing Level

Basic

# shared admission-control device

## Syntax

```
shared admission-control device name {
     description description;
}
```

## Hierarchy Level

```
[edit shared admission-control device]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure the locations of congestion points in the directory.

## Options

`name` *`name`*— Network device name.

**Value**—Text

`description` *`description`*—(Optional) Network device description.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared admission-control device *name* interface

## Syntax

```
shared admission-control device name interface name {
     description description;
     upstream-provisioned-rate upstream-provisioned-rate;
     downstream-provisioned-rate downstream-provisioned-rate;
     upstream-background-bandwidth [upstream-background-bandwidth...];
     downstream-background-bandwidth [downstream-background-bandwidth...];
     action-type (url | python | java-class | java-archive);
     action-class-name action-class-name;
     action-file-url action-file-url;
     action-parameters [action-parameters...];
     action-file-name action-file-name;
     detect-link-rate;
}
```

## Hierarchy Level

```
[edit shared admission-control device name interface]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure the network interfaces that represent locations of congestion points in the directory.

## Options

`name` *`name`*— Interface name.

**Value**—Text

`description` *`description`*—(Optional) Network interface description.

**Value**—Text
**Editing Level**—Basic

`upstream-provisioned-rate` *`upstream-provisioned-rate`*—(Optional) Upstream provisioned rate.

**Value**—Integer in the range 0–9223372036854775807 bps
**Editing Level**—Basic

`downstream-provisioned-rate` *`downstream-provisioned-rate`*—(Optional)

Downstream provisioned rate.

**Value**—Integer in the range 0–9223372036854775807 bps
**Editing Level**—Basic

`upstream-background-bandwidth [`*`upstream-background-bandwidth...`*`]`—(Optional) Upstream background bandwidth.

**Value**—Integer in the range 0–9223372036854775807 bps
**Editing Level**—Basic

`downstream-background-bandwidth [`*`downstream-background-bandwidth...`*`]`—(Optional) Downstream background bandwidth.

**Value**—Integer in the range 0–9223372036854775807 bps
**Editing Level**—Basic

`action-type (url | python | java-class | java-archive)`—(Optional) Type of action congestion point. Determines how the contents of the "action-file-url" attribute will be interpreted.

**Value**

- `url`— The value of attribute "action-file-url" is a URL that specifies where to find a Java archive (.jar file) containing the script service implementation.
- `python`— The value of attribute "action-file-url" is Python code.
- `java-class`— The value of attribute "action-file-url" is the binary contents of a compiled Java class file (.class file).
- `java-archive`— The value of attribute "action-file-url" is the binary contents of a Java archive file (.jar file).

**Editing Level**—Basic

`action-class-name` *`action-class-name`*—(Optional) Name of Java or Python class implementing the action congestion point. The ACP instantiates the named class.

**Value**—Text
**Editing Level**—Basic

`action-file-url` *`action-file-url`*—(Optional) If the action type is "URL", this attribute contains the URL of a Java archive (.jar) file containing the action congestion point

implementation. Otherwise, this attribute contains the action congestion point implementation itself (i.e. python code, the binary contents of a compiled .class file, or the binary contents of a .jar file).

**Editing Level**—Basic

`action-parameters [action-parameters...]`—(Optional) Parameters used by the action congestion point.

**Value**— Text string in the format of a list of <attribute> = <value> pairs
**Editing Level**—Basic

`action-file-name action-file-name`—(Optional) Name of the local file to load into the "action-file-url" attribute. The file needs to exist locally. Its content is read and loaded into the "action-file-url" attribute.

**Value**—Text
**Editing Level**—Basic

`detect-link-rate`—(Optional) To identify the possibility of getting the actual link rate information for a congestion point via L2C or other solutions developed later. By default , it is false for the sake of backward compatibility.

**Default**—false
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared congestion-points congestion-point-profile

## Syntax

```
shared congestion-points congestion-point-profile name {
     expression [expression...];
}
```

## Hierarchy Level

```
[edit shared congestion-points congestion-point-profile]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure congestion point profile.

## Options

`name` *`name`*— Congestion point profile name.

**Value**—Text

`expression [`*`expression`*`...]`—(Optional) Congestion point expression.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# shared congestion-points profile

## Syntax

```
shared congestion-points profile name {
     interface [interface...];
}
```

## Hierarchy Level

```
[edit shared congestion-points profile]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure congestion point.

## Options

`name` *`name`*— Congestion point name.

**Value**—Text

`interface [`*`interface...`*`]`—(Optional) Congestion point reference.

**Value**—Text
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# slot *number* acp

## Syntax

```
slot number acp {
     java-runtime-environment java-runtime-environment;
     java-heap-size java-heap-size;
     java-garbage-collection-options java-garbage-collection-options;
     base-dn base-dn;
     snmp-agent;
     shared shared;
}
```

## Hierarchy Level

`[edit slot number acp]`

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure local properties for SRC-ACP.

## Options

`java-runtime-environment` *`java-runtime-environment`*— Path to the Java Runtime Environment (JRE). The SRC software requires a JRE that conforms to the Java 2 specification.

**Value**—Text
**Default**— *../jre/bin/java*
**Editing Level**—Expert

`java-heap-size` *`java-heap-size`*— Maximum amount of Java heap (memory) available to the JRE.

**Value**— Number of megabytes in the format *integer*m
**Default**— 64m
**Editing Level**—Advanced

`java-garbage-collection-options` *`java-garbage-collection-options`*— Garbage collection functionality of the Java Virtual Machine.

**Value**—
**Default**— -Xbatch -XX:+UseConcMarkSweepGC -XX:CMSInitiatingOccupancyFraction=80 -XX:NewRatio=5 -

XX:+UseParNewGC -XX:SurvivorRatio=1 -XX:InitialTenuringThreshold=8 -XX:MaxTenuringThreshold=10 -XX:TargetSurvivorRatio=90 -XX:+UseCMSCompactAtFullCollection -XX:CMSFullGCsBeforeCompaction=0 -XX:+CMSClassUnloadingEnabled -XX:+CMSParallelRemarkEnabled
**Editing Level**—Advanced

`base-dn` *`base-dn`*— DN of the root of the SDX data in the directory.

If you are storing non-SDX data in the directory, and that data changes frequently whereas the SDX data does not, you may need to adjust the default value to improve performance. For optimal performance, set the value to the DN of an entry superior to both the SDX data and the changing non-SDX data.

**Value**— DN
**Editing Level**—Advanced

`snmp-agent`—(Optional) Enables SRC-ACP to communicate with the SNMP agent.

**Editing Level**—Basic

`shared` *`shared`*— Shared configuration object that holds most of the SRC-ACP specific configuration.

**Value**— Name of the object in the format "/<path>". If the <path> contains multiple levels, the levels are separated by a slash (/). The effective configuration is combined by all configuration objects in the path, with more specific configuration in the lower levels of the path.
**Default**— /config
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# slot *number* acp initial

## Syntax

```
slot number acp initial {
     static-dn static-dn;
     dynamic-dn dynamic-dn;
}
```

## Hierarchy Level

```
[edit slot number acp initial]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Configure initial properties for SRC components.

## Options

`static-dn` *`static-dn`*—(Optional) Location of administrator-defined configuration data in the directory.

**Value**—Text
**Default**—ou=staticConfiguration,ou=Configuration,o=Management,o=umc
**Editing Level**—Expert

`dynamic-dn` *`dynamic-dn`*—(Optional) Location of programmatically-defined configuration data in the directory.

**Value**—Text
**Default**—ou=dynamicConfiguration,ou=Configuration,o=Management,o=umc

**Editing Level**—Expert

## Required Privilege Level

system

## Required Editing Level

Basic

# slot *number* acp initial directory-connection

## Syntax

```
slot number acp initial directory-connection {
     url url;
     backup-urls [backup-urls...];
     principal principal;
     credentials credentials;
     protocol (ldaps);
     timeout timeout;
     check-interval check-interval;
     blacklist;
     snmp-agent;
}
```

## Hierarchy Level

```
[edit slot number acp initial directory-connection]
```

## Description

Configure properties for the directory connection.

## Options

`url` *`url`*—(Optional) URL that identifies the location of the primary directory server.

**Value**— URL
**Default**—ldap://127.0.0.1:389
**Editing Level**—Basic

`backup-urls [`*`backup-urls...`*`]`—(Optional) URLs that identify the locations of backup directory servers. Backup servers are used if the primary directory server is not accessible.

**Value**— List of URLs
**Editing Level**—Basic

`principal` *`principal`*— DN that the SRC component uses for authentication to access the directory.

**Value**— DN.

When you specify the DN, you can use <base> to indicate the base DN.

**Editing Level**—Basic

`credentials` *`credentials`*— Password with which the SRC component accesses the directory.

**Value**— Password
**Editing Level**—Basic

`protocol (ldaps)`—(Optional) Security protocol used to connect to the directory. If you do not configure a security protocol, plain socket is used.

**Value**

- `ldaps`— LDAPS which uses SSL.

**Editing Level**—Expert

`timeout` *`timeout`*—(Optional) Maximum amount of time during which the directory must respond to a connection request.

**Value**—Integer in the range 1–2147483647 s
**Default**—10
**Editing Level**—Expert

`check-interval` *`check-interval`*—(Optional) Time interval at which the directory monitoring system verifies its connection to the directory. If the directory connection fails after this interval, the directory monitoring system initiates a connection to another directory.

**Value**—Integer in the range 15–2147483647 s
**Default**—60
**Editing Level**—Expert

`blacklist`—(Optional) Specifies whether the directory monitoring system prevents connection to a directory if the directory fails to respond during 10 polling intervals.

**Default**—false
**Editing Level**—Basic

`snmp-agent`—(Optional) Specifies whether the SRC SNMP agent exports MIBs for this directory connection.

**Default**—false
**Editing Level**—Expert

## Required Privilege Level

system

## Required Editing Level

Basic

# slot *number* acp initial directory-eventing

## Syntax

```
slot number acp initial directory-eventing {
     eventing;
     signature-dn signature-dn;
     polling-interval polling-interval;
     event-base-dn event-base-dn;
     dispatcher-pool-size dispatcher-pool-size;
}
```

## Hierarchy Level

```
[edit slot number acp initial directory-eventing]
```

## Release Information

Statement introduced in SRC Release 1.0.0

## Description

Change configuration for directory eventing properties. In most cases, you can use the default configuration for these properties.

## Options

`eventing`—(Optional) Enable an SRC component to poll the directory for changes.

**Default**—true
**Editing Level**—Normal

`signature-dn` *`signature-dn`*—(Optional) DN of the directory entry that specifies the usedDirectory attribute for the SRC CLI. The usedDirectory attribute identifies the vendor of the directory server.

**Value**— DN
**Default**—o=umc
**Editing Level**—Expert

`polling-interval` *`polling-interval`*—(Optional) Interval at which an SRC component polls the directory to check for directory changes.

**Value**—Integer in the range 15–2147483647 s
**Default**—30
**Editing Level**—Normal

`event-base-dn` *`event-base-dn`*—(Optional) DN of an entry superior to the data associated with an SRC component in the directory.

If you are storing non-SRC data in the directory, and that data changes frequently whereas the SRC data does not, you may need to adjust the default value to improve performance. For optimal performance, set the value to the DN of an entry superior to both the SRC data and the changing non-SRC data.

**Value**— DN
**Default**—o=UMC
**Editing Level**—Expert

`dispatcher-pool-size` *`dispatcher-pool-size`*—(Optional) Number of directory change notifications that can be sent simultaneously to the SRC component.

**Value**—Integer in the range 0–2147483647
**Default**—1
**Editing Level**—Expert

## Required Privilege Level

system

## Required Editing Level

Basic

# slot *number* acp java-orb object-adapter

## Syntax

```
slot number acp java-orb object-adapter {
     address address;
}
```

## Hierarchy Level

```
[edit slot number acp java-orb object-adapter]
```

## Release Information

Statement introduced in SRC-3.2.0 Release

## Description

Object adapter internet address configuration

## Options

`address` *`address`*—(Optional) Object Adapter Internet Address: IP address on multi-homed host.

**Value**— IP address
**Default**— No value
**Editing Level**—Basic

## Required Privilege Level

system

## Required Editing Level

Basic

# request acp reorganize-backup-database

## Syntax

```
request acp reorganize-backup-database <slot slot>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Reorganize the files that contain SRC-ACP data about subscribers, services, and congestion points. This action reduces the sizes of these files.

## Options

`slot` *`slot`*—(Optional) Number of the slot for which you want to configure values.

**Value**— Currently, the chassis has only one slot. The valid value is 0.
**Default**—0

## Required Privilege Level

maintenance

# show acp backbone congestion-point congestion-point-expression

### Syntax

```
show acp backbone congestion-point congestion-point-expression <slot slot> <virtual-
router-name virtual-router-name> <service-name service-name> <interface-name
interface-name> <interface-description interface-description> <interface-alias
interface-alias> <nas-port-id nas-port-id> < (brief) >
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Display congestion point by service congestion point expression.

### Options

`slot` *`slot`*—(Optional) Number of the slot for which you want to configure values.

**Value**— Currently, the chassis has only one slot. The valid value is 0.
**Default**—0

`virtual-router-name` *`virtual-router-name`*—(Optional) Name of virtual router from which to list congestion points.

**Value**— Virtual router name
**Default**— No value

`service-name` *`service-name`*—(Optional) Name of service used by backbone service to generate congestion points.

**Value**— Service name
**Default**— No value

`interface-name` *`interface-name`*—(Optional) Name of interface related to congestion points.

**Value**— Interface name
**Default**— No value

`interface-description` *`interface-description`*—(Optional) Description of interface used by backbone service to generate congestion points.

**Value**— Interface description
**Default**— No value

`interface-alias` *`interface-alias`*—(Optional) Interface alias used by backbone service to generate congestion points.

**Value**— Interface alias
**Default**— No value

`nas-port-id` *`nas-port-id`*—(Optional) Interface NAS port ID used by backbone service to generate congestion points.

**Value**— NAS port ID
**Default**— No value

(Optional) Output style.

**Value**

- `brief`— Display congestion point attributes.

**Default**—detail

## Required Privilege Level

view

# show acp backbone congestion-point dn

## Syntax

```
show acp backbone congestion-point dn <slot slot> <congestion-point-dn congestion-point-dn> <virtual-router-name virtual-router-name> < (brief) >
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display congestion point by DN.

## Options

`slot` *`slot`*—(Optional) Number of the slot for which you want to configure values.

**Value**— Currently, the chassis has only one slot. The valid value is 0.
**Default**—0

`congestion-point-dn` *`congestion-point-dn`*—(Optional) DN of congestion point for which you want to list all matching congestion points.

**Value**— All or part of the congestion point DN.
**Default**— No value

`virtual-router-name` *`virtual-router-name`*—(Optional) Name of virtual router from which to list congestion points.

**Value**— Virtual router name
**Default**— No value

(Optional) Output style.

**Value**

- `brief`— Display congestion point DN.

**Default**—detail

## Required Privilege Level

view

# show acp backbone service

## Syntax

```
show acp backbone service <slot slot> <virtual-router-name virtual-router-name>
<service-name service-name> < (brief) >
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display information about services that SRC-ACP manages in the backbone network.

## Options

`slot` *`slot`*—(Optional) Number of the slot for which you want to configure values.

**Value**— Currently, the chassis has only one slot. The valid value is 0.
**Default**—0

`virtual-router-name` *`virtual-router-name`*—(Optional) Name of virtual router from which to list backbone services.

**Value**— Virtual router name
**Default**— No value

`service-name` *`service-name`*—(Optional) Name of service used by backbone service to generate congestion points.

**Value**— Service name
**Default**— No value

(Optional) Output style.

**Value**

- `brief`— Display backbone service attributes.

**Default**—detail

## Required Privilege Level

view

# show acp congestion-point by-subscriber ip

## Syntax

```
show acp congestion-point by-subscriber ip ip <service-name service-name> <maximum-results maximum-results>
```

## Release Information

Command introduced in SRC 4.1 Release

## Description

Display information about congestion-points affecting one or more subscribers identified by IP address.

## Options

*ip*— IP address of the subscriber session(s) for which you want to list congestion points.

**Value**— A valid IP address
**Default**— No value

`service-name` *service-name*—(Optional) Name of the service for which you want to list congestion points.

**Value**—
**Default**— No value

`maximum-results` *maximum-results*—(Optional) Number of results to be displayed.

**Value**—Integer in the range 1–2147483647
**Default**— 25

## Required Privilege Level

view

# show acp congestion-point by-subscriber login

## Syntax

```
show acp congestion-point by-subscriber login login <service-name service-name>
<maximum-results maximum-results>
```

## Release Information

Command introduced in SRC 4.1 Release

## Description

Display information about congestion-points affecting one or more subscribers identified by login name.

## Options

*`login`*— Login name of the subscriber session(s) for which you want to list congestion points.

**Value**— A subscriber login name
**Default**— No value

`service-name` *`service-name`*—(Optional) Name of the service for which you want to list congestion points.

**Value**—
**Default**— No value

`maximum-results` *`maximum-results`*—(Optional) Number of results to be displayed.

**Value**—Integer in the range 1–2147483647
**Default**— 25

## Required Privilege Level

view

# show acp congestion-point by-subscriber session-id

## Syntax

```
show acp congestion-point by-subscriber session-id <service-name service-name>
session-id
```

## Release Information

Command introduced in SRC 4.1 Release

## Description

Display information about congestion-points affecting one or more subscribers identified by ACP user session ID.

## Options

`service-name` *`service-name`*—(Optional) Name of the service for which you want to list congestion points.

**Value**—
**Default**— No value

*`session-id`*— The ACP subscriber session ID of the subscriber session for which you want to list congestion points.

**Value**— An ACP subscriber session ID
**Default**— No value

## Required Privilege Level

view

# show acp edge congestion-point dn

## Syntax

```
show acp edge congestion-point dn <slot slot> <congestion-point-dn congestion-point-dn> <instance-id instance-id> <virtual-router-name virtual-router-name> < (brief) > <maximum-results maximum-results>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display congestion point by DN.

## Options

`slot` *`slot`*—(Optional) Number of the slot for which you want to configure values.

**Value**— Currently, the chassis has only one slot. The valid value is 0.
**Default**—0

`congestion-point-dn` *`congestion-point-dn`*—(Optional) DN of congestion point for which you want to list all matching congestion points.

**Value**— All or part of the congestion point DN.
**Default**— No value

`instance-id` *`instance-id`*—(Optional) Name of an instance generated for a congestion point that is automatically created.

**Value**— All or part of the congestion point instance ID.
**Default**— No value

`virtual-router-name` *`virtual-router-name`*—(Optional) Name of virtual router from which to list congestion points.

**Value**— Virtual router name
**Default**— No value

(Optional) Output style.

**Value**

- `brief`— Display congestion point DN.

**Default**—detail

`maximum-results` *`maximum-results`*—(Optional) Number of results to be displayed.

**Value**—Integer in the range 1–2147483647
**Default**— 25

## Required Privilege Level

view

# show acp edge congestion-point subscriber-session-id

### Syntax

```
show acp edge congestion-point subscriber-session-id <slot slot> <session-id session-id> <virtual-router-name virtual-router-name> < (brief) > <maximum-results maximum-results>
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Display congestion point by subscriber session ID.

### Options

`slot` *`slot`*—(Optional) Number of the slot for which you want to configure values.

**Value**— Currently, the chassis has only one slot. The valid value is 0.
**Default**—0

`session-id` *`session-id`*—(Optional) Subscriber session ID for which you want to list all matching congestion points.

**Value**— All or part of the subscriber session ID.
**Default**— No value

`virtual-router-name` *`virtual-router-name`*—(Optional) Name of virtual router from which to list congestion points.

**Value**— Virtual router name
**Default**— No value

(Optional) Output style.

**Value**

- `brief`— Display congestion point attributes.

**Default**—detail

`maximum-results` *`maximum-results`*—(Optional) Number of results to be displayed.

**Value**—Integer in the range 1–2147483647
**Default**— 25

## Required Privilege Level

view

# show acp edge subscriber

### Syntax

```
show acp edge subscriber <slot slot> <virtual-router-name virtual-router-name>
<session-id session-id> < (brief) >
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Display subscriber sessions in the edge network.

### Options

`slot` *`slot`*—(Optional) Number of the slot for which you want to configure values.

**Value**— Currently, the chassis has only one slot. The valid value is 0.
**Default**—0

`virtual-router-name` *`virtual-router-name`*—(Optional) Name of virtual router from which to list subscriber sessions.

**Value**— Virtual router name
**Default**— No value

`session-id` *`session-id`*—(Optional) Subscriber session ID for which you want to list all matching subscriber sessions.

**Value**— All or part of the subscriber session ID.
**Default**— No value

(Optional) Output style.

**Value**

- `brief`— Display subscriber session attributes.

**Default**—detail

## Required Privilege Level

view

# show acp remote-update congestion-point dn

### Syntax

```
show acp remote-update congestion-point dn <slot slot> <congestion-point-dn
congestion-point-dn> < (brief) >
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Display congestion point by DN.

### Options

`slot` *`slot`*—(Optional) Number of the slot for which you want to configure values.

**Value**— Currently, the chassis has only one slot. The valid value is 0.
**Default**—0

`congestion-point-dn` *`congestion-point-dn`*—(Optional) DN of congestion point for which you want to list all matching congestion points.

**Value**— All or part of the congestion point DN.
**Default**— No value

(Optional) Output style.

**Value**

- `brief`— Display congestion point DN.

**Default**—detail

### Required Privilege Level

view

# show acp remote-update congestion-point name

## Syntax

```
show acp remote-update congestion-point name <slot slot> <device-name device-name>
<interface-name interface-name> < (brief) >
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display congestion point by interface name.

## Options

`slot` *`slot`*—(Optional) Number of the slot for which you want to configure values.

**Value**— Currently, the chassis has only one slot. The valid value is 0.
**Default**—0

`device-name` *`device-name`*—(Optional) Device name of the congestion point.

**Value**— Device name
**Default**— No value

`interface-name` *`interface-name`*—(Optional) Interface name of the congestion point.

**Value**— Interface name
**Default**— No value

(Optional) Output style.

**Value**

- `brief`— Display congestion point DN.

**Default**—detail

## Required Privilege Level

view

# show acp remote-update subscriber

## Syntax

```
show acp remote-update subscriber <slot slot> <device-name device-name> <nas-port-id
nas-port-id> <nas-ip nas-ip> <subscriber-ip subscriber-ip> <phone phone> < (brief) >
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display information about subscribers added through an external application.

## Options

`slot` *`slot`*—(Optional) Number of the slot for which you want to configure values.

**Value**— Currently, the chassis has only one slot. The valid value is 0.
**Default**—0

`device-name` *`device-name`*—(Optional) Device name connected to subscriber.

**Value**— Device name
**Default**— No value

`nas-port-id` *`nas-port-id`*—(Optional) NAS port ID of interface connected to subscriber.

**Value**— NAS port ID
**Default**— No value

`nas-ip` *`nas-ip`*—(Optional) NAS IP address of device connected to subscriber.

**Value**— IP address
**Default**— No value

`subscriber-ip` *`subscriber-ip`*—(Optional) Subscriber IP address.

**Value**— IP address
**Default**— No value

`phone` *`phone`*—(Optional) Subscriber phone number.

**Value**— Phone number
**Default**— No value

(Optional) Output style.

**Value**

- `brief`— Display congestion point DN.

**Default**—detail

## Required Privilege Level

view

# show acp statistics device

### Syntax

```
show acp statistics device <filter filter> < (brief) >
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Display SNMP information for each device.

### Options

`filter` *`filter`*—(Optional) Name of the device.

**Value**— All or part of the device name.
**Default**— No value

(Optional) Output style.

**Value**

- `brief`— Display only device names.

**Default**—detail

### Required Privilege Level

view

# show acp statistics directory

## Syntax

```
show acp statistics directory
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Display directory SNMP information.

## Required Privilege Level

view

# show acp statistics general

### Syntax

```
show acp statistics general
```

### Release Information

Command introduced in SRC Release 1.0.0

### Description

Display SRC-ACP SNMP information.

### Required Privilege Level

view

# SRC License Management

The following table summarizes the SRC command-line interface (SRC CLI) for supporting license management.Configuration statements and operational commands are listed in alphabetical order.

| SRC License Management |
| --- |
| Configuration Statements |
| shared license-server alarm |
| shared license-server corba |
| shared license-server email |
| shared license-server engine |
| shared license-server logging logger |
| shared license-server logging logger name file-logger |
| shared license-server logging logger name syslog-logger |
| shared license-server persistence-control |
| shared license-server repository |
| Operational Commands |
| request license import |
| request license remove |
| request license usage-report |
| show license allocated |

# shared license-server alarm

## Syntax

```
shared license-server alarm {
     threshold threshold;
     report-server report-server;
}
```

## Hierarchy Level

```
[edit shared license-server alarm]
```

## Release Information

Statement introduced in SRC Release 3.1.0

## Description

Configure the SRC license server to send alarms to administrators through SNMP and e-mail messages.

## Options

`threshold` *`threshold`*— A threshold as a percentage of licensed capacity that, when exceeded, sends SNMP minor traps and initiates e-mail alerts to the system administrator.

**Value**—Integer in the range 0–100
**Default**— 80
**Editing Level**—Normal

`report-server` *`report-server`*—(Optional) SNMP server to receive warning traps.

**Value**— IP address or hostname
**Default**— No value
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Basic

# shared license-server corba

### Syntax

```
shared license-server corba {
     orb-configuration-property-file orb-configuration-property-file;
}
```

### Hierarchy Level

```
[edit shared license-server corba]
```

### Release Information

Statement introduced in SRC Release 3.1.0

### Description

Use the CORBA configuration to define the location of the property file for the object request broker (ORB). Typically, you do not need to change this property.

### Options

`orb-configuration-property-file` *`orb-configuration-property-file`*— ORB configuration property file.

**Value**— *filename*
**Default**— *etc/jacorb.properties*
**Editing Level**—Expert

### Required Privilege Level

system

### Required Editing Level

Expert

# shared license-server email

## Syntax

```
shared license-server email {
     server server;
     alarm-report-address alarm-report-address;
     usage-report-address [usage-report-address...];
}
```

## Hierarchy Level

```
[edit shared license-server email]
```

## Release Information

Statement introduced in SRC Release 3.1.0

## Description

Configure e-mail addresses to receive messages about license server warnings or license server usage reports.

## Options

`server` *`server`*— SMTP e-mail server to receive alarms and usage reports.

**Value**— IP address or hostname
**Default**— No value
**Editing Level**—Normal

`alarm-report-address` *`alarm-report-address`*— E-mail address of the system administrator to receive warning e-mail messages.

**Value**— E-mail address
**Default**— No value
**Editing Level**—Normal

`usage-report-address [`*`usage-report-address`*`...]`—(Optional) E-mail address of the system administrator to receive usage report e-mail messages.

**Value**— E-mail address
**Default**— No value
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Basic

# shared license-server engine

## Syntax

```
shared license-server engine {
     service-session-unit-size service-session-unit-size;
     sae-service-unit-size sae-service-unit-size;
     lease-renew-interval lease-renew-interval;
     allocate-license-threshold allocate-license-threshold;
     release-license-threshold release-license-threshold;
}
```

## Hierarchy Level

```
[edit shared license-server engine]
```

## Release Information

Statement introduced in SRC Release 3.1.0

## Description

Configure general properties for the SRC license server.

## Options

`service-session-unit-size` *`service-session-unit-size`*— Size of each license unit for the service session property; this is the size of the license unit allocated to the SAE.

**Value**—Integer in the range -2147483648–2147483647
**Default**— 50
**Editing Level**—Expert

`sae-service-unit-size` *`sae-service-unit-size`*—(Optional) Size of each license unit for the SAE service property; this is the size of the license unit allocated to the SAE.

**Value**—Integer in the range -2147483648–2147483647
**Default**— 25
**Editing Level**—Expert

`lease-renew-interval` *`lease-renew-interval`*— Lease period for the licenses that the SAE client receives.

**Value**— Number of seconds in the range 0-129600 **Note:** 604800 is 1 week; 129600 is 2 weeks.
**Default**— 604800 (one week)
**Editing Level**—Expert

`allocate-license-threshold` *`allocate-license-threshold`*— Threshold, as a percentage of the chunk size, at which the SAE client obtains more licenses.

**Value**—Integer in the range 0–100
**Default**— 90
**Editing Level**—Expert

`release-license-threshold` *`release-license-threshold`*— Threshold, as a percentage of the chunk size, at which the SAE client releases one license unit.

**Value**—Integer in the range 0–100
**Default**— 10
**Editing Level**—Expert

## Required Privilege Level

system

## Required Editing Level

Expert

# shared license-server logging logger

## Syntax

```
shared license-server logging logger name ...
```

## Hierarchy Level

```
[edit shared license-server logging logger]
```

## Release Information

Statement introduced in SRC Release 3.1.0

## Description

Configure logging properties for the SRC license server.

## Options

`name` *`name`*— Name of the logging configuration.

**Value**—Text

## Required Privilege Level

system

## Required Editing Level

Basic

# shared license-server logging logger *name* file-logger

### Syntax

```
shared license-server logging logger name file-logger {
     filter filter;
     device-filter-key device-filter-key;
     filename filename;
     rollover-filename rollover-filename;
     maximum-file-size maximum-file-size;
}
```

### Hierarchy Level

```
[edit shared license-server logging logger name file-logger]
```

### Release Information

Statement introduced in SRC Release 3.1.0

### Description

Configure logging of messages to a file.

`filter filter`—(Optional) Filter to define which event messages the software logs or ignores. Filters can specify the logging level, such as debug, or can specify expressions. For information about expressions, see the documentation that describes how to configure logging.

**Value**— Log filter
**Default**— The default value is different for each type of component.
**Editing Level**—Basic

`device-filter-key device-filter-key`—(Optional) Filter the DEBUG logs specific to network device. The filtering can be done based on combinations of parameters namely router-name/interface-name/login-name. These parameters can be associated using AND (&) or OR (|) operators. Syntax: set device-filter-key (router-name=<val> & interface-name=<val> | login-name=<val> All three parameters are optional. Absence of a parameter would indicate match ANY. Example: set device-filter-key (router-name=<val>) would indicate match debug logs based on the router-name only irrespective of the interface-name or login-name. Note: 1. "device-filter-key" will NOT filter info/error/warning logs. 2. This version supports network device specific logging for COPs drivers only

**Value**— Log network device filter
**Default**— The default value is different for each type of component.
**Editing Level**—Basic

`filename` *`filename`*— Absolute path of the filename that contains the current logs.

**Note:** Make sure that the user under which the J2EE application server or Web application server runs has write access to this folder. If this user does not have write access to the default folder, configure the component or application to write logs in folders to which the user has write access.

**Value**— Filename
**Default**— By default, SRC components and applications write log files in the folder in which the component or application is started.
**Editing Level**—Basic

`rollover-filename` *`rollover-filename`*—(Optional) Absolute path of the filename that contains the log history. When the log file reaches the maximum size, the software closes the log file and renames it with the name you specify for the rollover file. If a previous rollover file exists, the software overwrites it. The software then reopens the log file and continues to save event messages in it.

**Value**— Path of filename

Example—/opt/UMC/sae/var/log/sae.alt

**Default**— The default value is different for each type of component.
**Editing Level**—Normal

`maximum-file-size` *`maximum-file-size`*—(Optional) Maximum size of the log file and the rollover file.

Do not set the maximum file size to a value greater than the available disk space.

**Value**—Integer in the range 0–10000000 kbytes
**Default**— 1000000
**Editing Level**—Normal

## Required Privilege Level

system

## Required Editing Level

Basic

# shared license-server logging logger *name* syslog-logger

### Syntax

```
shared license-server logging logger name syslog-logger {
     filter filter;
     host host;
     port port;
     facility facility;
     format format;
}
```

### Hierarchy Level

```
[edit shared license-server logging logger name syslog-logger]
```

### Release Information

Statement introduced in SRC Release 3.1.0

### Description

Configure logging of messages to system logging.

`filter` *`filter`*—(Optional) Filter to define which event messages the software logs or ignores. Filters can specify the logging level, such as debug, or can specify expressions. For information about expressions, see the documentation that describes how to configure logging.

**Value**— Log filter
**Default**— The default value is different for each type of component.
**Editing Level**—Basic

`host` *`host`*— IP address or name of a host that collects event messages by means of a standard system logging daemon.

**Value**— IP address or hostname
**Default**—loghost
**Editing Level**—Basic

`port` *`port`*—(Optional) Port number for system logging daemon.

**Value**— Port number in the range of 0–65535
**Default**— 514
**Editing Level**—Basic

`facility` *`facility`*—(Optional) Type of system log in accordance with the system logging protocol.

**Value**—Integer in the range 0–23
**Default**— 3
**Editing Level**—Advanced

`format` *`format`*—(Optional) MessageFormat string that specifies how the information in an event message is printed. (The strings {#} are replaced with the log information [...]).

**Value**— MessageFormat string as specified in http://java.sun.com/j2se/1.4.2/docs/api/java/text/MessageFormat.html.

The fields available for events are:

- 0—Time and date of the event
- 1—Name of the thread generating the event
- 2—Text message of the event
- 3—Category of the event
- 4—Priority of the event

**Editing Level**—Advanced

## Required Privilege Level

system

## Required Editing Level

Basic

# shared license-server persistence-control

## Syntax

```
shared license-server persistence-control {
     root-directory-of-the-license-server root-directory-of-the-license-server;
     work-directory-of-the-license-server work-directory-of-the-license-server;
     license-server-state-cache-file license-server-state-cache-file;
}
```

## Hierarchy Level

```
[edit shared license-server persistence-control]
```

## Release Information

Statement introduced in SRC Release 3.1.0

## Description

Configure the root directory, the working directory, and the cache file location for the SRC license server.

## Options

`root-directory-of-the-license-server` *`root-directory-of-the-license-server`*— Root directory of the license server.

**Value**— DN
**Default**— */opt/UMC/licsvr*
**Editing Level**—Expert

`work-directory-of-the-license-server` *`work-directory-of-the-license-server`*— Work directory of the license server, in which license server states are saved.

**Value**— Directory path
**Default**— *var/run*
**Editing Level**—Expert

`license-server-state-cache-file` *`license-server-state-cache-file`*— Cache file for license server state information.

**Value**— *filename*
**Default**— state
**Editing Level**—Expert

## Required Privilege Level

system

## Required Editing Level

Expert

# shared license-server repository

## Syntax

```
shared license-server repository {
     ldap-server-address [ldap-server-address...];
     server-port server-port;
     search-base search-base;
     authentication-dn authentication-dn;
     password password;
     signature-dn signature-dn;
     polling-interval polling-interval;
     timeout timeout;
}
```

## Hierarchy Level

```
[edit shared license-server repository]
```

## Release Information

Statement introduced in SRC Release 3.1.0

## Description

Configure access to the Juniper Networks database for the SRC license server.

## Options

`ldap-server-address [ldap-server-address...]`— IP addresses or hostnames of the LDAP server that stores licensing data.

This is a required property. If no value is assigned, the license server does not start. If this value is removed while the license server is running, the server rejects licensing requests. After a new value is entered and the license server connects to the LDAP server, the license server accepts license requests again.

**Value**— IP address or hostname
**Default**— 127.0.0.1
**Editing Level**—Expert

`server-port server-port`— Port of the LDAP server that stores licensing data.

**Value**—Integer in the range 0–65535
**Default**— 389
**Editing Level**—Expert

`search-base search-base`— Base directory of the LDAP server that stores licensing data.

**Value**— DN
**Default**— *o=umc*
**Editing Level**—Expert

`authentication-dn` *`authentication-dn`*— DN used by the SAE to authenticate access to the LDAP server that stores licensing data.

**Value**— DN
**Default**— *cn=licsvr, ou=Components, o=Operators, o=umc*
**Editing Level**—Expert

`password` *`password`*— Password used to authenticate access to the LDAP server that stores licensing data.

**Value**— *password*
**Default**— licsvr
**Editing Level**—Expert

`signature-dn` *`signature-dn`*—(Optional) DN of the entry that specifies the LDAP schema attribute usedDirectory. This attribute identifies the type of directory, such as openLDAP or DirX, on which the license data is stored.

**Value**— <DN>. The string <base> is replaced with the directory base DN
**Default**— No value
**Editing Level**—Expert

`polling-interval` *`polling-interval`*—(Optional) Frequency for checking the directory for changes.

**Value**—Integer in the range 15–86400 s
**Default**— 30
**Editing Level**—Expert

`timeout` *`timeout`*—(Optional) Maximum time that the directory eventing system waits for the directory to respond.

**Value**—Integer in the range 0–9223372036854775807 ms
**Default**— No value
**Editing Level**—Expert

## Required Privilege Level

system

**Required Editing Level**

Expert

# request license import

## Syntax

```
request license import file-name file-name <server-address server-address> <name-space
name-space> <authentication-dn authentication-dn> <password password> <master-license>
```

## Release Information

Command introduced in SRC Release 1.0.0

## Description

Import an SRC license into the directory. The license can be either a pilot license or a server license. Use the `master-license` option to install a server, or master, license.

## Options

`file-name` *`file-name`*— Name of the file that contains the SRC license information.

**Value**— Filename
**Default**— No value

`server-address` *`server-address`*—(Optional) IP address for the primary directory server. For C Series Controllers, this is the platform that has the Juniper Networks database configured to have a primary role.

**Value**— IP address
**Default**— No value

`name-space` *`name-space`*—(Optional) Base distinguished name (DN) for the directory. In most cases you can use the default <base>.

**Value**— Base DN
**Default**— <base>

`authentication-dn` *`authentication-dn`*—(Optional) DN used for directory authentication.

**Value**— DN
**Default**— No value

`password` *`password`*—(Optional) Password used for directory authentication.

**Value**— Password
**Default**— No value

`master-license`—(Optional) License is a server, or master, license.

## Required Privilege Level

maintenance

# request license remove

## Syntax

```
request license remove <license-id license-id> <server-address server-address> <name-space name-space> <authentication-dn authentication-dn> <password password> <master-license> <all>
```

## Release Information

Command introduced in SRC Release 3.0.0

## Description

Remove an SRC license from the directory. Use the `master-license` option to remove a server, or master, license.

## Options

`license-id` *`license-id`*—(Optional) License ID identifying the license to be removed.

**Value**— license ID
**Default**— No value

`server-address` *`server-address`*—(Optional) IP address for the primary directory server. For C Series Controllers, this is the platform that has the Juniper Networks database configured to have a primary role.

**Value**— IP address
**Default**— No value

`name-space` *`name-space`*—(Optional) Base distinguished name (DN) for the directory. In most cases you can use the default <base>.

**Value**— Base DN
**Default**— <base>

`authentication-dn` *`authentication-dn`*—(Optional) DN used for directory authentication.

**Value**— DN
**Default**— No value

`password` *`password`*—(Optional) Password used for directory authentication.

**Value**— Password
**Default**— No value

`master-license`—(Optional) Remove the master license.

`all`—(Optional) Remove all licenses.

## Required Privilege Level

maintenance

# request license usage-report

## Syntax

```
request license usage-report <slot slot>
```

## Release Information

Command introduced in SRC Release 3.1.0

## Description

Create a license usage report. The report lists the date the report was created, and for each license the customer identification information, the license serial number, and the number of licenses installed. It also lists the number of concurrent active SAE service sessions (maximum number of license units) that can be allocated, and the maximum number of concurrent active SAE service sessions allocated since the license was installed or since the last license usage report was created.

## Options

`slot` *`slot`*—(Optional) Number of the slot for which you want to request a license report.

**Value**— Currently the chassis has only one slot. The valid value is 0.
**Default**— 0

## Required Privilege Level

maintenance

# show license allocated

## Syntax

```
show license allocated <virtual-router virtual-router> <slot slot>
```

## Release Information

Command introduced in SRC Release 3.1.0

## Description

Display information stored in the most recent usage report for the license server. The usage report provides information about the maximum number of concurrent service sessions in use per virtual router since the last time a usage report was generated, and compares this number with the maximum number of sessions allowed by the SRC server license.

## Options

`virtual-router` *`virtual-router`*—(Optional) Name of virtual router for which to display license usage information.

**Value**— VR name
**Default**— No value

`slot` *`slot`*—(Optional) Number of the slot for which you want to display license usage information.

**Value**— Currently the chassis has only one slot. The valid value is 0.
**Default**— 0

## Required Privilege Level

view

# COS Naming Service

The following table summarizes the SRC command-line interface (SRC CLI) for supporting the COS Naming Service. Configuration statements and operational commands are listed in alphabetical order.

| COS Naming Service |
| --- |
| Configuration Statements |
| Operational Commands |
| request naming add |
| request naming clear |
| request naming translate |
| show naming data |
| show naming statistics |

# request naming add

## Syntax

`request naming add name` *`name`* `object-reference` *`object-reference`*

## Release Information

Command introduced in SRC Release 3.2.0

## Description

Add a name binding.

## Options

`name` *`name`*— Object name.

**Value**—Text

`object-reference` *`object-reference`*— Interoperable object reference (IOR).

**Value**—Text

## Required Privilege Level

maintenance

# request naming clear

## Syntax

```
request naming clear <name name>
```

## Release Information

Command introduced in SRC Release 3.2.0

## Description

Remove name bindings.

## Options

`name` *`name`*—(Optional) Object name.

**Value**—Text

## Required Privilege Level

clear

# request naming translate

## Syntax

`request naming translate` *`name`*

## Release Information

Command introduced in SRC Release 3.2.0

## Description

Display details about the specified name or IOR. If a name is specified, then the command looks up the name in the naming server and then displays the details. If a literal IOR is specified, then the command just displays the details for it.

## Options

*`name`*— Name or object reference.

**Value**—Text

## Required Privilege Level

maintenance

# show naming data

### Syntax

```
show naming data <name name> <detailed>
```

### Release Information

Command introduced in SRC Release 3.2.0

### Description

Display information for name bindings.

### Options

`name` *`name`*—(Optional) Object name.

**Value**—Text

`detailed`—(Optional) Add detailed information.

### Required Privilege Level

maintenance

# show naming statistics

## Syntax

```
show naming statistics
```

## Release Information

Command introduced in SRC Release 3.2.0

## Description

Display statistics.

## Required Privilege Level

maintenance