

## Chapter 16

# Setting Up an SAE with the SRC CLI

This chapter describes how to initially configure the SAE and how to create grouped SAE configurations with the SRC CLI.

You can also use the local configuration tool to initially configure the SAE on Solaris platforms. See *Chapter 30, Setting Up an SAE on a Solaris Platform*.

Topics include:

- Overview of Initial SAE Configuration on page 145
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- Configuring Local Properties for the SAE on page 147
- Configuring the RADIUS Local IP Address and NAS ID on page 149
- Starting and Stopping the SAE on page 149

### Overview of Initial SAE Configuration

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To initially configure the SAE:

- (Optional) Create a configuration group for the SAE.  
See *Creating Grouped Configurations for the SAE* on page 146
- Configure local properties for the SAE.  
See *Configuring Local Properties for the SAE* on page 147
- Configure a local IP address and NAS ID that the SAE uses to communicate with RADIUS servers.  
See *Configuring the RADIUS Local IP Address and NAS ID* on page 149

- Configure directory connection properties for the SAE.

See *Configuring Directory Connection Properties* on page 227

- Configure directory eventing properties for the SAE.

See *Configuring Initial Directory Eventing Properties for SRC Components* on page 228

## Creating Grouped Configurations for the SAE

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We recommend that you configure the SAE within a group. When you create a configuration group, the software creates a configuration with default values filled in.

Configuration groups allow you to build hierarchies that define different levels of sharing. There is a shared SAE configuration that you configure at the **shared sae configuration** hierarchy level. The configuration is shared with all SAE instances in the SRC network.

You can then create a grouped SAE configuration that is shared with some SAE instances. For example, if you create an SAE group called **region** within the shared SAE configuration, you could share the SAE configuration with all SAE instances in a particular region.

You can then create a lower-level group called **location** in the SAE group **region**, which could be shared with SAE instances in a particular location.

Configuration options that are defined in a lower-level group override options in a higher-level group. This functionality allows you to define general configuration values (such as plug-in definitions) on a higher level and augment or specialize them on a lower level.

### Configuring an SAE Group

Use the **shared** option of the **set slot number sae shared** command to add a new group. Use the **shared sae group name** command to configure the group.

To configure a group:

1. From configuration mode, add a group. For example, to add a group called **REGION-1** in the path **/SAE/**:

```
[edit]
user@host# set slot 0 sae shared /SAE/REGION-1
```

2. Commit the configuration.

```
[edit]
user@host# commit
commit complete.
```

3. Configure the group as you would a shared SAE configuration.

```
[edit]
user@host# edit shared sae group REGION-1 ?
Possible completions:
  <[Enter]>          Execute this command
  > configuration    Configure a DHCP classification script
  > dhcp-classifier  Group of SAE configuration properties
  > group            Configure a subscriber classification script
  > user-classifier  Pipe through a command
  |
```

## Configuring Local Properties for the SAE

Use the following configuration statements to configure local properties for the SAE:

```
slot number sae {
  base-dn base-dn;
  real-portal-address real-portal-address;
  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;
  port-offset port-offset;
  snmp-agent;
  shared shared;
}
```

To configure local properties on the SAE:

1. From configuration mode, access the SAE RADIUS configuration. This configuration is under the slot 0 hierarchy.

```
[edit]
user@host# edit slot 0 sae
```

2. (Optional) If you store data in the directory in a location other than the default, *o = umc*, change this value.

```
[edit slot 0 sae]
user@host# set base-dn base-dn
```

3. Configure the interface on the SAE that the SAE uses to communicate with the router.

```
[edit slot 0 sae]
user@host# set real-portal-address real-portal-address
```

4. (Optional. Solaris platform.) If the Java Runtime Environment (JRE) is not in the default location (*../jre/bin/java*) on a Solaris platform, change the directory path to the JRE.

```
[edit slot 0 sae]
user@host# set java-runtime-environment java-runtime-environment
```

5. (Optional) If you encounter problems caused by lack of memory, change the maximum memory size available to the JRE.

```
[edit slot 0 sae]
user@host# set java-heap-size java-heap-size
```

6. Configure the amount of space available to the JRE when the SAE starts.

```
[edit slot 0 sae]
user@host# set java-new-size java-new-size
```

7. Configure the garbage collection functionality of the Java Virtual Machine.

```
[edit slot 0 sae]
user@host# set java-garbage-collection-options java-garbage-collection-options
```

8. If you install multiple instances of the SAE on the same host, set a port offset for SAE instances.

```
[edit slot 0 sae]
user@host# set port-offset port-offset
```

9. (Optional) Enable the SNMP agent to communicate with the SAE.

```
[edit slot 0 sae]
user@host# set snmp-agent
```

10. (Optional) Configure an SAE group configuration.

```
[edit slot 0 sae]
user@host# set shared shared
```

11. (Optional) Verify your configuration.

```
[edit slot 0 sae]
user@host# show
base-dn o=UMC;
real-portal-address 10.10.4.24;
java-runtime-environment ../jre/bin/java;
java-heap-size 896m;
java-new-size 22m;
java-garbage-collection-options "-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:+CMSPermGenSweepingEnabled
-XX:+CMSClassUnloadingEnabled -XX:+CMSParallelRemarkEnabled";
port-offset 0;
snmp-agent;
shared /SAE/REGION-1;
```

## Configuring the RADIUS Local IP Address and NAS ID

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Use the following configuration statements to set the local RADIUS address and network access server (NAS ID):

```
slot number sae radius {
    local-address local-address;
    local-nas-id local-nas-id;
}
```

To set the local RADIUS address and NAS ID:

1. From configuration mode, access the SAE RADIUS configuration. This configuration is under the slot 0 hierarchy.

```
[edit]
user@host# edit slot 0 sae radius
```

2. Configure the local IP address that the SAE uses to communicate with RADIUS servers.

```
[edit slot 0 sae radius]
user@host# set local-address local-address
```

3. Configure the NAS ID that identifies the SAE when it sends RADIUS authentication and accounting records. Typically, the NAS ID is the name of the SAE host.

```
[edit slot 0 sae radius]
user@host# set local-nas-id local-nas-id
```

4. (Optional) Verify your configuration.

```
[edit slot 0 sae radius]
user@host# show
local-address 10.10.4.20;
local-nas-id SAE.host1;
```

## Starting and Stopping the SAE

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You must configure licenses before you start the SAE. When you start the SAE, the software verifies that a valid license is available. If no license is found, the SAE does not start.

To start the SAE:

- From operational mode, enable the SAE.

```
user@host> enable component sae
Check license: OK
Starting sae: may take a few minutes...
```

To stop the SAE:

- From operational mode, disable the SAE.

```
user@host> disable component sae  
Shutting down the SAE server: done
```

To verify that the SAE is running:

- From operational mode, enter the `show component` command.

```
user@host> show component  
Installed Components
```

Name	Version	Status
cli	Release: 7.0 Build: CLI.A.7.0.0.0171	running
acp	Release: 7.0 Build: ACP.A.7.0.0.0174	disabled
jdb	Release: 7.0 Build: DIRXA.A.7.0.0.0176	running
editor	Release: 7.0 Build: EDITOR.A.7.0.0.0176	disabled
redir	Release: 7.0 Build: REDIR.A.7.0.0.0176	disabled
licSvr	Release: 7.0 Build: LICSVR.A.7.0.0.0179	stopped
nic	Release: 7.0 Build: GATEWAY.A.7.0.0.0170	disabled
sae	Release: 7.0 Build: SAE.A.7.0.0.0166	running
www	Release: 7.0 Build: UMC.A.7.0.0.0169	disabled
jps	Release: 7.0 Build: JPS.A.7.0.0.0172	disabled
agent	Release: 7.0 Build: SYSMAN.A.7.0.0.0174	disabled
webadm	Release: 7.0 Build: WEBADM.A.7.0.0.0173	disabled