

Chapter 7

Setting Up an SAE

This chapter describes how to configure the default properties for the SAE and how to edit the SAE local configuration file. The chapter contains the following sections:

- Configuring SAE Initial Settings on page 87
- Configuring SAE Attributes in Property Files on page 93

Configuring SAE Initial Settings

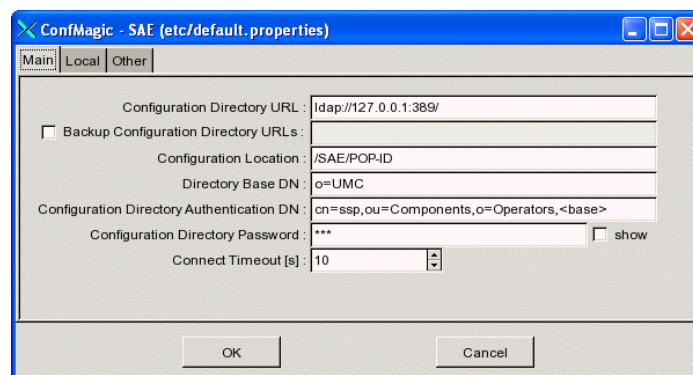
Before you configure licenses and before you start the SAE, configure the local parameters for the SAE. These local properties are stored in the default-properties file. The following procedure describes how to use the local configuration tool to configure the SAE local properties. For information about how to use the local configuration tool, see *Chapter 15, Configuring Local Properties*.

To configure SAE properties that are stored in a local file rather than in the directory:

1. On the SAE host, log in as `root` or as an authorized nonroot admin user.
2. Start the local configuration tool from the SAE installation directory.

```
/opt/UMC/sae/etc/config -l&
```

The local configuration tool window appears.



3. Using the field descriptions in the following sections, configure the fields in each tab of the configuration tool window; then click OK.

Configuring Directory Properties

Use the Main tab to specify configuration directory information.

Configuration Directory URL

- URL of the directory server containing the main SAE configuration data (see also information about the LDAP authentication plug-in in *SDX Subscribers and Subscriptions Guide, Chapter 5, Configuring Authorization and Accounting Plug-Ins*).
- Value—ldap:// <URL >
- Default—ldap://127.0.0.1:389

Backup Configuration Directory URLs

- URL of one or more backup directory servers containing the main SAE configuration data (see also information about the ldapAuth plug-in in *SDX Subscribers and Subscriptions Guide, Chapter 5, Configuring Authorization and Accounting Plug-Ins*).
- Value—LDAP URL in the format
ldap: < address > [: < port >][/ < path >]?[?query]
- Guidelines—Use a semicolon (;) to separate URLs for multiple backup directory servers.
- Default—No value

Configuration Location

- Location of the object holding the SAE configuration data.
- Value—Symbolic name of the SAE
- Guidelines—Replace /SAE/POP-ID with a symbolic name for the SAE you are configuring. Sensible choices are the hostname of the server or the name of a given location. If you configure multiple servers in a common redundant configuration, the servers should refer to the same configuration object.
- Default—/SAE/POP-ID

Directory Base DN

- Distinguished name (DN) of the root directory for the SAE.
- Value—DN of the root directory for the SAE
- Guidelines—You must set this attribute if you use a directory-naming scheme different from the default.
- Default—*o = umc*

Configuration Directory Authentication DN

- DN used for authentication with the directory server.
- Value—DN used for authentication
- Guidelines—Replace the default DN with an object that has read/write access to the subtree *ou = Configuration, o = umc*. Access to other parts of the directory is not required.
- Default—*cn = ssp, ou = Components, o = Operators, o = <base>*

Configuration Directory Password

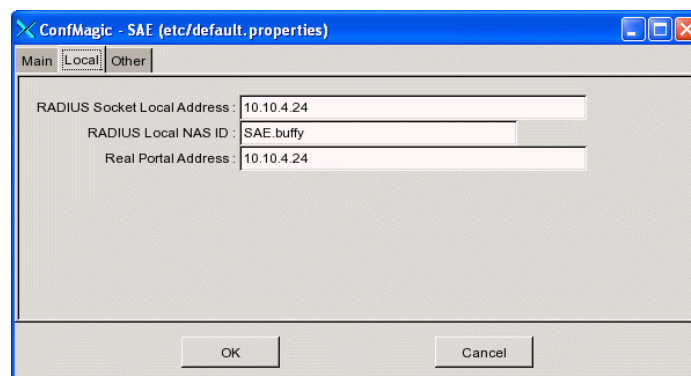
- Password used to authenticate the directory server.
- Value—Text string
- Guidelines—The password must match the userPassword attribute of the authentication DN. You can display the password in the clear or as asterisks.
- Default—*ssp*

Connect Timeout

- Time interval during which connection must be established.
- Value—Number of seconds in the range 1–2147483647
- Default—10

Configuring RADIUS Properties and the Portal Address

Use the Local tab to set the local IP addresses.



RADIUS Socket Local Address

- Local IP address on the SAE host used for communication with RADIUS servers.
- Value—IP address in dotted decimal notation
- Guidelines—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. The address that you specify should be a unique network access server (NAS) IP address.
- Default—One of the IP addresses configured on the host (except 127.0.0.1)

RADIUS Local NasID

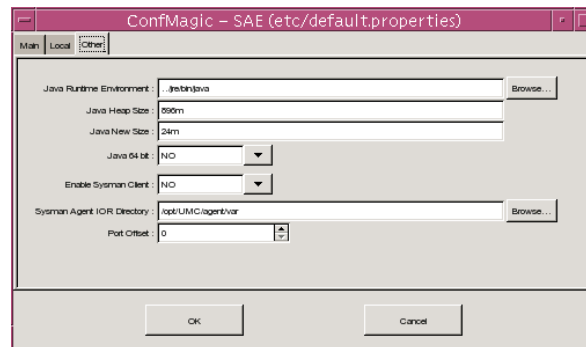
- String identifying the SAE when sending RADIUS authentication and accounting records. Typically, the string is the name of the SAE host.
- Value—Text string that identifies the SAE
- Default—SSP. <hostname >

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 is equipped with multiple network interfaces, you must specify the interfaces that are used to communicate with the router.
- Value—IP address in dotted decimal notation
- Guidelines—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 is equipped with multiple network interfaces, you must specify the interfaces that are used to communicate with the router.
- Default—One of the IP addresses configured on the host (except 127.0.0.1), or the field may be empty

Configuring JRE, SNMP, and Port Offset Properties

Use the Other tab to configure Java Runtime Environment (JRE) information, enable Simple Network Management Protocol (SNMP), configure the location of the SAE interoperable object reference (IOR) file, and configure the port offset for SAE instances.



Java Runtime Environment

- Path to the JRE.
- Value—Absolute or relative directory path
 - This path is the default installation path for the JRE that is distributed with the SDX software and installed with the other SDX components.
- Guidelines—The SDX software requires a JRE that conforms to the Java 2 specification. The SDX software has been tested with Sun’s JRE. See the *SDX Release Notes* for information about which version of the Sun JRE is distributed with the SDX software. We expect other JREs to work, but have not verified whether they do.
- Default—`../jre/bin/java`
- Example
 - `/opt/UMC/jre/bin/java`—Absolute path
 - `../jre/bin/java`—Relative path to the installation directory for the SAE

Java Heap Size

- Maximum Java heap (memory) size available to the JRE. The value is inserted when the JRE starts.
- Value—Number of megabytes
- Guidelines—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 also

<http://java.sun.com/j2se/1.4.2/docs/tooldocs/solaris/java.html>

- Default—The value is calculated dynamically to 70% of the available real memory when you first run the SAE local configuration tool.

Java New Size

- Amount of space available to the JRE when the component 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. Number of megabytes followed by m. See the documentation for the JRE for valid values.
- Default—24m

Java 64-Bit

- Specifies whether or not the JRE uses the 64-bit Java virtual machine.
- Value
 - Yes
 - No
- Guidelines—If 64-bit mode is enabled, the Java virtual machine can access more than 4 gigabytes of memory. Enabling 64-bit mode can have negative implications on CPU performance. Please consult the Juniper Technical Assistance Center before you change this value.
- Default—No

Enable Sysman Client

- Enables the SNMP agent to communicate with the SAE.
- Value
 - Yes—Enabled
 - No—Disabled
- Default—No

Sysman Agent IOR Directory

- Folder that contains the IOR file for the SAE. The SAE writes its object references to this folder, and the SNMP agent discovers SAE components by monitoring the SAE IOR file in this folder.
- Guidelines—By default, the SAE IOR file is in the *var* folder, which is relative to the SNMP agent installation folder (*/opt/UMC/agent*). You need to change this property only if you installed the SNMP agent in a folder other than the default folder, or if you previously changed this property and now need it to point to the folder where the IOR file currently resides.
- Value—Path to the folder that contains the IOR
- Default—*/opt/UMC/agent/var*

Port Offset

- Port offset for SAE instances.
- Value—Integer
- Guidelines—Specify a port offset if you install multiple instances of the SAE on the same host.
- Default—0

Configuring SAE Attributes in Property Files

As an alternative to using the configuration GUIs, you can configure both local SAE properties and SAE properties stored in the directory by editing text files.

To configure the properties files:

1. Access the SAE installation directory.

```
cd /opt/UMC/sae
```

2. Edit the SAE local configuration file, *etc/default.properties*, as desired.
3. Retrieve the directory properties, and save them into a filename of your choice.

```
etc/config -g <filename>
```

4. Edit the directory properties file as desired.
5. Save the directory properties back into the directory.

```
etc/config -p <filename>
```



NOTE: The **-H** option displays help information for the **config** command.
