Chapter 29

Defining an Initial Configuration on a Solaris Platform

After you install the SRC software, you configure initial settings to get a basic configuration up and running. This chapter describes how to set up an initial configuration. Topics include:

Configuring Initial Component Settings and Starting Components

After you install the SRC software for the first time or upgrade an installation, you configure and start various SRC components.

To perform the initial basic configuration for an SRC environment:

1. Configure the data repository, and optionally load sample data.

   If you are using another directory server, see *SDX Integration Guide: Network Devices, Directories, and RADIUS Servers*.

2. If your configuration includes a RADIUS server, start it.

   See *SDX Integration Guide: Network Devices, Directories, and RADIUS Servers* for information about starting RADIUS servers.

3. Configure SAE local properties.

   See *Chapter 30, Setting Up an SAE on a Solaris Platform*.

4. Obtain and install your SRC software license.

   See *Chapter 8, Overview of SRC Licenses*, *Chapter 11, Installing Licenses for SRC Software on Solaris Platforms*, and *Chapter 12, Customizing and Managing the License Server*.

5. If you are using a license server, start it.

   See *Chapter 12, Customizing and Managing the License Server*.

6. Configure and start the SDX SNMP Agent.

   See *Chapter 31, Configuring and Starting the SDX SNMP Agent on a Solaris Platform*.

7. Start the SAE.

   See *Starting and Operating the SAE* on page 272.

8. If you use firewall software on your internal network, review firewall access for SRC components.

   See *Reviewing Port Settings for SRC Components* on page 274.

9. Configure other SRC components, see *Next Steps* on page 276.

Saving Logging Information for an SRC Component

Many SRC server processes (including the SAE server, NIC host server, SNMP agent server, and the license server) have been modified to use a daemon wrapper. The daemon wrapper script writes the output of its child process to the files *<server-install-dir>/stdout* and *<server-install-dir>/stderr*. For example, in the SAE these files are located by default in the */opt/UMC/sae/stdout* and */opt/UMC/sae/stderr* directories. The files include timestamps.

You can rotate these files without stopping the server process. The rotation method uses the standard UNIX method for reopening log files: When you want to rotate the logs, rename the current file and then send a SIGHUP signal to the process. The process ID is stored in the file *<server-install-dir>/var/run/daemon.pid*. For example in SAE, this file is located at */opt/UMC/sae/var/run/daemon.pid*. You can automate log rotation with system tools, such as **logadm** (Solaris 9) or **rotatelog**, see

http://www.sunfreeware.com

Starting and Operating the SAE

Starting the SAE is the final step in the SRC software installation and basic configuration process. Before you configure and start the SAE, make sure that you have completed the following:

- Installed and configured the supporting software.

- Installed, configured, and started the directory
- (Optional) Installed, configured, and started RADIUS servers.
- Started the directory, RADIUS, and license servers.
- Configured local properties for the SAE.

  See *Chapter 30, Setting Up an SAE on a Solaris Platform*.

By default, the SAE sends log events to the system log. You can also enable file loggers to write logs to text files.

For more information, see *SRC-PE Monitoring and Troubleshooting Guide, Chapter 2, Configuring Logging for SRC Components*.

Starting the SAE for the First Time

Starting the SAE for the first time requires root permission and a special script to add the virtual IP address.

To start the SAE from its host for the first time:

1. On the host on which the SAE is installed, log in as `root` or as an authorized nonroot admin user.
2. Start the SAE from its installation directory

   /opt/UMC/sae/etc/saeroot start

Whenever the host subsequently reboots, the installed SRC server components are restarted automatically.

You can also start the SAE from the SRC CLI, see *Chapter 16, Setting Up an SAE with the SRC CLI*.

Starting the SAE After Initial Startup

Use this procedure to start the SAE anytime after its initial startup.

To start the SAE from its host after the first time:

1. On the host on which the SAE is installed, log in as `root` or as an authorized nonroot admin user.
2. Start the SAE from its installation directory

   /opt/UMC/sae/etc/sae start

You can also start the SAE from the SRC CLI, see *Chapter 16, Setting Up an SAE with the SRC CLI*.

Monitoring the SAE

To verify that the SAE is running:

1. On the host on which the SAE is installed, log in as `root` or as an authorized nonroot admin user.

2. Display the status of the SAE from its installation directory

   /opt/UMC/sae/etc/sae status

   The system responds with a status message.

Stopping the SAE

To stop the SAE:

1. On the host on which the SAE is installed, log in as `root` or as an authorized nonroot admin user.

2. Stop the SAE from its installation directory

   /opt/UMC/sae/etc/sae stop

You can also stop the SAE from the SRC CLI, see *Chapter 16, Setting Up an SAE with the SRC CLI*.

Reviewing Port Settings for SRC Components

If you use firewall software within your internal network, ensure that firewall settings allow traffic to and from components in your SRC environment. Table 21 lists the default port settings for SRC components.

For information about default port settings for applications in the SRC application library, see *Chapter 1, Installing the SRC Applications* in the *SRC-PE Application Library Guide*.

Table 21: Default Port Settings for SRC Components

Component	Type of Communication	Default Port Setting
Applications, such as portals, that use the SAE Common Object Request Broker Architecture (CORBA) remote application programming interface (API)	CORBA remote API connections to the SAE.	TCP 8801
Cable modem termination system (CMTS) devices	Connection requests.	TCP 3918

Table 21: Default Port Settings for SRC Components (continued)

Component	Type of Communication	Default Port Setting
Sample residential portal with Tomcat[a]	Starting Tomcat server.	TCP 8005
	Apache JServ Protocol (AJP) requests for Tomcat.	TCP 8009
	Responses to incoming HTTP requests from Tomcat. This port is an alternative to port 80.	TCP 8080)
JBoss[b]	Remote method invocation (RMI) requests.	TCP 1099
	Communications for the Java Naming and Directory Interface (JNDI).	TCP 1100
License server	Messages from SAEs to the license server. All SAEs in a configuration must be able to reach the license server.	TCP 9000
LDAP	Communications between LDAP and other components in an SRC environment, such as the SAE, NIC, and SNMP.	TCP 389
Network information collector (NIC)	Communications between the NIC host and components, such as portals, that use the NIC. All components that use NIC resolution must be able to reach the NIC host.	TCP 8810
RADIUS	Communications between RADIUS and the SAE.	UDP 1812
	Communications between RADIUS and the SAE for RADIUS accounting.	UDP 1813
Redirect engine	Redirection requests.	TCP 8800
SAE	Common Open Policy Service (COPS) connection from JUNOSe routers.	TCP 3288
	Blocks Extensible Exchange Protocol (BEEP) connection from JUNOS routers.	TCP 3333
	BEEP with Transport Layer Security (TLS)	TCP 3434
	Session store data replication.	TCP 8820
SAE Web Admin	Secure HTTP.	TCP 8443
SNMP agent	SNMP communications between SNMP subagents and the master SNMP agent.	UDP 8030
	SNMP get and set messages.	UDP 161
	SNMP traps.	UDP 162

[a] For more information about ports that Tomcat uses, see http://jakarta.apache.org/tomcat
[b] For more information about ports that JBoss uses, see http://www.jboss.org/products/jbossas

In addition, we recommend that TCP port 123 be open for the Network Time Protocol (NTP). We recommend that you configure NTP to synchronize time on the network. See the documentation for the NTP server for your system.

Enabling Display of Help Topics for SRC Configuration Tools

In SDX Configuration Editor, SDX Admin, and SDX Policy Editor you can display information about how to use the application from the Help > Online Help or the Help > Help Contents menu.

To view the online Help:

- Ensure that a PDF viewer is installed on the Solaris platform.

  You can install the UMCxpdf package in the SRC software distribution, or use another PDF viewer that is installed on your system. If you use a PDF viewer other than xpdf, ensure that the PDF viewer is registered on the Solaris system.

To view the online Help for SDX Configuration Editor:

1. Ensure that a Web browser is installed on the Solaris platform.
2. Ensure that the xpdf viewer is registered with your Web browser.

   For information about how to register a PDF viewers with your Web browser, see the documentation for your Web browser.

Next Steps

If you are upgrading the SRC software from a previous release, return to *Chapter 28, Installing the SRC Software on a Solaris Platform*, and complete the upgrade procedure.

After you create the basic SRC configuration for the first time, or after you finish the upgrade procedure, you can configure other SRC components and establish configurations for service providers and enterprises. Table 22 lists the principle SRC components that you can configure and names the chapters that provide information about configuring the component.

Table 22: Configuration Information for Other SRC Components

Component	Document
LDAPS connections between SRC components and the directory	*SRC-PE Integration Guide, Chapter 8, Configuring LDAPS for SRC Components*
License server for SRC software installed on Solaris platforms	*Chapter 12, Customizing and Managing the License Server*
SNMP agent	*Chapter 23, Configuring and Starting the SNMP Agent with the SRC CLI* *Chapter 31, Configuring and Starting the SDX SNMP Agent on a Solaris Platform*
SAE	*SRC-PE Network Guide, Chapter 2, Configuring the SAE with the SRC CLI* *SRC-PE Network Guide, Chapter 3, Configuring the SAE with SDX Configuration Editor*

Table 22: Configuration Information for Other SRC Components (continued)

Component	Document
Logging	*SRC-PE Monitoring and Troubleshooting Guide, Chapter 3, Configuring Logging for SRC Components with the CLI* *SRC-PE Monitoring and Troubleshooting Guide, Chapter 4, Configuring Logging for SRC Components on a Solaris Platform*
Network information collector (NIC)	*SRC-PE Network Guide, Chapter 10, Configuring NIC with the SRC CLI* *SRC-PE Network Guide, Chapter 11, Configuring NIC on a Solaris Platform*
Web applications	*Chapter 33, Installing Web Applications*
Services	*SRC-PE Services and Policies Guide, Chapter 1, Managing Services with the SRC CLI* *SRC-PE Services and Policies Guide, Chapter 2, Managing Services on a Solaris Platform*
Subscribers and subscriptions	*SRC-PE Subscribers and Subscriptions Guide, Chapter 14, Configuring Subscribers and Subscriptions with the SRC CLI* *SRC-PE Subscribers and Subscriptions Guide, Chapter 13, Configuring Subscribers and Subscriptions with SDX Admin*
Policies	*SRC-PE Services and Policies Guide, Chapter 11, Configuring and Managing Policies with the SRC CLI* *SRC-PE Services and Policies Guide, Chapter 12, Configuring and Managing Policies with Policy Editor*
Residential portal	*SRC-PE Subscribers and Subscriptions Guide, Chapter 16, Installing and Configuring the Sample Residential Portal*
Enterprise Service Portals	*SRC-PE Subscribers and Subscriptions Guide, Chapter 27, Installing and Configuring Enterprise Service Portals*