Chapter 32
Before You Install the SRC Software on a Solaris Platform

This chapter provides information and procedures that you should read before you install the SRC software. Topics include:

Requirements to Install the SRC Software

Before you start to install the SRC software, make sure that you:

■ Have a license for the SRC software from Juniper Networks Customer Services and Support. For information about obtaining licenses, see *Chapter 8, Overview of SRC Licenses*.

■ Have identified which SRC components to install on various systems in the network.

■ Have a solid working knowledge of how to work in a UNIX environment, including how to perform tasks such as starting UNIX sessions, issuing commands on the UNIX command-line interface, mounting CDs, navigating through the file structure, and using a text editor to read and modify text files.

Required User Privileges to Install the SRC Software

Before you install the software, make sure that you have administrator root permissions on each host where you plan to install and configure SRC software. A root user is typically a system administrator who has the authority to install software and maintain the system.

If you want authorized users to execute commands as if they had root privileges, you can use the UNIX **sudo** command to enable these authorized users.

If you want authorized users with nonroot privileges to be able to configure and administer the SRC software, you can create nonroot users and groups with the UNIX **admintool** utility. See your Solaris documentation for more information. Alternatively, you can use the command described in *Installing the SRC Software on a Solaris Platform in Silent Mode* on page 270 to create nonroot users and groups.

> **NOTE:** You must install all SRC components as the same administrative user, either all as root or all as the same nonroot user. Installation of some components by the root user and others by a nonroot user causes problems.

SRC Software Distribution

Juniper Networks provides the SRC software for installation on Solaris platforms on two *SDX-300 Service Deployment System Software CDs*. These CDs contain the component software, supporting applications, and *Release Notes* needed to install and operate the SRC software. Throughout this book, we refer to the software distributed on these CDs as the SRC software distribution.

The *SRC Application Library CD* contains software for optional SRC applications. For information about the SRC Application Library, see the *SRC-PE Application Library Guide*.

The *SDX-300 Service Deployment System Software CDs* are labeled SDX disk 1 and SDX disk 2.

Table 15 describes the contents of SDX disk 1.

Table 15: Directories on SDX Disk 1

Directory	Contents (Directory Name or Description)
solaris	Package files to install the SRC software:
	omniORB, SMCpython, UMCagent, UMCcli, UMCdirxa, UMCecl, UMCeditor, UMCedsa, UMCiDSa, UMCjboss, UMCjdb, UMCjfds, UMCjps, UMCjre, UMClicsvr, UMCmig, UMCnaming, UMCnetsnmp, UMCnic, UMCoida, UMColdap, UMColdapa, UMCpom, UMCpyadd, UMCredir, UMCredmon, UMCsae, UMCsmg, UMCwebadm
solaris9	Directories for IP Filter:
	ipf, ipfx
tools	Files for the **verifyInst** command:
	criteria.cfg, verifyInst
webapp	Web archive (WAR) files for Web applications:
	entmgr.war, licsvrAdmin.war, nataddr.war, nicAdmin.war, pomAdmin.war, ssportal.war, tagsEntdemo.war
Release_Notes.pdf	Release Notes
UMCsdx.bin	SRC GUI installation program

Table 16 describes the contents of SDX disk 2.

Table 16: Directories on SDX Disk 2

Directory	Contents (Directory Name or Description)
gnu	Directory for Java Object Request Broker (ORB):
	JacORB
SDK	Directories for software development files:
	doc, idl, lib, lib-1.3, lib-1.4, mibs, plugin, scriptServices
solaris_patches	Directories that contain Solaris patch files:
	solaris9, solaris10
Steel_Belted_Radius	Package files to install Steel-Belted Radius:
	JNPRsbrsp, UMCsbrspa
Unsupported	Directories that contain unsupported software:
	ConfEd, RPMS, samples, Solaris, WinNT

System Requirements for Installing the SRC Software

All SRC components can typically be installed on a single Sun Solaris host that communicates across a network. The plan for your SRC implementation may require additional hosts to meet scalability and engineering requirements to distribute processing to other systems.

The detailed system requirements for each SRC component can vary greatly from installation to installation. You can consult with Juniper Networks Professional Services to determine the specific requirements for your SRC installation. The specifications depend on your particular needs, the number of customers you plan to service, and system usage. Basic requirements are listed in Table 17.

☞ **NOTE:** To determine the hardware requirements for third-party software, consult the documentation for that software.

You install the components listed in Table 17 on a Sun Solaris host.

For each component, ensure that the system meets the minimum memory requirements and minimum recommended disk space (to install and use a component) listed in Table 17.

Table 17: Minimum Memory and Minimum Disk Space Recommended for SRC Components on a Solaris Platform

Component Name	Memory	Disk Space	Notes
Server Components			
SAE	1 GB	50 MB	
Juniper Policy Server	1 GB	50 MB	
License server	1 GB	20 MB	
Network information collector (NIC) system	1 GB	50 MB	
Redundancy monitor system	1 GB	20 MB	
SNMP agent	1 GB	50 MB plus logging space	The SNMP agent does not operate on its own. It runs as a complementary component to other SRC components.
Management Tools			
Policy Editor	1 GB	5 MB plus logging space	
SDX Admin	1 GB	10 MB plus logging space	
Infrastructure Components			
AAA RADIUS server	1 GB	750 MB plus logging space	For exact space requirements for various versions of Steel-Belted Radius, see http://www.juniper.net/techpubs/software/ aaa_802/sbr.html
JBoss application Web server	1 GB	60 MB	For exact space requirements for various versions of JBoss, see http://www.jboss.org/products/jbossas
Captive Portal System			
IP filter	1 GB	20 MB	
Web redirect server	1 GB	20 MB	

Verifying System Resources with the SRC CLI

You can use an SRC command, **verifyInst**, to verify that the Solaris platform has adequate system resources before and after you install the SRC software. The **verifyInst** command checks the current installation against the following SRC hardware and software requirements on a Solaris platform:

- Disk space for software operation—Platform

- Host OS release version—Processor

- Memory—Swap

The **verifyInst** command is located in the */tools* directory in the SRC software distribution. You can issue the command directly from the CD. If you want to install a local copy on a host, you must copy the complete */tools* directory to the host.

To check system resources for all currently installed components:

- Issue the **verifyInst** command with no arguments:

  verifyInst

To check system resources for one or two packages:

- Issue the **verifyInst** command with the package name(s):

  verifyInst <package-Name> <package_name>

  For example, to check the UMColdap and UMColdapa packages enter:

  verifyInst UMColdap UMColdapa

To check disk space when the SRC software is installed into a directory other then the default (*/opt/UMC*):

- Issue the **verifyInst** command with the **-l** option to specify the directory:

  verifyInst -l <directory>

  When you run the **verifyInst** command to check disk space, the command examines the default installation directory (*/opt/UMC*).

  For example, if you installed the SRC software into the */base/SDX* directory, enter:

  verifyInst -l /base/SDX

The */tools/criteria.cfg* file specifies default hardware and software requirements.

To use a different file to specify hardware and software requirements:

1. Create a text file that uses the same syntax as the *criteria.cfg* file.

2. Issue the **verifyInst** command with the **-f** option to specify the new file:

   verifyInst -f <filename>

   For example, to specify the *my.cfg* file:

   verifyInst -f my.cfg

Network Requirements for the SRC Software

In a network that supports an SRC installation, ensure that:

- The systems on which SRC components run have network connectivity to each other.

- A domain name system (DNS) is configured on the network.

- Clocks on systems on which SRC components run are synchronized.

  Subscriber sessions may not be recognized if the clocks are not synchronized. We strongly recommend that you configure Network Time Protocol (NTP) on every server used for an SRC deployment.

- You define a mechanism to collect log information. Although, you can review the content of log files, we recommend that you use a syslog server for this purpose.

- You identify which router IP interfaces are to be managed as service deployment points.

SNMP Master Agent Requirements

The SDX SNMP agent cannot act as a master agent, and it can communicate with master agents only by using the Agent Extensibility (AgentX) protocol. The SDX SNMP agent runs as a subagent to an installed AgentX master agent.

Data Repository

The SRC software provides prepackaged integration for DirX directory server, eTrust Directory, Oracle Internet Directory, and Sun ONE Directory Server through add-on packages specific to a directory. You can also integrate other directories with the SRC software.

For information about the directory servers that you can integrate with the SRC software, see the *SRC-PE Release Notes.*

RADIUS Choices

Although the SRC software operates with other RADIUS systems, we currently support system integration only with Juniper Networks Steel-Belted Radius/SPE server and Interlink Networks RAD-Series AAA RADIUS.

SRC support for Challenge Handshake Authentication Protocol (CHAP) depends on the integrated RADIUS software. Steel-Belted Radius/SPE server supports CHAP, so when you use the Steel-Belted Radius/SPE server the SRC software supports CHAP.

For information about the RADIUS servers that you can integrate with the SRC software, see the *SRC-PE Release Notes.*

X-Window Server Software Recommendations

Many of the SRC graphical user interfaces (GUIs) supported on a Solaris platform, such as Policy Editor and SDX Admin, are X-Windows applications and require configuration of the X-Windows server to provide proper font and keyboard behavior. Failure to properly configure the X-Windows server can cause problems in certain circumstances; for example, if you try to use the Japanese locale without having the required Japanese fonts. If you have any questions about X-Windows server configuration, consult technical support or the user documentation for the X-Windows server that you are using.

Installing Solaris Patches for the UNIX Host

Before you install the SRC software or related components, such as a directory server, make sure that you install the appropriate Sun Solaris patches on the host. Sun Microsystems frequently issues patch clusters. We recommend that you keep your operating system up to date with Sun's recommended patches for the Solaris operating system.

☞ **NOTE:** Review the *SRC-PE Release Notes* for information about the latest patches required to install your Solaris software.

We provide SRC-required Java 2 Platform, Standard Edition (J2SE) patches in a patch cluster in the SRC software distribution. You can find patch clusters and additional information about Solaris and J2SE patches at the following URL:

> http://sunsolve.sun.com/pub-cgi/show.pl?target=patches/patch-access

See the Sun Solaris documentation for instructions on how to install the operating system and OS patches.

To install the J2SE patches from the SRC software distribution:

1. On the UNIX host, log in as `root`.

2. Place the SDX software disk 2 in the CD drive.

3. Follow the instructions in the *README* file appropriate to your operating system:

- Solaris 9—*.../solaris_patches/solaris9/README*

- Solaris 10—*.../solaris_patches/solaris10/README*

Related Topics

- *Chapter 33, Installing the SRC Software on a Solaris Platform.*

- *Chapter 39, Upgrading the SRC Software on a Solaris Platform.*