

Chapter 5

Integrating Sun ONE Directory Server

Sun ONE Directory Server is a software product by Sun Microsystems, Inc. that provides a central repository for storing and managing identity profiles, access privileges, and application and network resource information.

Use the information in this chapter to integrate Sun ONE Directory Server with Juniper Networks routers and the SDX software. Refer to the *SDX Release Notes* for information about compatibility of this SDX release with Sun ONE Directory Server releases.

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Overview of Sun ONE Directory Server Integration

You can integrate the Sun ONE Directory Server product into your SDX environment by installing an SDX add-on package and then installing Sun ONE Directory Server as specified in this chapter. Sun ONE Directory Server is based on industry-standard LDAP and provides advanced security features, carrier-grade scalability, performance, and availability. Sun ONE acts as a central repository for the consolidation of subscriber profiles.

You can use the information stored in Sun ONE Directory Server for the authentication and authorization of subscribers to enable secure access to enterprise and Internet services. Sun ONE helps to ensure that appropriate access control policies are enforced across all communities, applications, and services on a global basis.

About the Sun ONE Add-On Package

The Sun ONE Directory Server add-on package for the SDX software is called UMCiDSa. This package provides:

- The file *sdx.inf*, which integrates with Sun ONE's silent installation feature
- A load script and files in LDAP Data Interchange Format (LDIF) to integrate Sun ONE Directory Server with the SDX software

The */opt/UMC/conf/iDS* directory contains these files.

Silent Installation for Sun ONE Directory Server

Sun ONE's silent installation feature allows Sun ONE software to be embedded with the SDX software through the *sdx.inf* file. No user intervention is required during the setup process. Table 7 describes important setup script information provided in the *sdx.inf* file.

Table 7: Information Provided for the Sun ONE Setup Script

Configuration Property	Value
Installation path	<i>/opt/UMC/iDS</i>
Directory configuration administrator (Sun ONE entity)	admin
Password for directory configuration administrator	admin
LDAP port to be used for directory instance	389
Server identifier (Sun ONE specific). The directory instance is installed in the path: <i>/opt/UMC/iDS/slaped-sdx</i>	sdx
Suffix for new LDAP directory instance	<i>o = umc</i>
Identifier for superadministrator	<i>cn = umcAdmin, o = umc</i>
Password for superadministrator	admin123
Administrator's port	6666



NOTE: The uid-uniqueness plug-in is not enabled within the initial configuration of the Sun ONE Directory Server software. Because the SDX software does not require a globally unique user ID, this feature should remain disabled.

SDX Load Script to Integrate Sun ONE Directory Server

The **load** script performs the following tasks:

- Configures the password storage mechanism not to use encryption.

Because the Merit AAA Server (RADIUS) requires that passwords be stored as clear text, the **load** script changes a setting to not store the password in an encrypted manner.

- Extends the LDAP schema to:
 - Add SDX schema requirements
 - Index SDX attributes
 - Create the directory infrastructure for SDX entries
 - Load access control information

Sun One Directory Server stores the access control information in the `aci` attribute, which is available for all directory entries. The load script processes the *access.ldif file* to add required access control information.

- Lets you load sample data

Integrating the Sun ONE Directory with the SDX Software

The tasks to integrate the Sun ONE Directory Server with the SDX software are:

1. Installing the Solaris 8 or higher operating system and the patches that the Sun ONE directory server requires. See the documentation for Sun ONE directory Server for details.
2. Installing the Sun ONE Directory Add-On Package on page 58
3. Configuring an Instance of Sun ONE Directory Server on page 58

Before you can integrate the Sun ONE Directory Server software with the SDX software, you must have access to the Sun ONE Directory Server 5.1 Service Pack 2 software. The Sun ONE Directory Server Service Pack 2 software is not included with your SDX software.

Obtain the software by downloading the Sun ONE Directory Server 5.1 Service Pack 2 software from the Sun Microsystems Web site at:

<http://www.sun.com/software/download/products/3e5beea5.html>

Installing the Sun ONE Directory Add-On Package

You must install the Sun ONE Directory add-on package for the SDX software before you install Sun One Directory Server. For information about installing the package, see *SDX Getting Started Guide, Chapter 5, Installing the SDX-300 Software*.

Configuring an Instance of Sun ONE Directory Server

You must create a new instance of the Sun ONE Directory to integrate the Sun ONE Directory Server software with the SDX software.

To create an instance of Sun ONE Directory and integrate it with the SDX software:

1. Uncompress the archive file that you downloaded from the Sun Microsystems Web site by executing the command:

```
gzip -dc <filename> .tar.gz | tr -xvof-
```

where `< filename >` is the name of the TAR file.

2. Move to the directory that contains the expanded files.

For example, if you saved the downloaded file into the directory `/tmp/DS`, enter:

```
cd /tmp/DS
```

3. Enter the following command to install an instance of the directory by using the `sdx.inf` file:

```
./setup -s -f /opt/UMC/conf/iDS/sdx.inf
```

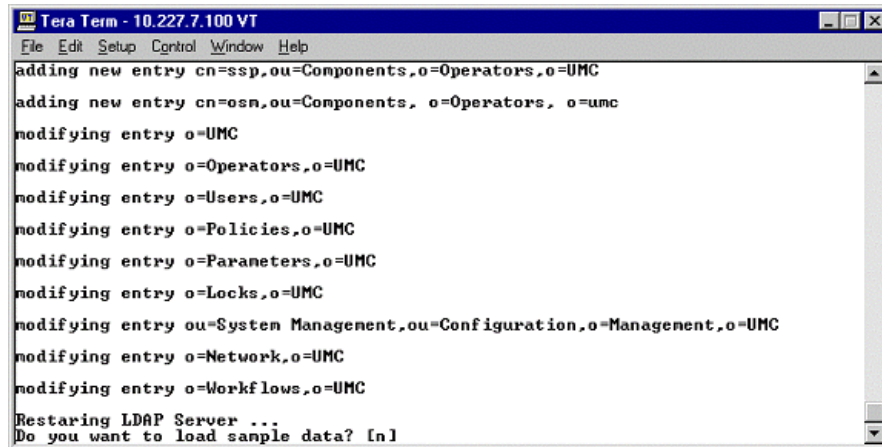
4. Move to the following directory:

```
/opt/UMC/conf/iDS
```

5. Enter the following command to run the `load` script:

```
./load
```

After the script updates the schema, loads the directory infrastructure, and creates the access controls, the script prompts you to load the sample data. An example is shown in the following window.



```

Tera Term - 10.227.7.100 VT
File Edit Setup Control Window Help
adding new entry cn=ssp,ou=Components,o=Operators,o=UMC
adding new entry cn=asn,ou=Components,o=Operators,o=umc
modifying entry o=UMC
modifying entry o=Operators,o=UMC
modifying entry o=Users,o=UMC
modifying entry o=Policies,o=UMC
modifying entry o=Parameters,o=UMC
modifying entry o=Locks,o=UMC
modifying entry ou=System Management,ou=Configuration,o=Management,o=UMC
modifying entry o=Network,o=UMC
modifying entry o=Workflows,o=UMC
Restarting LDAP Server ...
Do you want to load sample data? [n]

```

After the script finishes running, SDX components can use the Sun ONE Directory Server.

Starting Sun ONE Directory Server

To start Sun ONE Directory Server:

1. On the Sun ONE Directory Server host, log in as `root` or as an authorized nonroot admin user.
2. Start the Sun ONE Directory Server from its installation directory.

```
/opt/UMC/conf/iDS/ldap start
```

Stopping Sun ONE Directory Server

To stop Sun ONE Directory Server:

1. On the Sun ONE Directory Server host, log in as `root` or as an authorized nonroot admin user.
2. Stop the Sun ONE Directory Server from its installation directory.

```
/opt/UMC/conf/iDS/ldap stop
```

Restarting Sun ONE Directory Server

To restart Sun ONE Directory Server:

1. On the Sun ONE Directory Server host, log in as `root` or as an authorized nonroot admin user.
2. Restart the Sun ONE Directory Server from its installation directory.

```
/opt/UMC/conf/iDS/ldap restart
```

Backing Up the Sun ONE Database

You can manually back up the database for any directory you have installed. For information about migrating a directory database to another host, see *SDX Getting Started Guide, Chapter 12, Upgrading the SDX-300 Software*.

To back up the Sun ONE (formerly iPlanet) database:

1. Log in as `root`.
2. Access the database folder.

```
cd /opt/UMC/iDS/slappd-sdx
```

3. Back up the database.

```
./db2bak
```

This script makes a copy of the database and stores it in the following location:

```
/opt/UMC/iDS/slappd-sdx/bak/YYYY_MM_DD_HHMMSS
```

The backup directory identifies the date (YYYY_MM_DD) and time (HHMMSS) when the backup was created.

Restoring the Sun ONE Database

You can manually restore the database for any directory you have installed. For information about migrating a directory database to another host, see *SDX Getting Started Guide, Chapter 12, Upgrading the SDX-300 Software*.

To restore the Sun ONE database:

1. Log in as `root`.
2. Access the database folder.

```
cd /opt/UMC/iDS/slappd-sdx
```

3. Verify that the Sun ONE Directory Server is shut down. If it is not, shut it down.

```
./stop-slappd
```

4. Make sure you know the exact backup directory.
5. Run the *bak2db* script by typing:

```
./bak2db /opt/UMC/iDS/slapp-sdx/bak/YYYY_MM_DD_HHMMSS
```

where YYYY_MM_DD_HHMMSS identify the date and time when the database backup was created.

6. Start the Sun ONE server.

```
./start-slapp
```

