Chapter 11

Installing Licenses for SRC Software on Solaris Platforms

This chapter describes how to install SRC software licenses on Solaris platforms. Topics include:

Before You Install a License on a Solaris Platform

Before you install a license:

1. Make sure that the directory server is running.
2. Make sure that the appropriate local properties are configured
   - Pilot license—If you plan to use the **instlic** command to install the license (recommended), ensure that the SAE local properties have been configured.

     See *Chapter 30, Setting Up an SAE on a Solaris Platform*.
   - Server license
     - Ensure that the SAE local properties have been configured.

       See *Chapter 30, Setting Up an SAE on a Solaris Platform*.
     - Configure initial properties for the license server.

       See *Setting Up the License Server* on page 81.

Installing a Pilot License on a Solaris Platform

After you configure the SAE local parameters, you can install a pilot license in the directory with either the **instlic** command (recommended) or SDX Admin.

You can also install a pilot license from the SRC CLI, see *Chapter 9, Installing Licenses for C-series Platforms*.

Installing a Pilot License by Using the instlic Command

To install the pilot license:

1. Save the pilot license provided by Juniper Networks into a text file in the desired directory.

2. Issue the **instlic** command.

   /opt/UMC/sae/etc/instlic

   This command has the following syntax; see Table 9 on page 93 for details on the syntax:

   instlic [-h <ldapHost>] [-D <bindDN>] [-b <baseDN>]
   [-w <password>] [-W] <fileName>

   The installation script reads the license from the specified file.

The following sample command specifies a nondefault host address and base DN, prompts you for the password, and establishes the license contained in the *pilot.txt* file as the license:

```
/opt/UMC/sae/etc/instlic -h 10.25.2.4
-D cn=umcadmin,o=SDXbase -W pilot.txt
```

Installing a Pilot License by Using SDX Admin

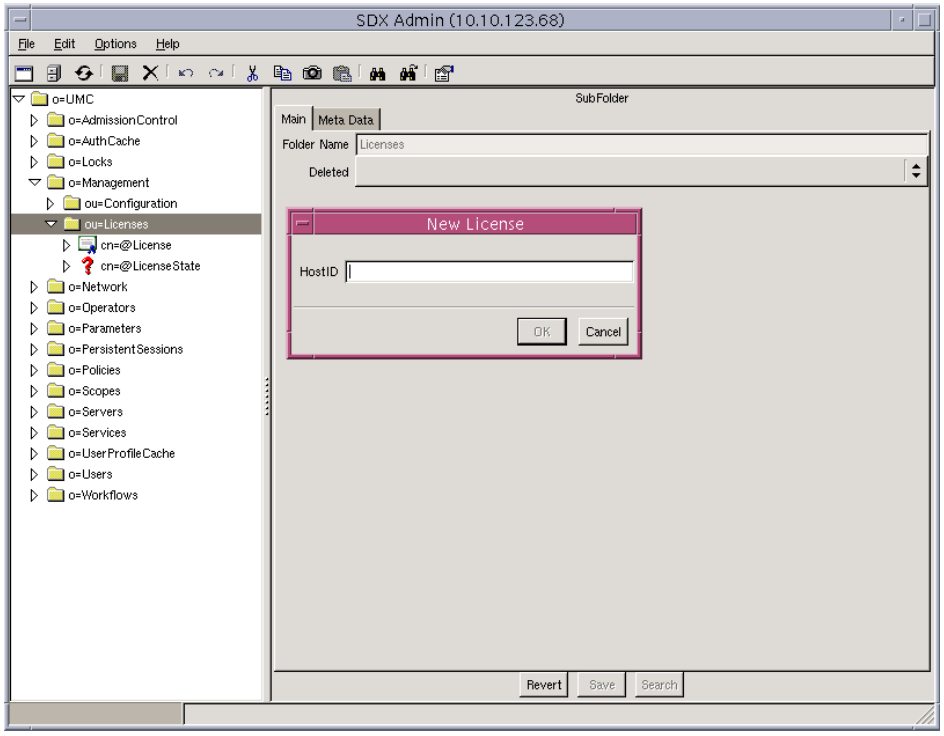
To install the pilot license:

1. Start SDX Admin.

   For information about starting and using SDX Admin, see *Chapter 38, Using SDX Admin*.

2. In the navigation pane of SDX Admin, expand the **Management** folder, right-click **Licenses**, select **New**, and click **License**.

   The New License dialog box appears.



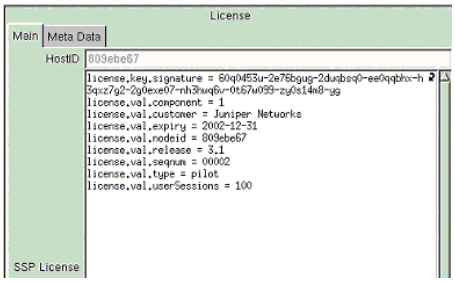
3. Enter the host ID value.

   See the *Chapter 8, Overview of SRC Licenses*.

4. Click **OK**.

   The value appears in the HostID field of the Main tab of the License pane.

5. Enter the license provided by Juniper Networks in the SSP License field of the Main tab of the License pane, and click **Save**.



6. Repeat Steps 3 and 5 for each host with its related host ID and license.

Installing a Server License on a Solaris Platform

After you configure the SAE local properties and you configure initial properties for the license server, you can install a server license.

To install a server license in the directory:

- Issue the **instlic** command from the license server's installation directory.

  cd /opt/UMC/licsvr/etc

  This command has the following syntax; see Table 9 on page 93 for details on the syntax:

  instlic [-h <ldapHost>] [-D <bindDN>] [-b <baseDN>]
  [-m] [-w <password>] [-W] <fileName>

The **instlic** command applies the name @License to the first license you install; this is the master license. Any subsequent licenses that you install are automatically named by the command as Lic-<#>; <#> is a sequence number starting at 0. SAE clients read the address of the license server from the master license.

When you upgrade the SRC software to a higher release, you must replace the current master license with a new master license obtained from Juniper Networks. The new master license will incorporate the version number of the higher release and a new signature. The **instlic** command automatically renames the old master license to Lic-<#> to retain it as a secondary license.

The following sample command specifies a nondefault host address and base DN, prompts you for the password, and establishes the license contained in the *second.txt* file as the master license:

/opt/UMC/licsvr/etc/instlic -h 10.25.2.4
-D cn=umcadmin,o=SDXbase -m -W second.txt

Verifying a License

After you install the license, you can use the **licchk** command to verify the license installation and to verify connectivity to the SRC license server. The command returns the license's relative distinguished name (RDN) and its attributes to a specified file. This command has the following syntax; see Table 9 on page 93 for details on the syntax:

```
licchk [-h <ldaphost>] [-D <bindDN>] [-b <baseDN>]
[-w <password>] -[o <outputFile>]
```

If you have configured nondefault bind credentials (in the LDAP Connection dialog box) for the directory server, then you must use one or more of the command options to specify the attribute value.

The following sample command specifies a nondefault host address, base DN, and password:

```
/opt/UMC/sae/etc/licchk -h 10.13.1.5 -D cn=umcadmin,o=SDXbase -w acp45
```

If the directory server uses the default bind credentials, you can simply issue the following command:

```
/opt/UMC/sae/etc/licchk
```

Command Options for the instlic and licchk Commands

Table 9 defines the options available to the **instlic** and **licchk** commands.

Table 9: Options for the instlic and licchk Commands

Option	Available to Command	Description
-b <baseDN>	instlic, licchk	Specifies the distinguished name of the base object in the LDAP schema of the directory server. The default value is read from */opt/UMC/licsvr/etc/bootstrap.properties*.
-D <bindDN>	instlic, licchk	Specifies the distinguished name used for binding to the directory server. The default value is read from */opt/UMC/licsvr/etc/bootstrap.properties*.
<fileName>	instlic	Required. Specifies the name of the text file that contains the license from Juniper Networks. You can specify either only a filename relative to the current directory or an absolute path that includes the filename.
-h <ldapHost>:<port>	instlic, licchk	Specifies the IP address or hostname, and optionally the port number of the directory server. The default value is read from */opt/UMC/licsvr/etc/bootstrap.properties*.
-H	instlic, licchk	Lists the command options.
-m	instlic	Installs the license as the master license (@License). The previous master license is renamed to Lic-<#>. You might use this option if the location of the license server has changed. Option not available for pilot licenses.
-o <outputFile>	licchk	Specifies the name of the file in which you store the results of the **licchk** command.

Table 9: Options for the instlic and licchk Commands (continued)

Option	Available to Command	Description
-w <password>	instlic, licchk	Specifies the bind password for authentication with the directory server. The default value is read from */opt/UMC/licsvr/etc/bootstrap.properties*.
-W	instlic, licchk	Causes the command to prompt you for the password

Configuring the License Manager for an SAE on a Solaris Platform

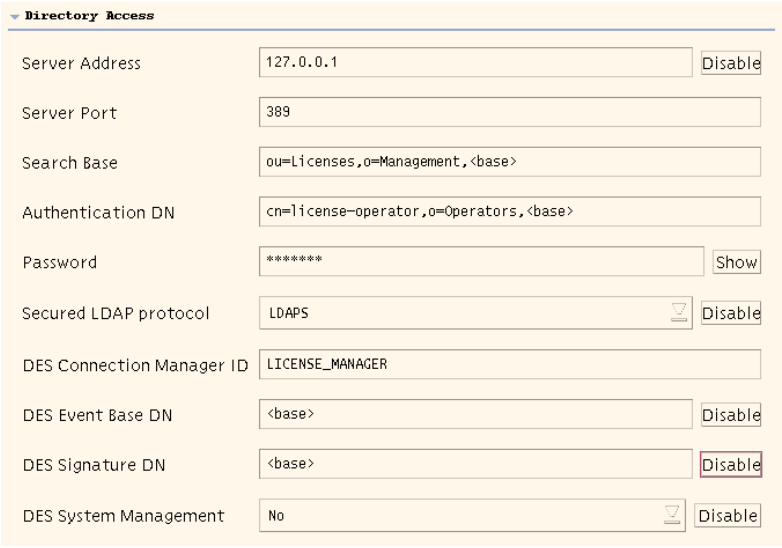
The license manager for an SAE maintains the licenses for the SAE and communicates with the license server to manage licenses needed by the SAE. The SAE license manager properties specify SAE client properties and access to the directory in which SRC license data is stored. The SAE license manager reads the server license to identify the license server to which it connects.

To use SDX Configuration Editor to configure SAE properties for the license manager:

1. Select a directory configuration object for the SAE.
2. Select the **License Manager** tab.
3. Configure the properties for License Manager by using the fields in *Directory Access Fields* on page 94 and *Client Fields* on page 97.

Directory Access Fields

The directory access configuration defines the connection from the SAE to the directory in which SRC license data is stored and directory eventing parameters for the data.



Server Address

- Disables or enables and identifies the directory server that stores licensing data.
- Value—IP address or hostname; use a space to separate addresses for multiple directory servers: 127.153.27.1 192.168.0.1
- Default—Disabled
- Property name—LicenseMgr.repository.ldap.server.address

Server Port

- Port number of the LDAP connection to the directory server that stores licensing data.
- Value—Integer in the range 1–65535
- Default—389
- Property name—LicenseMgr.repository.ldap.server.port

Search Base

- Subtree in the directory where licensing information is stored. The SAE searches for the license key below this path.
- Value— < DN >

  You can use the special value < base > to refer to the globally configured base DN.

- Default—*ou = Licenses, o = Management, < base >*
- Property name—LicenseMgr.repository.ldap.server.base.dir

Authentication DN

- DN used by the SAE to authenticate access to the directory server.
- Value— < DN >

  You can use the special value < base > to refer to the globally configured base DN.

- Default—*cn = license-operator, o = Operators, < base >*
- Property name—LicenseMgr.repository.ldap.server.authDN

Password

- Password used to authenticate access to the directory.
- Value—Text string or Base64 string
- Default—License
- Property name—LicenseMgr.repository.ldap.server.password

Secured LDAP protocol

- Enables or disables LDAPS as the secure protocol for connections to the directory server that stores license data.

- Value—Enable or Disable
- Default—Disable
- Property name—LicenseMgr.repository.ldap.server.security.protocol

DES Connection Manager ID

- DES connection manager within the Java Naming and Directory Interface (JNDI) framework.
- Value—Text string
- Default—LICENSE_MANAGER
- Property name—LicenseMgr.repository.ldap.server.des.connection_manager_id

DES Event Base DN

- Disables or enables and sets the base DN for the license manager data.
- Value— < DN >

  You can use the special value < base > to refer to the globally configured base DN.

- Default— < base >
- Property name—LicenseMgr.repository.ldap.server.des.event_baseDN

DES Signature DN

- Disables or enables and sets the DN of the entry that specifies the LDAP schema attribute usedDirectory. This attribute identifies the type of directory, such as DirX on which the license data is stored.

  See *Chapter 32, Distributing Directory Changes to SRC Components on a Solaris Platform*.

- Value— < DN >

  You can use the special value < base > to refer to the globally configured base DN.

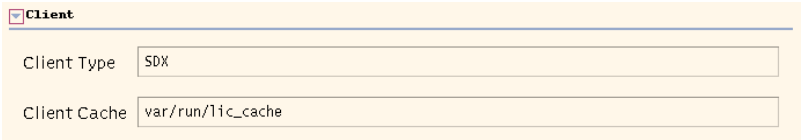
- Default—Disabled
- Property name—LicenseMgr.repository.ldap.server.des.signatureDN

DES System Management

- Specifies whether the SRC SNMP agent exports MIBs for this directory connection.
- Value—Yes or No
- Default—No
- Property name—LicenseMgr.repository.ldap.server.des.enable_sysman

Client Fields

The Client configuration sets the SAE client properties.



Client Type

- Type of the license client.
- Value—SDX is currently the only valid value.
- Default—SDX
- Property name—LicenseMgr.license.client.type

Client Cache

- Path to a cache file.
- Value—Valid path
- Default—*var/run/lic_cache*
- Property name—LicenseMgr.license.client.cache