Chapter 30
Configuring Local Properties with the SRC CLI

This chapter describes how to use the SRC CLI to configure local properties for SRC components. You can use the CLI to configure local properties on a Solaris platform or on a C-series Controller.

You can also use SRC configuration applications to configure initial properties on a Solaris platform. See the documentation for the component that you are configuring.

Topics in this chapter include:

- Local Properties for SRC Components on page 235

- Configuration Statements for Local Configuration on page 236

- Configuring Basic Local Properties on page 237

- Changing the Location of Data in the Directory on page 238

- Configuring Directory Connection Properties on page 239

- Configuring Initial Directory Eventing Properties for SRC Components on page 240

- Verifying the Local Configuration for a Component on page 242

Local Properties for SRC Components

Before you configure an SRC component, configure the component's local properties. In many cases you can use the default configuration. From the CLI, local properties are configured for a slot. On a C-series Controller, the slot configuration is applied to the appropriate slot. On a Solaris platform, configuration for slot 0 provides the local configuration; however, the slot is not associated with a hardware slot.

Configuration Statements for Local Configuration

Use the following configuration statements to configure local properties for a component. You enter these statements at various hierarchy levels for different SRC components. This list shows the configuration common to a number of components. For information about configuration specific to a component, such as SAE, NIC, SRC-ACP, or SNMP, see the documentation for that component.

```
slot number component-name {
    base-dn base-dn;
    java-runtime-environment java-runtime-environment;
    java-heap-size java-heap-size;
    snmp-agent;
}

slot number component-name initial {
    static-dn static-dn;
    dynamic-dn dynamic-dn;
}

slot number component-name initial directory-connection {
    url url;
    backup-urls [backup-urls...];
    principal principal;
    credentials credentials;
    protocol (ldaps);
    timeout timeout;
    check-interval check-interval;
    blacklist;
    snmp-agent;
}

slot number component-name initial directory-eventing {
    eventing;
    signature-dn signature-dn;
    polling-interval polling-interval;
    event-base-dn event-base-dn;
    dispatcher-pool-size dispatcher-pool-size;
}
```

For detailed information about each configuration statement, see the *SRC-PE CLI Command Reference*.

Configuring Basic Local Properties

In most cases you can use the default operating properties. Change the default properties if needed for your environment.

Use the following configuration statements to configure basic local properties for a component:

```
slot number component-name {
    base-dn base-dn;
    java-runtime-environment java-runtime-environment;
    java-heap-size java-heap-size;
    snmp-agent;
}
```

To review the default local configuration and then change values:

1. From configuration mode, access the configuration statement that specifies the slot configuration for a component.

    ```
    [edit]
    user@host# edit slot number nic
    ```

    For example:

    ```
    [edit]
    user@host# edit slot 0 nic
    ```

2. To view the default configuration, run the **show** command. For example:

    ```
    [edit slot 0 nic]
    user@host# show
    base-dn o=umc;
    java-runtime-environment ../jre/bin/java;
    java-heap-size 128m;
    hostname DemoHost;
    initial {
    ```

    👉 **NOTE:** The hostname statement is specific to the NIC.

    ---

3. (Optional) If you store data in the directory in a location other than the default, *o = umc*, change this value.

    ```
    [edit slot 0 nic]
    user@host> set base-dn base-dn
    ```

4. (Optional) If the Java Runtime Environment (JRE) is not in the default location (*../jre/bin/java*) on a Solaris platform, change the directory path to the JRE.

    ```
    [edit slot 0 nic]
    user@host> set java-runtime-environment java-runtime-environment
    ```

5. (Optional) If you encounter problems caused by lack of memory, change the maximum memory size available to the JRE.

    [edit slot 0 nic]
    user@host> **set java-heap-size** *java-heap-size*

6. (Optional) Enable viewing of SNMP counters through an SNMP browser.

    [edit slot 0 nic]
    user@host> **set snmp-agent**

Changing the Location of Data in the Directory

In most cases, you use the default configuration for the location of SRC data in the directory:

■   Administrator-defined configuration
    data—*ou = staticConfiguration,ou = Configuration,o = Management,o = umc*

■   Programmatically defined configuration
    data—*ou = dynamicConfiguration,ou = Configuration,o = Management, o = umc*

You can specify the full distinguished name (DN), or a DN relative to a base DN, identified as *< base >*.

You can change the location of data in the directory at the Expert CLI editing level.

Use the following configuration statements to change the location of data for a component in the directory:

slot *number component-name* initial {
    static-dn *static-dn*;
    dynamic-dn *dynamic-dn*;
}

To change the location of data in the directory:

1. From configuration mode, access the configuration statement that specifies the configuration for a component on a slot.

    [edit]
    user@host# **edit slot** *number* **nic initial**

    For example:

    [edit]
    user@host# **edit slot 0 nic initial**

2. (Optional) Change the location of administrator-defined configuration data in the directory

    [edit slot 0 nic initial]
    user@host# **set** static-dn *static-dn*

3. (Optional) Change the location of programmatically defined configuration data in the directory.

   [edit slot 0 nic initial]
   user@host# **set** dynamic-dn *dynamic-dn*

Configuring Directory Connection Properties

Use the following configuration statements to configure directory properties for a component:

```
slot number component-name initial directory-connection {
    url url;
    backup-urls [backup-urls…];
    principal principal;
    credentials credentials;
    protocol (ldaps);
    timeout timeout;
    check-interval check-interval;
    blacklist;
    snmp-agent;
}
```

To configure directory connection properties for a component:

1. From configuration mode, access the configuration statement that specifies the directory configuration for a component on a slot.

   user@host# **edit slot** *number component* **initial directory-connection**

   For example:

   user@host# **edit slot 0 nic initial directory-connection**

2. Specify the URL that identifies the location of the primary directory server.

   [edit slot 0 nic initial directory-connection]
   user@host# **set** url *url*

   On a C-series Controller, this value is ldap://127.0.0.1:389.

3. (Optional) Specify URLs that identify the locations of backup directory servers. Backup servers are used if the primary directory server is not accessible.

   [edit slot 0 nic initial directory-connection]
   user@host# **set** backup-urls *directory-backup-url1 directory-backup-url2*

4. Specify the DN that the SRC component uses for authentication to access the directory.

   [edit slot 0 nic initial directory-connection]
   user@host# **set** principal *principal*

5. Specify the password with which the SRC component accesses the directory.

   [edit slot 0 nic initial directory-connection]
   user@host# **set** credentials *credentials*

6. (Optional) Specify whether the connection to the directory uses secure LDAP. If you do not configure a security protocol, plain socket is used.

   [edit slot 0 nic initial directory-connection]
   user@host# **set** protocol ldaps

7. (Optional) Specify the maximum amount of time during which the directory must respond to a connection request.

   [edit slot 0 nic initial directory-connection]
   user@host# **set timeout** *timeout*

8. (Optional) Specify the time interval at which the software attempts to connect to the directory.

   [edit slot 0 nic initial directory-connection]
   user@host# **set check-interval** *check-interva*l

9. (Optional) Enable the directory eventing system to prevent a connection to a directory after the directory fails to respond during an interval in which the directory was polled 10 times.

   [edit slot 0 nic initial directory-connection]
   user@host# **set blacklist**

10. Specify that the SDX SNMP agent exports MIBs for this directory connection.

   [edit slot 0 nic initial directory-connection]
   user@host# **set snmp-agent**

Configuring Initial Directory Eventing Properties for SRC Components

You can use the default configuration for directory eventing properties, or you can change the configuration to comply with your environment.

For information about the default setting for the directory eventing properties, see the *SRC-PE CLI Command Reference*.

For information about directory eventing, see *Chapter 29, Distributing Directory Changes to SRC Components*.

The following configuration statements configure initial directory eventing properties for a component:

```
slot number sae initial directory-eventing {
    eventing;
    signature-dn signature-dn;
    polling-interval polling-interval;
    event-base-dn event-base-dn;
    dispatcher-pool-size dispatcher-pool-size;
}
```

To change directory eventing configuration:

1. From configuration mode, access the configuration statement that specifies the initial eventing configuration for a component on a slot.

   [edit]
   user@host# **edit slot** *number component* **initial directory-eventing**

   For example:

   [edit]
   user@host# **edit slot 0 nic initial directory-eventing**

2. (Optional; Solaris platform.) Specify the DN of the directory entry that specifies the usedDirectory attribute for the SRC CLI. The usedDirectory attribute identifies the vendor of the directory server.

   [edit slot 0 nic initial directory-eventing]
   user@host# **set signature-dn** *signature-dn*

   Use the default value on a C-series Controller

3. (Optional) Specify an interval at which an SRC component polls the directory to check for directory changes.

   [edit slot 0 nic initial directory-eventing]
   user@host# **set polling-interval** *polling-interval*

4. (Optional) Specify the DN of an entry superior to the data associated with an SRC component in the directory.

   [edit slot 0 nic initial directory-eventing]
   user@host# **set event-base-dn** *event-base-dn*

   On a Solaris platform, if you are storing non-SRC data in the directory, and that data changes frequently whereas the SRC data does not, you may need to adjust the default value to improve performance. For optimal performance, set the value to the DN of an entry superior to both the SRC data and the changing non-SRC data.

5. (Optional) Specify the number of events that an SRC component can receive simultaneously from the directory.

   [edit slot 0 nic initial directory-eventing]
   user@host# **set dispatcher-pool-size** *dispatcher-pool-size*

Verifying the Local Configuration for a Component

To verify the local configuration for a component:

1. From configuration mode, access the configuration statement that configures the slot connection. For example, to verify the slot configuration for the NIC:

   user@host# **edit slot 0 nic**

2. Run the show command. For example:

```
[edit slot 0 nic ]
user@host# show
base-dn o=umc;
java-runtime-environment ../jre/bin/java;
java-heap-size 128m;
snmp-agent;
hostname DemoHost;
initial {
  dynamic-dn "ou=dynamicConfiguration, ou=Configuration,
o=Management,<base>";
  directory-connection {
    url ldap://127.0.0.1:389/;
    backup-urls ;
    principal cn=nic,ou=Components,o=Operators,<base>;
    credentials ********;
    timeout 10;
    check-interval 60;
  }
  directory-eventing {
    eventing;
    signature-dn <base>;
    polling-interval 15;
    event-base-dn <base>;
    dispatcher-pool-size 1;
  }
  static-dn "l=OnePop,l=NIC, ou=staticConfiguration, ou=Configuration,
o=Management,<base>";
}
```