

## Chapter 12

# Configuring and Starting the SNMP Agent with the C-Web Interface

This chapter describes how to use the C-Web interface to configure and run the SDX Simple Network Management Protocol (SNMP) agent in the SRC environment. The SNMP agent monitors host resources and the SRC components that use the host resources. You can use the CLI to configure the SNMP agent on a Solaris platform or on a C-series Controller. See *SRC-PE Getting Started Guide, Chapter 28, Configuring and Starting the SNMP Agent with the SRC CLI*.

Topics in this chapter include:

- Configuring the SDX SNMP Agent on page 98
- Configuring General Properties for the SDX SNMP Agent on page 99
- Configuring Initial Properties for the SDX SNMP Agent on page 99
- Configuring Directory Connection Properties for the SDX SNMP Agent on page 99
- Configuring Directory Monitoring Properties for the SDX SNMP Agent on page 99
- Configuring Logging Destinations for the SDX SNMP Agent on page 100
- Configuring JRE Properties on page 100
- Configuring the SNMP Agent on page 100
- Configuring System Information for the SNMP Agent on page 101
- Configuring Access Control for SNMPv3 Users on page 101
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- Operating the SNMP Agent on page 105
- Starting the SDX SNMP Agent on page 105
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For more information about the SNMP agent, see *SRC-PE Monitoring and Troubleshooting Guide, Chapter 9, Configuring the SNMP Traps with the SRC CLI*.

## Configuring the SDX SNMP Agent

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The SNMP agent obtains most of its information from the directory, but you configure the local properties that cannot be stored in the directory.

To configure the local properties for the SDX SNMP agent:

1. Configure general properties for the SDX SNMP agent, including trap history limit, component polling interval, and protocol log level.

See *Configuring General Properties for the SDX SNMP Agent on page 99*.

2. Configure initial properties for the SDX SNMP agent, including the connection from the SDX SNMP agent to the directory and directory monitoring properties.

See *Configuring Initial Properties for the SDX SNMP Agent on page 99*.

See *Configuring Directory Connection Properties for the SDX SNMP Agent on page 99*.

See *Configuring Directory Monitoring Properties for the SDX SNMP Agent on page 99*.

3. Configure logging destinations for the SDX SNMP agent.

See *Configuring Logging Destinations for the SDX SNMP Agent on page 100*.

4. (Optional) Configure the Java heap memory for the SDX SNMP agent.

See *Configuring JRE Properties on page 100*.

After you configure the local properties for the SDX SNMP agent, you can configure the SNMP agent. See *Configuring the SNMP Agent on page 100*.

### Related Topics

- For more information about the directory connection and monitoring properties, see *SRC-PE Getting Started Guide, Chapter 30, Configuring Local Properties with the SRC CLI*.

- For more information about logging, see *SRC-PE Monitoring and Troubleshooting Guide, Chapter 2, Configuring Logging for SRC Components* and *SRC-PE Monitoring and Troubleshooting Guide, Chapter 3, Configuring Logging for SRC Components with the CLI*.

## Configuring General Properties for the SDX SNMP Agent

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To configure properties for the SDX SNMP agent:

1. Click **Configure**, and expand **SNMP > Agent**.

The SNMP pane appears.

2. Enter information as described in the Help text in the main pane, and then click **Apply**.

## Configuring Initial Properties for the SDX SNMP Agent

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To configure properties for the SDX SNMP agent:

1. Click **Configure**, and expand **SNMP > Agent > Initial**.

The Initial pane appears.

2. Enter information as described in the Help text in the main pane, and then click **Apply**.

## Configuring Directory Connection Properties for the SDX SNMP Agent

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To configure directory connection properties:

1. Click **Configure**, and expand **SNMP > Agent > Initial > Directory Connection**.

The Directory Connection pane appears.

2. Enter information as described in the Help text in the main pane, and then click **Apply**.

## Configuring Directory Monitoring Properties for the SDX SNMP Agent

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To configure properties for the SDX SNMP agent:

1. Click **Configure**, and expand **SNMP > Agent > Initial > Directory Eventing**.

The Directory Eventing pane appears.

2. Enter information as described in the Help text in the main pane, and then click **Apply**.

## Configuring Logging Destinations for the SDX SNMP Agent

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To configure logging destinations:

1. Click **Configure**, and expand **SNMP > Agent**.
2. From the Create new list, select **Logger**.
3. Enter a name for the new Logger in the dialog box, and click **OK**.
4. For file-based logging, from the side pane, expand **File**, enter information as described in the Help text in the main pane, and then click **Create**.
5. For syslog-based logging, expand **Syslog**, enter information as described in the Help text in the main pane, and then click **Create**.

## Configuring JRE Properties

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To configure properties for the SDX SNMP agent:

1. Click **Configure**, and expand **SNMP > Agent > Java**.

The Java pane appears.

2. Enter information as described in the Help text in the main pane, and then click **Apply**.

## Configuring the SNMP Agent

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To configure the SNMP agent to control its operation:

1. Configure information supplied by the SNMP agent, including the listening address and system information.

See *Configuring System Information for the SNMP Agent* on page 101.

2. Configure access control for the SNMP agent, including access for SNMPv3 users, SNMPv1 and SNMPv2 communities (traditional access control), and the view-based access control model (VACM).

See *Configuring Access Control for SNMPv3 Users* on page 101.

See *Configuring Access Control for Communities* on page 102.

See *Configuring Access Control for the VACM* on page 102.

3. Configure active monitoring.

See *Configuring Notification Targets* on page 104.

## Configuring System Information for the SNMP Agent

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To configure properties for the SNMP agent:

1. Click **Configure**, and expand **SNMP > Agent**.

The Agent pane appears.

2. Enter information as described in the Help text in the main pane, and then click **Apply**.

## Configuring Access Control for SNMPv3 Users

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To configure access control for SNMPv3 users:

1. Click **Configure**, and expand **SNMP > V3 > USM > Local Engine**.
2. From the Create new list, select **User**.
3. Enter a name for the new User in the dialog box, and click **OK**.
4. From the side pane, expand the name of the user, and (optional) specify the authentication type and (optional) the encryption.



**NOTE:** Before you configure encryption, you must configure the authentication type.

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## Configuring Authentication

To configure the authentication type for SNMPv3 users:

1. Click **Configure**, and expand **SNMP > V3 > USM > Local Engine**.
2. To configure MD5 authentication, from the side pane, expand the name of the user, and click **Authentication MD5**.
3. To configure SHA authentication, from the side pane, expand the name of the user, and click **Authentication SHA**.
4. Specify the authentication password as described in the Help text in the main pane, and then click **Create**.

The password must be at least eight characters.

## Configuring Encryption

Before you configure encryption, you must configure the authentication type. See *Configuring Authentication* on page 101.

To configure encryption for SNMPv3 users:

1. Click **Configure**, and expand **SNMP > V3 > USM > Local Engine**.
2. To configure AES encryption, from the side pane, expand the name of the user, and click **Privacy AES**.
3. To configure DES encryption, from the side pane, expand the name of the user, and click **Privacy DES**.
4. Specify the authentication password as described in the Help text in the main pane, and then click **Create**.

The password must be at least eight characters.

## Configuring Access Control for Communities

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To configure community strings:

1. Click **Configure > SNMP**.
2. From the Create new list, select **Community**.
3. Enter a name for the new Community in the dialog box, and click **OK**.
4. From the side pane, expand the name of the community, enter information as described in the Help text in the main pane, and then click **Apply**.

## Configuring Access Control for the VACM

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To configure the access control for the view-based access control model (VACM):

1. Map an SNMPv1 or SNMPv2c community name to a security name.  
See *Associating Security Names with a Community* on page 102.
2. Define a named view.  
See *Defining Named Views* on page 103.
3. Map from a group of users or communities to a view.  
See *Defining Access Privileges for an SNMP Group* on page 103.
4. Map a security name into a named group.  
See *Assigning Security Names to Groups* on page 104.

## Associating Security Names with a Community

For SNMPv1 or SNMPv2c packets, you must assign security names to groups at the [edit snmp v3 vacm security-to-group] hierarchy level, and you must associate a security name with an SNMP community.

To configure the community:

1. Click **Configure > SNMP > V3**.
2. From the Create new list, select **SNMP Community**.
3. Enter a name for the new SNMP Community in the dialog box, and click **OK**.
4. From the side pane, expand the name of the SNMP community, enter information as described in the Help text in the main pane, and then click **Apply**.

### **Defining Named Views**

To configure named views:

1. Click **Configure**, and expand **SNMP**.
2. From the Create new list, select **View**.
3. Enter a name for the new View in the dialog box, and click **OK**.
4. From the side pane, expand the name of the view,
5. From the Create new list, select **OID**.
6. Enter a name for the new OID in the dialog box, and click **OK**.

The View OID pane appears.

7. Enter information as described in the Help text in the main pane, and then click **Apply**.

### **Defining Access Privileges for an SNMP Group**

To configure MIB views with a group for the VACM:

1. Click **Configure**, and expand **SNMP > V3 > VACM > Access**
2. From the Create new list, select **Group**.
3. Enter a name for the new Group in the dialog box, and click **OK**.

The group name is the name for a collection of SNMP security names that belong to the same SNMP access policy.

4. From the side pane, expand the name of the group, click on **Default Context Prefix**,
5. From the Create New box, select the Security Model for access privileges.

6. From the Create New box, select the Security Level for access privileges.

The Security pane appears.

7. Enter information as described in the Help text in the main pane, and then click **Apply**.

### **Assigning Security Names to Groups**

For SNMPv1 or SNMPv2c packets, you must assign security names to groups and you must associate a security name with an SNMP community.

To map security names to groups for the VACM:

1. Click **Configure**, and expand **SNMP > V3 > VACM**.
2. Expand the desired **Security Model** and desired **Security Name**, enter information as described in the Help text in the main pane, and then click **Apply**.

### **Configuring Notification Targets**

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To configure notification targets:

1. Click **Configure > SNMP > Notify**.

The Notify pane appears.

2. From the Create New box, select Target, enter the name of the target, and click **OK**.

The Target pane appears.

3. Enter information as described in the Help text in the main pane, and then click **Apply**.

### **Configuring Performance Traps**

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To configure performance traps:

1. Click **Configure > SNMP > Notify**, and expand **Alarm**.

2. From the Create New box, select the category and associated traps, and click **OK**.

The Alarm pane appears.

3. Enter information as described in the Help text in the main pane, and then click **Apply**.

## Configuring Event Traps

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To configure event traps:

1. Click **Configure > SNMP > Notify**, and expand **Event**.
2. From the Create New box, select the category and the category name, and click **OK**.

The Category pane appears.

3. From the Create New box, select the event and click **OK**,

The Event pane appears.

4. Enter information as described in the Help text in the main pane, and then click **Apply**.

## Operating the SNMP Agent

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You must configure the SNMP agent and then manually start the agent. If you attempt to manually start the SNMP agent before it is configured, the software displays a message that the agent has not been configured and cannot start.

The SNMP agent automatically restarts in the event of a host reboot or process failure that stops the agent.

## Starting the SDX SNMP Agent

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Before you start the SDX SNMP agent:

1. Perform the initial configuration tasks.

See *Chapter 4, Configuring a C-series Controller*.

2. Configure the SDX SNMP agent.

See *Configuring the SDX SNMP Agent on page 98*.

Manually start the SDX SNMP agent the first time it runs. Thereafter, the agent automatically restarts.

To start the SNMP agent:

1. Click **Manage > Enable**.
2. From the Component box, select agent.

The system responds with a start message. If the SNMP agent is already running, the system responds with a warning message indicating that fact.

## Stopping the SDX SNMP Agent

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To stop the SNMP agent:

1. Click **Manage > Disable**.
2. From the Component box, select **agent**.

The system responds with a stop message. If the SNMP agent is not running when you issue the command, the software responds with a warning message indicating that fact.

## Monitoring the SDX SNMP Agent

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To display the SDX SNMP agent status:

1. Click **Monitor > Component**.

The system responds with a status message.