SNMP for the Firepower 1000

This chapter describes how to configure SNMP for the Firepower 1000.

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About SNMP for the Firepower 1000

The Simple Network Management Protocol (SNMP) is an application-layer protocol that provides a message format for communication between SNMP managers and agents. SNMP provides a standardized framework and a common language used for the monitoring and management of devices in a network.

The SNMP framework consists of three parts:

- An SNMP manager—The system used to control and monitor the activities of network devices using SNMP.
- An SNMP agent—The software component within the Firepower 1000 chassis that maintains the data for the Firepower chassis and reports the data, as needed, to the SNMP manager. The Firepower chassis includes the agent and a collection of MIBs. To enable the SNMP agent and create the relationship between the manager and agent, enable and configure SNMP in the management center.
- A managed information base (MIB)—The collection of managed objects on the SNMP agent.

The Firepower 1000 chassis supports SNMPv1, SNMPv2c and SNMPv3. Both SNMPv1 and SNMPv2c use a community-based form of security.

Enabling SNMP and Configuring SNMP Properties for Firepower 1000

Note This procedure only applies to the Firepower 1000.

Procedure

Step 1 Choose **Devices** > **Device Management**.

Step 2 Click **SNMP**.

Step 3 Complete the following fields:

Name	Description
Admin State check box	Whether SNMP is enabled or disabled. Enable this service only if your system includes integration with an SNMP server.
Port field	The port on which the Firepower chassis communicates with the SNMP host. You cannot change the default port.
Community field	The default SNMPv1 or v2 community name or SNMP v3 username and password that the Firepower chassis includes on any trap messages it sends to the SNMP host. Enter a valid community string for SNMPv1 and SNMPv2: • Alphanumeric string between 1 and 32 characters and special characters ! (exclamation), - (hyphen), ~ (tilde), && (double ampersand), [ ] (square brackets), ^ (carat), ' (single quote), " (double quotes), and < > (angle brackets). • Do not use @ (at sign), \ (backslash), ? (question mark) or an empty space. • The string can also be in ASCII characters ranging 0x21 to 0x7E inclusive, excluding HTML interjection vectors, namely single quote ('), double quotes ("), and angle brackets (< >). Enter a valid username and password for SNMPv3: • Username can be alphanumeric string and can include @ (at sign), \ (backslash), . (period), _ (underscore), and - (hyphen). • The password restrictions are same as the community string restrictions. Note that if the **Community** field is already set, the text to the right of the empty field reads **Set: Yes**. If the **Community** field is not yet populated with a value, the text to the right of the empty field reads **Set: No**.
System Admin Name field	The contact person responsible for the SNMP implementation. Enter a string of up to 255 characters, such as an email address or a name and telephone number.
Location field	The location of the host on which the SNMP agent (server) runs. Enter an alphanumeric string up to 510 characters.

Step 4 Click **Save**.

What to do next

Create SNMP traps and users.

Creating an SNMP Trap for Firepower 1000

Note This procedure only applies to the Firepower 1000.

Procedure

Step 1 Choose **Devices** > **Device Management**.

Step 2 Click **SNMP**.

Step 3 In the **SNMP Traps Configuration** area, click **Add**.

Step 4 In the **SNMP Trap Configuration** dialog box, complete the following fields:

Name	Description
Host Name field	The hostname or IP address of the SNMP host to which the Firepower chassis should send the trap.
Community field	The SNMP v1 or v2 community name or the SNMP v3 username the Firepower chassis includes when it sends the trap to the SNMP host. This must be the same as the community or username that is configured for the SNMP service. Enter an alphanumeric string between 1 and 32 characters. Do not use @ (at sign), \ (backslash), " (double quote), ? (question mark) or an empty space.
Port field	The port on which the Firepower chassis communicates with the SNMP host for the trap. Enter an integer between 1 and 65535.
Version field	The SNMP version and model used for the trap. This can be one of the following: • **V1** • **V2** • **V3**

Name	Description
Type field	If you select **V2** or **V3** for the version, the type of trap to send. This can be one of the following: • **Traps** • **Informs**
Privilege field	If you select **V3** for the version, the privilege associated with the trap. This can be one of the following: • **Auth**—Authentication but no encryption • **Noauth**—No authentication or encryption • **Priv**—Authentication and encryption

Step 5 Click **OK** to close the **SNMP Trap Configuration** dialog box.

Step 6 Click **Save**.

Creating an SNMP User for Firepower 1000

Note This procedure only applies to the Firepower 1000.

Procedure

Step 1 Choose **Devices** > **Device Management**.

Step 2 Click **SNMP**.

Step 3 In the **SNMP Users Configuration** area, click **Add**.

Step 4 In the **SNMP User Configuration** dialog box, complete the following fields:

Name	Description
Username field	The username assigned to the SNMP user. Enter up to 32 letters or numbers. The name must begin with a letter and you can also specify _ (underscore), . (period), @ (at sign), and - (hyphen).
Auth Algorithm Type field	The authorization type: **SHA**.

Name	Description
Use AES-128 checkbox	If checked, this user uses AES-128 encryption. **Note** SNMPv3 does not support DES. If you leave the AES-128 box unchecked, no privacy encryption will be done and any configured privacy password will have no effect.
Authentication Password field	The password for the user.
Confirm field	The password again for confirmation purposes.
Encryption Password field	The privacy password for the user.
Confirm field	The privacy password again for confirmation purposes.

Step 5 Click **OK** to close the **SNMP User Configuration** dialog box.

Step 6 Click **Save**.