



Configuring SNMP

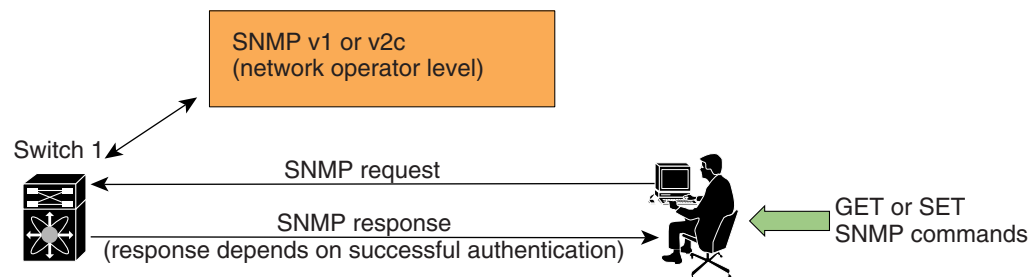
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SNMP Security

SNMP is an application layer protocol that facilitates the exchange of management information between network devices. In the Cisco MDS 9020 Fabric Switch, two SNMP versions are available: SNMPv1 and SNMPv2c. (See [Figure 10-1](#).)

Figure 10-1 SNMP Security



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Adding or Deleting Communities

You can configure read-only or read-write access for SNMP users. To create an SNMPv1 or SNMPv2c community, perform this task:

	Command	Purpose
Step 1	switch# config t	Enters configuration mode.
Step 2	switch(config)# snmp-server community snmp_Community ro	Adds read-only access for the specified SNMP community.
	switch(config)# snmp-server community snmp_Community rw	Adds read-write access for the specified SNMP community.
	switch(config)# no snmp-server community snmp_Community	Deletes access for the specified SNMP community (default).

Assigning SNMP Switch Contact Information

The switch contact information is limited to 32 characters (without spaces).

Use the **snmp-server** command to set the contact information and the switch location. Use the **no** form of the command to remove the system contact information.

To configure contact information, perform this task:

	Command	Purpose
Step 1	switch# config t	Enters configuration mode.
Step 2	switch(config)# snmp-server contact NewUser	Assigns the contact name for the switch.
	switch(config)# no snmp-server contact NewUser	Deletes the contact name for the switch.
Step 3	switch(config)# snmp-server location SanJose	Assigns the switch location.
	switch(config)# no snmp-server location SanJose	Deletes the switch location.

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Configuring SNMP Notifications

You can configure the Cisco MDS 9020 Fabric Switch using the CLI to send notifications to SNMP managers when changes occur that affect the switch configuration or status. You can send these notifications as traps.

To configure notifications, perform this task:

	Command	Purpose
Step 1	switch# config t	Enters configuration mode.
Step 2	switch(config)# snmp-server host 172.16.187.101 traps version 2c private udp-port 1163	Configures the specified host to receive SNMP version 2c trap notifications on a private port number 1163.
	switch(config)# no snmp-server host 172.18.2.247 version 2c public udp-port 2162	Prevents the specified host to receive SNMP version 2c inform notifications on a private port number 2162.
	switch(config)# snmp-server host 10.1.1.1 fsdf	Configures the specified host to receive SNMP inform notifications with the default noauth option on the default UDP port (162).

Enabling SNMP Notifications

Notifications (traps) are system alerts that the switch generates when selected changes occur that affect the switch configuration or status. By default, no notification is defined or issued.

To enable notifications, perform this task:

	Command	Purpose
Step 1	switch# config t	Enters configuration mode.
Step 2	switch(config)# snmp-server enable traps	Enables SNMP traps.
	switch(config)# no snmp-server enable traps	Disables SNMP traps.

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Displaying SNMP Security Information

Use the `show snmp` commands to display configured SNMP information. (See [Example 10-1](#) to [10-3](#).)

Example 10-1 Displays SNMP User Details

```
switch# show snmp user
Host                               Port Version  Type  SecName
-----
10.0.0.254                         162  2c      trap  public
```

Example 10-2 Displays SNMP Community Information

```
switch# show snmp community
Community Group/Access
-----
public    network-operator
```

Example 10-3 Displays SNMP Host Information

```
switch# show snmp host
Host                               Port Version  Level  Type  SecName
-----
172.16.126.34                     2162 v2c      noauth trap  public
172.16.75.106                     2162 v2c      noauth trap  public
...
172.31.58.97                       2162 v2c      auth   trap  public
...
```

The `show snmp` command displays counter information for SNMP contact, location, and packet settings. This command provides information that is used entirely by the Cisco MDS 9000 Family Fabric Manager (refer to the *Cisco MDS 9000 Family Fabric Manager Configuration Guide*). (See [Example 10-4](#).)

Example 10-4 Displays SNMP

```
switch# show snmp
sys contact: <sysContact undefined>

sys location: <sysLocation undefined>

Community Group/Access
-----
public    network-operator
```