

# SNMP Commands

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This chapter describes the commands used to configure System Network Management Protocol (SNMP) parameters, such as management station and traps.

## reset snmp traphost

To delete one or all of the configured trap hosts, use the **reset snmp traphost** command.

**REset SNmp TRaphost** [*ipaddress* | **ALl**]

### Syntax Description

*ipaddress* IP address of the configured trap host in four-part dotted decimal notation.

**ALl** Deletes all configured trap hosts.

### Default

None

### Command Mode

System mode

### Example

The following example deletes one traphost:

```
Host> reset snmp traphost 150.150.50.25
```

### Related Command

**set snmp traphost**

## set snmp contact

To enter the username of the contact person who has the management information of this node, use the **set snmp contact** command.

**SEt SNmp COntact** *contactname*

### Syntax Description

*contactname* User name of a contact person who has all the management information. Must be between 1 and 64 characters. If it includes spaces, the entire string of characters must be enclosed in quotation marks.

### Default

None

### Command Mode

System mode

### Usage Guidelines

To delete the contact name, enter the command without the contact name.

### Examples

The following example configures a contact name to be associated with SNMP information:

```
Host> set snmp contact "Thomas Doe"
```

The following example deletes the contact name:

```
Host> set snmp contact
```

Related Commands

**set snmp location**

**set snmp trap**

**set snmp trap host**

**show snmp**

## set snmp location

To enter the physical location of the router, use the **set snmp location** command.

**SEt SNmp LOcation** *location*

### Syntax Description

*location* Location name, must be between 1 and 64 characters. If the name includes spaces, the entire string of characters must be enclosed in quotation marks.

### Default

None

### Command Mode

System mode

### Usage Guidelines

To delete the location name, enter the command without the location-name argument.

### Examples

The following example configures the location name San Jose to be associated with the router:

```
Host> set snmp location "San Jose"
```

The following example deletes the location name:

```
Host> set snmp location
```

Related Commands

**set snmp contact**  
**set snmp trap**  
**set snmp trap host**  
**show snmp**

## set snmp trap

To specify when traps are sent to the network management station, use the **set snmp trap** command.

```
SEt SNmp TRap [COldstart = ON | OFF] [LIInkup = ON | OFF] [LIInkdown ON  
| OFF] [AUthenticationfail ON | OFF]
```

### Syntax Description

<b>ON</b>	Traps are sent when any of the listed conditions occur: coldstart, linkup, linkdown, or authentication failure.
<b>OFF</b>	Traps are not sent when any of the listed conditions occur: coldstart, linkup, linkdown, or authentication failure.
<b>COldstart</b>	Coldstart trap is sent when the router is powered on.
<b>LIInkup</b>	A new connection is established. Does not apply to individual B channel establishment.
<b>LIInkdown</b>	A connection is closed. Does not apply to individual B channels closing.
<b>AUthenticationfail</b>	Authentication fails.

### Default

Traps are never sent (all **off**).

### Command Mode

System mode

### Usage Guidelines

The **set snmp trap** command configures when traps are sent to the network management system.

The **set active** command causes the linkup trap to be sent, indicating an active profile is available. If there is traffic for this profile, a call is made, the connection is established, and the traffic is sent.

A linkdown trap is sent when a WAN profile is set to inactive. Setting a WAN profile inactive makes it unavailable when there is traffic to be sent to this profile. If a connection is established for this profile, setting it to inactive also causes the connection to be torn down.

Bringing the channels up and down will not trigger the traps. Setting a profile to active or inactive causes the traps to be sent. You can set up your PC as a trap host, set up the LAN IP address to be in the same subnet as the PC, and turn IP routing **on**. If you enter the **set active** command for any WAN profile, you will see a link up trap sent to your PC on the LAN connection. If you enter the **set inactive** command for the WAN profile, you will see a link-down trap sent to your PC.

Where the trap is sent depends on where the trap host you specify resides. If the trap host resides on the LAN side, it is sent to the LAN. If the trap host resides on the WAN side, it is sent to the WAN profile through which the trap host can be reached.

For coldstart, the trap is generated when the router is powered up. During the power up, the router sets up the LAN profile. If the linkup trap is enabled and a trap host exists, a linkup trap for the LAN profile is sent to this trap host. During power up, the router also reads all user (WAN) profiles that existed before it was powered down. As it reads the user profile, it creates the corresponding user profile, and if the profile has attribute of "power up active," the router sets the profile to active, and the linkup trap for this profile is sent to the trap host. During the power up, link up traps are then sent to the trap host.

The **set active** command sets up the user profile so that it is available for the router to make the call and establish connection if the traffic demands it. The coldstart trap will be sent only when a profile is issued a set active command, be it by the router or by the user. This trap has nothing to do with the B channel being activated or a call being made to initiate a connection.

If **demand** is **on** (auto on), the packet can trigger a call to be made based on the call number in this profile, and when a connection is established, the queued trap packet will be forwarded.

If you turn **on** log connection, where the connection is that of the WAN user profile, you should see an SNMP linkup trap packet received when you enter the **set active** command for this profile.

If the trap host resides on the same connection as the profile that has been set inactive, it will not see this trap. If the trap host resides on the LAN connection or in another WAN profile, the linkdown trap will be sent to these profiles, and the trap host will see it.

The LAN profile, because it is permanently active, does not accept the set active or set inactive command. So you do not see the linkdown trap at all. Unplugging the LAN cable does not cause any linkdown trap to be sent.

If you have the Novell LAN Analyzer software or connect a sniffer to the router, you can capture all packets from the router, and it will tell you if SNMP linkup/linkdown or other traps have been sent by the router.

## Example

The following example configures the router to send traps when the router is rebooted and when authentication fails:

```
Host> set snmp trap coldstart on authenticationfail on
```

## Related Commands

**set snmp contact**  
**set snmp trap host**  
**show snmp**

## set snmp traphost

To configure the router with the IP address of a network management station that receives SNMP traps, use the **set snmp traphost** command.

**SEt SNmp TRAPHOst** *ipaddress*

### Syntax Description

*ipaddress* IP address of a network management station that receives the SNMP traps in four-part dotted decimal notation. A maximum of eight IP addresses can be entered with this command.

### Default

The default IP address is 0.0.0.0.

### Command Mode

System mode

### Example

The following example configures the router with the IP address of a network management station that will receive traps from the router:

```
Host> set snmp traphost 150.150.50.25
```

### Related Commands

**reset snmp traphost**  
**set snmp contact**  
**set snmp trap**  
**show snmp**

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## show snmp

To display SNMP configuration for the router, use the **show snmp** command.

### SHow SNmp

#### Command Mode

System or profile mode

#### Example

The following example shows output from the **show snmp** command:

```
Host> show snmp

SNMP
Contact "Thomas Doe"
Location "Aptos"
Trap COLDSTART OFF
Trap LINKDOWN OFF
Trap LINKUP OFF
Trap AUTHENTICATIONFAIL ON
Trap Host 150.150.50.25
Trap Host 150.150.30.35
```

Table 10-1 describes the fields shown in the display.

**Table 10-1 Show SNMP Field Descriptions**

Field	Description
Contact	Router contact name.
Location	Router location.
Coldstart	Indicates whether a trap is sent when the unit is rebooted. Can be On or Off.
Linkdown	Indicates whether a trap is sent when a connection closes. Can be On or Off.
Linkup	Indicates whether a trap is sent when a connection opens. Can be On or Off.

**Table 10-1 Show SNMP Field Descriptions (continued)**

<b>Field</b>	<b>Description</b>
Authentication fail	Indicates whether a trap is sent when authentication fails. Can be On or Off.
Trap Host	IP address(es) of management stations to which traps are sent.