Monitoring the Network with SNMP

This chapter explains monitoring the Catalyst 3000 from a Network Management System (NMS) using the CiscoView or any application that supports Simple Network Management Protocol (SNMP).

The following topics are covered in this chapter:

- SNMP Set-up
- IP Configuration
- SNMP Configuration

SNMP Set-up

Follow these steps to use in-band management:

Step 1 Attach the Catalyst 3000 to the console and start a console session as described in Chapter 6, "Connecting a Network Management Console."

Step 2 Complete the IP Configuration menu.

Step 3 Complete the SNMP Configuration menu and following sub-menus:

Community String menu.

Trap Receiver menu.

The following sections describe the SNMP set-up menus.

IP Configuration

The IP Configuration menu sets the IP address, gateway address, subnet mask, and IP state.
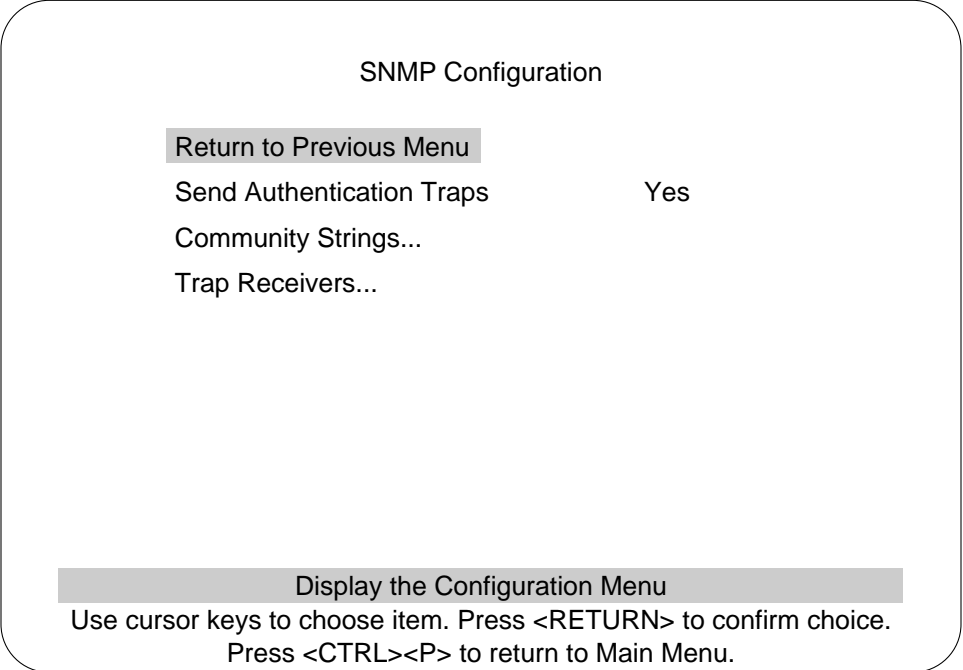
The *IP Address and Default Gateway* must be in the same subnet address class—that is, Class A, Class B, or Class C. The system prevents you from entering values from different classes. If you do inadvertently enter an incorrect value, enter 0.0.0.0 in every field, then re-enter the correct values.

Refer to Chapter 7, "Console Configuration," for a complete description on how to configure the IP Configuration menu.

SNMP Configuration

Use the SNMP Configuration Menu to configure specific attributes related to SNMP.

SNMP Configuration Screen

```
                    SNMP Configuration

        Return to Previous Menu

        Send Authentication Traps              Yes

        Community Strings...

        Trap Receivers...




                 Display the Configuration Menu
        Use cursor keys to choose item. Press <RETURN> to confirm choice.
                Press <CTRL><P> to return to Main Menu.
```

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Send Authentication Traps

Indicates whether SNMP should issue an authentication trap to Trap Receivers whenever an unauthorized request is detected.

Default: Yes

Community String Menu

Changes the community string table. The community string is the name associated with the Catalyst 3000 and a set of SNMP Managers. Entries in the table are saved across resets and power cycles.

Trap Receiver Menu

Displays table of managers to which traps are sent. Entries in the table are saved across resets and power cycles.

Community String Menu

Use the Community String menu to configure the community string for the Catalyst 3000. The community string is the name associated with the Catalyst 3000 and a set of SNMP managers allowed to manage it with the specified privilege level.

```
                        Community Strings


           Index          Community Name          Mode
             1                public                Read
             2                private            Read/Write






       Return Add Entry    Delete Entry    Change Entry   Clear Table
                      Return to previous menu
       Use cursor keys to choose item. Press <RETURN> to confirm choice.
                 Press <CTRL><P> to return to Main Menu.
```

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Note   Text within the community string is Upper/Lower case sensitive.

Entries are displayed in the order in which they are encountered. There is a limit of 10 community strings.

Community String Table entries are saved when you select Return to Previous Menu. Entries are preserved across resets and power cycles.

Index

Sequential number of entries in the table.

Community Name

The specified privilege level of the assigned community.

Mode

Specific access privileges of the community.

Add Entry

Adds community string.

Delete Entry

Deletes community string.

Change Entry

Modifies community string and/or access mode.

Clear Table

Deletes all community strings.

Trap Receiver Menu

Trap Receiver Tables tell the Catalyst 3000 where to send traps. The table contains the IP address associated with an SNMP manager.

```
                              Trap Receivers

                  IP Address      Community Name        VLAN

                1 192.9.200.1         public           default

                2 192.9.200.2         private


   Return  More  Add Entry    Delete Entry   Change Entry  Clear Table  Zoom
                          Return to previous menu
          Use cursor keys to select action. Press <RETURN> to confirm choice.
                    Press <CTRL><P> to return to Main Menu.
```

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The Trap Receiver Table contains a maximum of 20 entries. It is displayed again each time the table changes.

Trap Receiver Table entries are saved when you select Return to Previous Menu. Entries are preserved across resets and power cycles.

IP Address

The IP address associated with an SNMP manager.

Community String

The specified privilege level.

VLAN

Specifies a list of VLANs in which the trap is sent out.

More

To view next page of table.

Add Entry

Adds a new entry to the trap receiver table.

Delete Entry

Deletes an entry from the trap receiver table.

Change Entry

Modifies an entry in the trap receiver table.

Clear Table

Deletes all table entries.

Zoom

To display a Trap receiver entry in detail.