Configuring the Cisco 90 Series DSL Management Agent

The DSL Management Agent provides a command-line interface (CLI) to configure the agent, which is described in this chapter.

Using the CLI to Configure the DSL Management Agent

The agent CLI provides commands to configure the Cisco 90 Series DSL Management Agent. You need to first create a terminal connection to the agent so you can log into the agent CLI. For information on setting up a terminal session, refer to "Setting Up a Terminal Session to the DSL Management Agent" in the chapter "Installing the Cisco 90 Series DSL Management Agent."

After you log into the agent CLI, you can view its available commands with brief descriptions by entering **?** or **help**. The agent CLI's commands are described in the next section "Commands to Configure the Cisco 90 Series DSL Management Agent."

Note   You can use the minimum number of characters necessary to uniquely identify any agent CLI command. For example, to upgrade the NT agent software from floppy, you can just enter **u f** instead of **upgrade floppy**, or **rel** instead of **reload** to reload the agent software.

Commands to Configure the Cisco 90 Series DSL Management Agent

Enter **help** or **?** to display the following commands and descriptions:

```
add            Add community string or SNMP Manager
delete         Delete community string or SNMP Manager
help           Show available commands or help on individual commands
logout         Logout from current CLI session
passwd         Change agent's CLI password
reload         Reboot agent to cause changes to go into effect
revert         Revert to previous software release for DSL Management Agent
set            Set agent's IP address, subnet mask, or default gateway
show           Show agent's current configuration
upgrade        Upgrade software for DSL Management Agent
```

Examples of how to use the agent CLI commands are provided in different sections of this guide. The information in this chapter covers how to use the agent CLI to configure the agent. For information on using the agent CLI to upgrade the agent software, refer to the appendix, "Upgrading DSL Management Agent Software."

Checking the Current DSL Management Agent Configuration

You can check the DSL Management Agent's current configuration; for example, the agent's current IP address and subnet mask, the IP addresses of SNMP managers to receive traps, and what SNMP community strings are configured.

To check the agent's configuration, enter **show** at the <AgentCLI> prompt as follows:

```
<AgentCLI> show

90-Series DSL Management Agent V2.0.0

TCP/IP Configuration:
IP address is 172.23.71.99
Subnet mask is 255.255.255.0

SNMP Manager(s):
at IP address 172.23.71.98
at IP address 172.23.71.97

Community String(s):
'public' for read-only access
'cisco' for read-write access
```

You can change the agent's IP address, subnet mask, community strings and SNMP managers by using the procedures in the following sections.

Configuring the IP Address

The first step is to configure the agent with an IP address and a subnet mask so that the SNMP agent can communicate on the LAN using TCP/IP.

If the SNMP manager application is not located on the same Ethernet subnet as the agent, you need to enter the IP address for the router or gateway that connects the two networks.

Entering the IP Address

Perform the following steps to configure agent's IP address:

Step 1   At the <AgentCLI> prompt, set the IP address for the Cisco 90 Series DSL Management Agent; for example:

```
<AgentCLI> set ipaddr 172.23.71.23
```

Your system administrator will provide the IP address for the agent; enter it in dotted decimal format (172.23.71.23).

Step 2   Enter the subnet mask as 255.255.255.0 (or the one provided by your system administrator), for example:

```
<AgentCLI> set subnet 255.255.255.0
```

Step 3 Enter the IP address for the default router (or gateway) you are connected to on your Ethernet LAN. Use the following command syntax:

```
<AgentCLI> set gateway 123.45.67.89
```

This is required if the agent and all SNMP managers are not on the same LAN.

If the agent and all SNMP managers are on the same LAN, specify:

```
<AgentCLI> set gateway none
```

Step 4 Reboot the Cisco 90 Series DSL Management Agent by entering:

```
<AgentCLI> reload
```

If this does not reboot the agent, press and release the **Reset** switch on the front panel.

Note Any time you make changes to the Cisco 90 Series DSL Management Agent configuration, issue the **reload** command in the agent CLI to put the changes into effect. (You can also press the **Reset** switch on the front panel.)

Testing the Configuration

After entering the IP address and subnet mask for your system, test the configuration to verify that the Cisco 90 Series DSL Management Agent is able to transmit and receive over the TCP/IP connection, and that other hosts on the network can communicate with the agent.

Test the IP configuration by performing these steps:

Step 1 Go to another host and issue a **ping** command from that host to the Cisco 90 Series DSL Management Agent's IP address.

Step 2 If the result indicates that the Cisco 90 Series DSL Management Agent is alive, the agent is correctly receiving traffic from the network using TCP/IP.

Step 3 If the SNMP manager is not located on the same LAN as the agent, repeat Step 1 through Step 2 using the SNMP manager. This will test the default gateway.

Configuring Access Permissions and SNMP Managers

Use the information in this section to specify community strings, which set the access permissions and maintain security, and SNMP managers to receive traps from the Cisco 90 Series DSL management agent.

Setting Community Strings

SNMP community strings are similar to passwords. They determine the level of access an SNMP manager has to the 90 Series MIB maintained by the agent. To set community strings, use the **add** command in the agent CLI.

Step 1 To add a community string with read-only access:

```
<AgentCLI> add community ReadOnly public
```

This line adds the read-only community string "public." Change the string "public" to the community string you want to to use for read-only access.

Step 2 To add a community string with read-write access:

```
<AgentCLI> add community ReadWrite cisco
```

Note The default community string values are "public" (for read-only access) and "cisco" (for read-write access); you can change these to anything you want.

Setting SNMP Managers

Use the **add** command in the agent CLI to specify an SNMP manager to receive traps from the Cisco 90 series DSL management agent. Enter the appropriate IP address for your SNMP manager. Your system administrator will provide you with the correct IP address.

Step 1 To add an SNMP manager to receive traps:

```
<AgentCLI> add manager IPaddress
```

Step 2 To specify additional SNMP managers, specify a different IP address for each SNMP manager:

```
<AgentCLI> add manager IPaddress of second SNMP manager
<AgentCLI> add manager IPaddress of third SNMP manager
```

Deleting Community Strings or SNMP Managers

To delete a community string or SNMP manager, use the **delete** command. For example, to delete the community string "public," use:

```
<AgentCLI> delete community ReadOnly public
```

To delete an SNMP manager:

```
<AgentCLI> delete manager IPaddress
```

Testing the Configuration

After entering the community strings and SNMP managers to receive traps for your system, test the configuration to verify that the Cisco 90 Series DSL Management Agent is able to communicate using the configured community strings:

Step 1 Compile the Cisco 90 Series MIB on an SNMP manager, if it is not already capable of managing the Cisco 90i series.

Step 2 Configure the SNMP manager to recognize and communicate with the IP address of the Cisco 90 Series DSL Management Agent.

Step 3 Set the SNMP manager to use the community strings defined in the earlier section "Setting Community Strings." Set the SNMP type to SNMPv1, if applicable.

Step 4 Using the SNMP manager, issue a **get** command on the frxSys table. This displays information about the Cisco 90 Series DSL Management Agent, provided the read-only community string configuration was successful.

Step 5 Test the read-write community strings by issuing a **set** command on the frxSysName object. This sets the name for the agent, provided the community string configuration was successful.

Step 6   As a final test of the WAN link to the Frame Relay switch, perform a **get** command on the frxAgtChStatus object. This will return the status of the Frame Relay Annex D signaling channel and verify that the link is up. The value returned is 1 if the link is active, or 2 if it is inactive.

Setting System-Wide Parameters

The last step in installing the SNMP agent is to set the elements in the frxSys group and the frxDefault group. The frxSys group contains such items as the system name and the real-time clock. The frxDefault group contains the initial conditions that you want to set the channel unit to when the DOWNLOAD CONFIG pushbutton is depressed after a new channel unit is installed. (Refer to the *Cisco 90i IDSL Channel Unit Quick Start Guide* for more information.) You should set the frxDefault group to the configuration you expect will be used by the largest number of circuits. If the frxDefault group is changed at a later date, cards installed before the change will not be affected. You are now ready to install your first D4 channel bank.

Upgrading the DSL Management Agent Software

The Cisco 90 Series DSL Management Agent includes a PCMCIA Flash card which contains the agent software. Periodically, Cisco Systems may provide agent software upgrade files (sometimes referred to as an "upgrade archive") on Cisco Connection Online (CCO), or ship you a floppy diskette that fixes existing bugs, provides a special feature, or improves performance.

When this happens, you will need to upgrade the agent software. There are two ways you can upgrade:

- From a diskette inserted into the agent's floppy drive

- From your local TFTP server

For information on how to obtain the upgrade archive, download the upgrade archive from CCO to diskette or a local TFTP server, and upgrade the agent software, refer to the appendix "Upgrading DSL Management Agent Software."