Troubleshooting the Cisco 200

This appendix provides general guidelines for troubleshooting the Cisco 200. It also contains a troubleshooting worksheet that lists the information you should have available when seeking technical assistance. This appendix contains the following sections:

- Service and Support
- Troubleshooting Checklist
- Blank Screen and Other Hardware Problems
- Cannot Connect to Router
- Troubleshooting the Connecting Router Configuration
- Using NETX.EXE with Windows or Windows for Workgroups
- Installation Summaries for the Various Platforms
- Troubleshooting Worksheet

Service and Support

For information about obtaining technical assistance with your Cisco 200 product, refer to the *Cisco Information Packet,* which shipped with your product.

Troubleshooting Checklist

The following list of guidelines will help ensure that the Cisco 200 will operate properly:

- When you run INSTALL or SETUP, do not enter any non-numeric characters in the telephone number entry display.

- If you use the CONNECT.BAT file, enter the name of the connecting router at the end of the line. The router name is case-sensitive. For example, if the router name is "HEADQUARTERS" in all capital letters, you must enter:

  CONNECT *HEADQUARTERS*

  not:

  CONNECT *Headquarters*

- If you manually load the Cisco 200, the name of the connecting router must appear at the end of the ISDN200 statement. The router name is case-sensitive. For example:

  ISDN200 *HEADQUARTERS*

  not:

  ISDN200 *Headquarters*

- The node MAC address must be unique on the network. Check with your network administrator.

- Select the correct ISDN protocol (for example, NI1).

- The ISDN Adapter must be firmly seated and properly connected, and the jumpers must be set correctly.

- Use a properly configured NT1 if required by your ISDN provider.

- Do not use a terminal adapter; the ISDN Adapter has a built-in terminal adapter.

- Select the proper ISDN line speed (56 kbps or 64 kbps). Verify that the line speed is the same as the line speed of the connecting router.

- When configuring the connecting router, if you are using a 56 kbps ISDN line, include the SERVICE=DATA56 statement in your router's configuration file.

- If you are using CHAP authentication, make sure you are using the correct password. Remember, passwords are case-sensitive.

- Enter the correct SPID, directory name, or both, if required for your ISDN protocol.

- All phone numbers must be correct.

- Ensure that the network protocols you want to use are enabled. Check the ISDN200.CFG file to make sure there is a semicolon (;) in the first position of the line for all the protocols you want to use.

- Ensure that a dialer map is present and configured properly on the connecting router.

Blank Screen and Other Hardware Problems

If the screen is blank, or if your workstation seems to be executing commands slowly, the Cisco 200 software with VLM or NETX loaded might be trying to determine whether the command you entered is a NetWare or a DOS command. Therefore, it will bring up a suspended ISDN connection before executing a command. Be sure you unload VLM or NETX when you finish using the services of the remote file server.

Cannot Connect to Router

Ensure that there are no duplicate network addresses. Addresses are usually assigned by the network administrator.

Troubleshooting the Connecting Router Configuration

The following example illustrates a connecting router configuration for a Cisco 2503 router using PPP multilink with PPP callback and the DSS1 protocol. Have your system administrator use this example if you are having problems connecting using your Cisco 200 and suspect a router configuration problem may be the cause. The lines in bold-face type relate to your installation and are explained in detail in the text following the example.

```
!
version 11.0
!
hostname HEADQUARTERS
!
username MyHomeOffice password Secret
ipx routing 0000.0c07.ad01
isdn switch-type basic-net3
isdn tei-negotiation first-call
!
interface Ethernet0
ip address 220.6.7.50 255.255.255.0
ipx network 50
!
interface BRI0
ip address 202.6.7.50 255.255.255.0
encapsulation ppp
ipx network 22
no ipx route-cache
ipx watchdog-spoof
dialer enable-timeout 2
dialer map ip 202.6.7.30 name MyHomeOffice class CallbackUsers 5551111
dialer map ipx 22.0004.5509.1234 name MyHomeOffice class CallbackUsers 5551111
dialer-group 1
isdn caller 5551111
no fair-queue
ppp callback accept
ppp multilink
ppp authentication chap
!
map-class dialer CallbackUsers
dialer callback-server username
!
router rip
network 202.6.7.0
network 210.6.7.0
network 220.6.7.0
!
dialer-list 1 list 100
```

- `hostname HEADQUARTERS`

    — "HEADQUARTERS" is the name of the connecting router.

- `username MyHomeOffice password Secret`

    — "MyHomeOffice" is the name for this Cisco 200.

    — "Secret" is the password for this Cisco 200. This password will be encrypted in the router configuration after the router configuration is saved.

- `dialer map ip 202.6.7.30 name MyHomeOffice class CallbackUsers 5551111`

    — "MyHomeOffice" is the name for this Cisco 200.

    — "5551111" is the telephone number of the Cisco 200.

- `dialer map ipx 22.0004.5509.1234 name MyHomeOffice class CallbackUsers 5551111`

    — "0004.5509.1234" is the node MAC address.

    — "MyHomeOffice" is the name for this Cisco 200.

    — "5551111" is the telephone number of the Cisco 200.

Using NETX.EXE with Windows or Windows for Workgroups

If you are using NETX.EXE with Windows or Windows for Workgroups, you need the following files:

- LSL.COM (supplied with Cisco 200 software and installed into the Cisco 200 directory)
- IPXODI.COM
- NETX.EXE

These files should be provided by your system administrator.

Installation Summaries for the Various Platforms

Timesaver   This section presents a quick overview of the steps to install the Cisco 200 software for use with the various operating systems and NetWare platforms.

DOS and NetWare ODI Drivers (NETX)

Step 1   Install the Cisco 200 software.

Step 2   Copy the LSL.COM, IPXODI.COM, and NETX.EXE files to the directory in which you installed the Cisco 200 software.

DOS and NetWare VLM Drivers

Step 1   Install the NetWare Client software version 1.2 or later in the designated directory.

Step 2   Rename NET.CFG to NET.OLD.

Step 3   Install the Cisco 200 software in the same directory in which you installed the NetWare Client software.

Windows and NetWare ODI Drivers (NETX)

Step 1   Install the Cisco 200 software in a separate directory.

Step 2   Copy the LSL.COM, IPXODI.COM, and NETX.EXE files to the same directory in which you installed the Cisco 200 software.

Windows and NetWare VLM Drivers

Step 1   Install the NetWare Client software version 1.2 or later in a separate directory.

Step 2   Rename NET.CFG to NET.OLD.

Step 3   Install the Cisco 200 software into the same directory in which you installed the NetWare Client software.

Windows for Workgroups and NetWare ODI Drivers (NETX)

Step 1   Install the Cisco 200 software in a separate directory.

Step 2   Install or copy the LSL.COM, IPXODI.COM, and NETX.EXE files to the same directory in which you installed the Cisco 200 software.

Windows for Workgroups and NetWare VLM Drivers

Step 1   Install the NetWare Client software version 1.2 or later in a separate directory.

Step 2   Rename NET.CFG to NET.OLD.

Step 3   Install the Cisco 200 software in the same directory in which you installed the NetWare Client software.

Troubleshooting Worksheet

Before you request technical assistance, complete the following Troubleshooting Worksheet. Support personnel will ask you to provide this information when you first contact them, and may ask you to fax this information. Please print clearly.

Table C-1   Troubleshooting Worksheet for the Cisco 200

Company Data
Company name
Contact
Phone, fax, or Internet address
PC
Manufacturer/model
Type (386, etc.)/speed (MHz)
Total amount of memory
Operating system and version (DOS 6.2, Windows 3.1, etc.)
ISDN Adapter
I/O port address, IRQ
Serial number
Connecting Router(s)
Model
Software version
NT1 (North America)
Manufacturer/model
Miscellaneous
Network software type and version

Messages

Are there any messages appearing on the console?	Yes No

If so, what is the exact wording of the message(s)?

Network Diagram

On a separate sheet of paper, draw a diagram showing the configuration of your Cisco 200 network. Include the following:

- Network addresses

- Telephone numbers

- Contents (preferably printouts) of the CONFIG.SYS, AUTOEXEC.BAT, ISDN200.CFG, and NET.CFG files, and any files referred to by a CALL statement.

Troubleshooting Worksheet