APPENDIX B

Troubleshoot IPeXchange Clients

Once the IPeXchange gateway is running and the IPeXchange client is installed, you can run WinSock-based applications from the IPeXchange client. If problems occur, use this appendix to troubleshoot the problem. If an IPeXchange error message appears, refer to the appendix "Error Messages."

The IPeXchange client and the gateway are not communicating.

Follow these steps.

Step 1 Check that the client is receiving SAP messages from gateways.

Open the Cisco IPeXchange Internet Gateway window and pull down the Gateways menu. The menu should display names of IPeXchange gateways. If one or more gateways are missing, check that the IPX configuration at the IPeXchange client and gateway use the same frame type, as described in the chapter "Configure the IPeXchange Client Software."

Step 2 Ensure that the client has current versions of IPX components.

The chapter "Configure the IPeXchange Client Software" lists versions of IPX components that IPeXchange client software requires. If you did not check IPX component versions at installation, do it now.

Step 3 Make sure that the configuration files are correct.

The Setup program modifies WIN.INI and SYSTEM.INI files on the IPeXchange client. Refer to the section "Run the Setup Program" in the chapter "Configure the IPeXchange Client Software" and make sure that all changes described there have been made correctly.

Step 4 If the client is running Windows for Workgroups, make sure that the frame type specified in NET.CFG matches the frame type specified in PROTOCOL.INI.

On Windows for Workgroups systems, problems often occur when NET.CFG and PROTOCOL.INI specify different frame types. If you did not check frame types at installation, refer to the section "Requirements for Installation" in the chapter "Configure the IPeXchange Client Software" and do so now.

The IPeXchange client is unable to connect to the IPeXchange gateway. The IPeXchange Client window appears, but it does not show that the client is connected.

Several problems can prevent the client from connecting. Follow these steps to troubleshoot the problem.

Procedure 1

Step 1 In the IPeXchange window, look at any items in the Gateways pull-down menu. If one or more gateways are listed, select Gateways multiple times to connect; otherwise, continue with Step 2.

Step 2 Make sure that an IPeXchange gateway is up and running.

Procedure 2

If you receive an IPeXchange Network Status dialog with the message "Attempting to connect with the Cisco IPeXchange Gateway" and that remains on your screen but does not go away, follow these instructions.

Check for a frame type mismatch between the gateway and the client.

- Windows 3.1 client

  When the Windows client is coming up, look for the frame type that IPXODI is binding to. You can also put a pause command in the file which is calling IPXODI (STARTNET.BAT or AUTOEXEC.BAT). If the frame type is not correct, correct the frame type in the NET.CFG file and explicitly bind the frame type. Following are some possible entries:

```
FRAME=ETHERNET_II
FRAME=ETHERNET_802.3
FRAME=ETHERNET_802.2
FRAME=ETHERNET_SNAP
FRAME=TOKEN-RING
```

- Windows for Workgroups

  In addition to following the instructions for the NET.CFG file in the previous bullet, look for a file called PROTOCOL.INI in the c:\WINDOWS directory.

  Open the PROTCOL.INI file, where NWLINK is configured. If there is no PROTCOL.INI file, create one in the Windows directory. Find the section labeled [NWLINK]. If there is no NWLINK section, create this section header. In the NWLINK section starting with FRAME=, make sure that it specifies the same frame type that you noted in NET.CFG (the format is slightly different). If there is no entry, add a FRAME= entry. Following are some sample entries for Windows for Workgroups clients:

  ```
  Protocol IPX 0 Ethernet_802.3
  Protocol IPX E0 Ehernet_802.2
  Protocol IPX 8137 Ethernet_II
  Protocol IPX 8137 Ethernet_SNAP
  Protocol IPX 0 Token-Ring
  ```

- Windows 95 client

  From Start, choose Settings, click Control Panel, then double-click Network and Installed Components. Select IPX/SPX-compatible Protocols, then click Properties and Frame Type. Select a value then click OK. Click Advanced, then select the appropriate driver:

  Microsoft Client for NetWare — Use IPX/SPX compatible protocol.
  Novell NetWare (Workstation shell 4.0 & above) — Use IPXODI protocol.
  Novell NetWare Client 32 — Use IPX 32-bit protocol for NetWare Client32.

  Check the frame type. If it is Auto, select the appropriate frame type for your network.

When browsing the World Wide Web, it takes several minutes before the pages are downloaded.

Stop the browser and start the IPeXchange client. If this takes a lot of time, that means it is looking for the gateway. Open the WIN.INI file and under the IPeXchange client header specify a gateway name for the preferred server entry as follows:

```
[IPeXchange Client]
Preferred Gateway = gateway-name
```

The client screen appears, then immediately disappears. You do not know the name of other gateways.

The preferred gateway is running out of user licenses. The easiest solution is to edit the WIN.INI file and give any name to the Preferred Gateway entry. Next time the client starts, the screen would not disappear; instead, the client would try to find the preferred gateway. Then select another preferred gateway from the Gateways menu of the IPeXchange Client window.