Appendix A

Network Operating System Configuration

CiscoRemote Plus supports remote access to both Novell NetWare and Microsoft Windows networking systems, including Windows for Workgroups, Windows 95, Windows NT, and LAN Manager. Some additional setup and configuration is required to install and configure CiscoRemote Plus for remote access to networks such as these. This appendix describes the additional requirements.

Microsoft Windows Network Support

Microsoft Windows networking permits a PC running Windows 3.1, Windows for Workgroups, or Windows 95 to access remote files and printers on LAN Manager, Windows for Workgroups, Windows 95, or Windows NT networks.

During installation of the CiscoRemote Plus software, you can install Microsoft Windows Networking Support. Select both the TCP/IP protocol and Microsoft Windows Networking Support, which installs the components of CiscoRemote Plus that permit it to work with these networks.

With these options selected, the Install program loads a virtual protocol driver version of the TCP/IP stack. Windows networking can then use a remote connection to access file and print servers on your company's network. If Windows networking is *not a*lready enabled when you install CiscoRemote Plus, you must use the Microsoft Network Setup program to add the CiscoRemote Plus PPP/SLIP driver and the TCP/IP stack to your Windows network configuration.

After your network support software is installed, you can connect to your company's network and have full access to your normal network resources.

Using Ghosted Network Drives

Windows for Workgroups supports *ghosted* network drives, that is, drives that appear to be constantly available but which are connected to only when they are accessed by an application.

Take the following steps to enable ghosted support:

Step 1 Select the **Network** Icon from the Control Panel.

Step 2 In the Network window, click on the **Startup** button and select the **Ghosting Connections** checkbox.

From now on, when you use the File Manager to attach network drives, you can set them to reconnect at startup. Until you connect to your company's network, these drives will not be available. After you connect to the network, accessing the drives or the data on them results in those drives becoming available.

About NetBIOS and the NBUTIL Utility

Microsoft Windows networking depends upon NetBIOS for communications between any networked devices. CiscoRemote Plus allows you to access NetBIOS-based resources over TCP/IP. The NetBIOS interface is also available for other NetBIOS applications, such as Lotus Notes, to use.

The NBUTIL utility allows you to create a name table that translates NetBIOS names to TCP/IP addresses. You can use this utility to create a table of NetBIOS to TCP/IP address correspondences that is used by your network to enable or provide faster access to NetBIOS resources. For a description of the NBUTIL utility and how to use it, see the chapter, "Using the NBUTIL Utility with CiscoRemote Plus."

Microsoft LAN Manager Support

If you are running Windows 3.1x, you can install support for Microsoft LAN Manager remote access. Select the TCP/IP stack and the Microsoft LAN Manager options during installation.

When LAN Manager Support is selected, the Install Program loads a real-mode TSR version of the TCP/IP stack. The TSR stack requires about 87 kilobytes of conventional memory.

The LAN Manager can then use the remote connection to access file and print servers on your company's network. If LAN Manager is not running when you install CiscoRemote Plus, you must cancel the CiscoRemote Plus installation and install LAN Manager to enable Microsoft Windows networking. Check with your network administrator for more information about installing LAN Manager.

Novell NetWare Support

If your company's LAN uses Novell NetWare, and you need to connect to the NetWare resources, install Novell NetWare remote access support on your PC. You can also select the TCP/IP stack support for Internet support and/or support for Microsoft Windows networking. When the NetWare support software is installed, you can use the **MAP** command to access your NetWare network resources from remote locations.

If you install the NetWare remote access support, and you already have NetWare installed for direct LAN access, your direct LAN connection is disabled to allow a remote connection. During installation, you are asked to confirm that you want to disable the LAN connection and use a remote connection. If you confirm this choice, the PPP/SLIP Connect access is installed as the Novell NetWare connection.

To make a remote connection to a NetWare network, you make a connection using Net Launcher as described in the chapter "Setting Up a Connection Using CiscoRemote Plus." When you have made that connection, you log in as usual and all of your normal network resources are available to your remote PC.

When you are ready to disconnect from the remote network, you must follow the reverse procedure:

Step 1 Log out from the Novell LAN.

Step 2 Disconnect from the remote service.

Caution Be sure to log out before you disconnect or the Novell virtual loadable module will experience errors.

If you do not have NetWare running when you install CiscoRemote Plus, selecting the Novell support option displays additional instructions on your screen. You can have CiscoRemote Plus install the NetWare 4.0 client (included); you can install your own version of NetWare before installing CiscoRemote Plus (if it is version 3.12 or later); or you can install your own version of NetWare with the assistance of CiscoRemote Plus (if your NetWare is earlier than 3.12).

You cannot have direct LAN access and remote access to NetWare servers at the same time. Refer to the next section, "Switching Between Local and Remote NetWare Operation," for information about switching between local network access and remote access.

Switching Between Local and Remote NetWare Operation

You cannot use Novell LAN and remote support simultaneously with the Novell ODI implementation. Modify the STARTNET.BAT file to switch between remote and LAN usage.

Following are examples of modified STARTNET.BAT files for both Windows 3.1 and Windows for Workgroups.

Windows 3.1

STARTNET.BAT for remote IPX support with remote IP support:

```
set nwlanguage=english
lh c:\nwclient\lsl.com
rem c:\nwclient\ne2000.com
c:\cisco\bin\ntsrem
lh c:\nwclient\ipxodi.com
c:\cisco\bin\vtcppror
c:\cisco\app\dialit NTS PPP @28.8
lh c:\nwclient\mlm.exe
```

STARTNET.BAT for local LAN connection and remote TCP/IP:

```
set nwlanguage=english
lh c:\nwclient\lsl.com
c:\nwclient\ne2000.com
c:\cisco\bin\ntsrem
lh c:\nwclient\ipxodi.com
```

```
c:\cisco\bin\vtcppror
c:\cisco\app\dialit NTS PPP @28.8
lh c:\nwclient\mlm.exe
```

Windows for Workgroups

Local IPX and remote IP:

```
set nwlanguage=english
lh c:\nwclient\lsl.com
c:\nwclient\ne2000.com
c:\cisco\bin\ntsrem
lh c:\nwclient\ipxodi.com
c:\cisco\bin\vtcppror
lh c:\nwclient\mlm.exe
```

Remote IPX and remote IP:

```
set nwlanguage=english
lh c:\nwclient\lsl.com
rem c:\nwclient\ne2000.com
c:\cisco\bin\ntsrem
lh c:\nwclient\ipxodi.com
c:\cisco\bin\vtcppror
lh c:\nwclient\mlm.exe
```