Planning for Installation

This chapter shows you how to prepare for installing Cisco TCP/IP Suite, and covers these topics:

- Introducing Cisco TCP/IP Suite 100
- Understanding System Requirements
- Understanding Network Driver Requirements
- Preparing for the Installation
- Preparing for a Network Installation (for Network Administrators Only)
- Creating Installation Diskettes for Systems Without CD-ROMs
- Upgrading from an Evaluation Copy

Introducing Cisco TCP/IP Suite 100

Cisco TCP/IP Suite 100 is a set of TCP/IP utilities and a TCP/IP stack. These utilities allow you to connect to and communicate with other computers on the Internet or your corporate intranet using standard TCP/IP protocols. When you install the suite, you can select the utilities you need, although some utilities require that you also install the Cisco TCP/IP stack.

Table 1-1 shows the utilities available with Cisco TCP/IP Suite 100, the Windows platforms supported, and whether the utility also requires that you install the Cisco TCP/IP stack. Because the Cisco TCP/IP stack is not available for Windows NT 4.0, you cannot install any utilities that require the stack on Windows NT.

Table 1-1   Cisco TCP/IP Components

Utility	Use	Windows Platform	Cisco Stack Required
Netscape Navigator	Browse the World Wide Web; send and receive email; read newsgroups.	3.x, 95, NT 4.0	No
Telnet	Log into multi-user host systems such as UNIX, VMS, MVS, VM, and AS/400.	3.x, 95, NT 4.0	No
Kerberos	Authenticate your identity when accessing Kerberos-protected systems.	3.x, 95, NT 4.0	No
FTP Client	Get files from FTP servers, or put them there.	3.x, 95, NT 4.0	No
FTP Server	Allow other users to connect to your machine using an FTP client, so you can share files with them.	3.x, 95	No
Net Tools	General TCP/IP utilities: Ping, Finger, Host Lookup, Whois, TraceRoute.	3.x, 95, NT 4.0	No
Dialer	Connect to a network over a serial line, such as a modem connection.	3.x, 95	Yes
Ping	Troubleshoot network connections.	3.x, 95	Yes
Monitor	Monitor the TCP/IP stack activity for troubleshooting purposes.	3.x, 95	Yes
TCPDump	Help Cisco service representatives troubleshoot advanced problems with your TCP/IP stack setup.	3.x, 95	Yes
SNMP Agent	Allow SNMP network management software monitor and maintain your workstation.	3.x, 95	Yes
NFS and Print Assistant	Mount NFS server drives and attach NFS printers.	95	Yes
NFS Assistant	Mount NFS server drives.	3.x	Yes
Print Assistant	Attach NFS printers.	3.x	Yes

Understanding System Requirements

The workstation on which you install Cisco TCP/IP Suite must meet the following requirements:

- A correctly installed copy of Windows 3.x, Windows for Workgroups 3.11, Windows 95, or Windows NT 4.0 Workstation or Server.

- The minimum processor and RAM recommended for your version of Windows. The minimum for Windows 3.x should be a 386SX machine with 4MB of memory. For Windows 95, we recommend at least a 486 machine with 8MB of memory. For Windows NT, you must use an x86 or Pentium machine: you cannot run Cisco TCP/IP Suite on an Alpha or PowerPC machine.

- Microsoft Windows-compatible network interface card installed.

- Physical connection to an Ethernet, Token-Ring, or FDDI network, or modem connection to a network (for SLIP or PPP).

- CD-ROM drive (diskettes can be produced from the CD-ROM).

- Hard drive with a minimum of 17MB of disk space available.

Understanding Network Driver Requirements

Cisco TCP/IP Suite supports NDIS 3.0, NDIS 2.0, and ODI drivers. The type you use depends on your interface card, version of Windows, and networking requirements.

For Windows 95 and Windows NT, the network drivers are handled when you install the network adapter for the network interface card. You do not select a driver as part of the Cisco TCP/IP Suite installation.

For Windows 3.x, you must choose a network driver during installation. You can choose NDIS 3.0 if you are running Windows for Workgroups 3.11. Otherwise, you must choose NDIS 2.0 or ODI.

We recommend that you install the network driver before beginning the installation.

Preparing for the Installation

Before you install Cisco TCP/IP Suite:

1 Gather System and Network Information.

2 Install and Test Network Interfaces.

3 Remove Other TCP/IP Stacks (if you are installing the Cisco TCP/IP Suite stack).

4 Verify Windows 3.1 and 3.11 Are Running in Enhanced Mode.

5 Locate Windows Installation Media (if you are installing on Windows 95 or Windows NT for LAN use).

The following sections describe each step in more detail.

Gather System and Network Information

The installation procedure asks you a few questions about your workstation and network. We recommend that you gather the information before beginning the installation.

You need this information, which you can get from your network administrator:

- IP address of your workstation, in dotted-decimal format; for example, 192.168.34.22. You do not need an IP address if your installation uses dynamic configuration (DHCP or BOOTP).

- Subnet mask for your network; for example, 255.255.255.0.

- For Windows 3.x, the path and name of network interface card driver files, if no network software is installed on your workstation. We recommend you install the network interface card and software before installing Cisco TCP/IP Suite.

- Default route IP address in dotted-decimal format. The default route IP address must be on the same subnet as your workstation. You do not need this address if your installation uses router discovery or RIP instead of a default route.

- Domain name server IP addresses, in dotted-decimal format, if your network uses DNS to resolve host names to IP addresses. If you do not use DNS, you must create a host table using the Configuration Utility, or only use IP addresses to communicate with other hosts.

- Host name of your workstation, for example, `daisy`.

- Local domain name for the network; for example, `yoyodyne.com`. This is used by DNS to resolve host names to IP addresses.

- Time zone (for Windows 3.1 or 3.11 systems); for example, US/PACIFIC (Pacific Standard Time). The installation program automatically corrects for daylight saving time (where applicable).

- License key for Cisco TCP/IP Suite, which is in the installation package.

Install and Test Network Interfaces

We recommend that you install the workstation's network interface card and test it with the diagnostics supplied with the card before installing Cisco TCP/IP Suite.

If you are running Windows 3.1 or 3.11, we also recommend that you install the NDIS or ODI driver and verify that it is running before installing Cisco TCP/IP Suite.

Verify that the hardware settings of the network interface card are configured and do not conflict with other boards in the workstation.

Remove Other TCP/IP Stacks

If your workstation already has a TCP/IP stack other than Microsoft's stack and you want to install the Cisco TCP/IP stack, you must first remove the other stack. If you need information on how to remove a stack, refer to that TCP/IP vendor's documentation.

If you install the Cisco TCP/IP stack, it automatically removes the Microsoft stack during installation.

Be sure to remove any configuration information pertaining to other stacks from the following files:

- *AUTOEXEC.BAT*
- *CONFIG.SYS*
- *SYSTEM.INI*
- *WIN.INI*, if applicable

Verify Windows 3.1 and 3.11 Are Running in Enhanced Mode

To verify that Windows 3.1 and 3.11 are running in enhanced mode, choose **About Program Manager** from the Program Manager Help menu. The About Program Manager dialog should display "386 Enhanced Mode" at the bottom of the dialog just above the Memory indicator.

Windows for Workgroups runs only in enhanced mode.

Locate Windows Installation Media

If you are installing on a Windows 95 or Windows NT workstation for LAN (local area network) use, locate your Windows 95 or Windows NT installation media because you might be required to insert it during the course of the installation. You will also need the installation media if you add network printers not previously configured on your workstation.

Preparing for a Network Installation (for Network Administrators Only)

If you are a network administrator, you can simplify the installation of Cisco TCP/IP Suite on the workstations on your network by setting up for a network installation. Then, you can tell your users where the product is and have them install from the server, or you can go from machine to machine and install it yourself, without carrying the installation media with you.

You can also customize the Cisco TCP/IP configuration files so that users already have much of what they need to configure done for them.

The following are important requirements for using network installation:

- You must have a multiple-user license key for Cisco TCP/IP Suite.

- When users install Cisco TCP/IP Suite over the network, they must be using Windows for Workgroups networking, the Microsoft stack, or NetWare. Other vendors' TCP/IP stacks must be removed before installing Cisco TCP/IP Suite.

Setting Up Cisco TCP/IP Suite to Install Over a Network

To initially set up Cisco TCP/IP Suite for a network installation:

Step 1   Copy the contents of the Cisco TCP/IP Suite distribution media to the network server, mirroring the directory structure on the media. If your users do not use one of the supported versions of Windows, you do not need to copy that portion of the installation media to your server. Apply proper permissions to the directory to prevent unauthorized files from being created in the directory and its subdirectories.

Step 2   Create an *MIS* subdirectory in the same directory as the *SETUP.EXE* files for each version of Windows. For example, if you copied the contents of the Cisco TCP/IP Suite installation media to the root directory of your network server, the *MIS* directories are:

- `\Multinet\Win31\MIS`

- `\Multinet\Win95\MIS`

- `\Multinet\WinNT\MIS`

Step 3   If you have not already done so, install Cisco TCP/IP Suite on your machine under each version of Windows you are supporting (or use a test machine) and use the Configuration Utility to customize the configuration for each platform. Add interface, routing, DNS, host table, NetBIOS over TCP/IP, LM hosts, and global parameters as appropriate for your network. When you are satisfied with the configuration, copy the *MULTINET.INI* file from the Windows installation directory to the MIS directory for the corresponding platform.

You can use NotePad to edit *MULTINET.INI* and remove information such as the workstation's host name. When users install Cisco TCP/IP Suite, the Configuration Wizard uses the information in this file when it prompts the user for the corresponding information. Therefore, you might want to remove any information that you definitely do not want users to use, which is normally the case with IP addresses and host names, which must be unique for each user.

Step 4   Optionally, customize the profiles for individual Cisco TCP/IP Suite applications.

Customizing the Application Profiles

Once you have set up the files on the network server, users can successfully install Cisco TCP/IP Suite from the network. However, you can further help users by customizing the profiles for the individual applications. This is especially helpful if your users will be using Dialer to make connections to your network over modems.

To customizes profiles and settings for the Cisco TCP/IP Suite applications, start each application and create and test the profiles or other settings. See the online help for each application for details on creating profiles for that application.

Table 1-2 describes the main files you can customize, where they are located if you used the default installation directory, and where you must place them on the network server for network installations:

Table 1-2   Cisco TCP/IP Suite Application Profiles

File Name	Use	Get Them From:	Put Them In:
*.tel	Profiles of hosts users will connect to using Telnet	\Multinet\Telprofs	\Multinet\MIS\Telprofs
*.kbd	Telnet Keyboard profiles	\Multinet\Telprofs	\Multinet\MIS\Telprofs
Hosts	Host table for use with the Cisco TCP/IP stack (not available on Windows NT)	\Multinet	\Multinet\MIS
Kerberos.cfg	Kerberos realm and ticket server configuration	\Multinet	\Multinet\MIS
Kerberos.rlm	Kerberos special realm mappings	\Multinet	\Multinet\MIS
Mndialer.ini	General Dialer settings and the Dialer Manual Connect configuration	\Multinet	\Multinet\MIS
Mndialer.mnd	Dialer profiles for automating serial connections	\Multinet	\Multinet\MIS
Mnftpcli.mnd	Profiles for hosts users will connect to using FTP Client	\Multinet	\Multinet\MIS

Table 1-2   Cisco TCP/IP Suite Application Profiles (Continued)

File Name	Use	Get Them From:	Put Them In:
Mnkerb.ini	General Kerberos application settings	\Multinet	\Multinet\MIS
Mnnet.ini	NFS settings	\Windows\System (The Windows installation directory.) For Windows 3.x systems, the file is in \Multinet.	\Multinet\MIS
Mnping.mnd	Profiles for hosts users will want to Ping (for example, to do rudimentary troubleshooting)	\Multinet	\Multinet\MIS
Socks.DAT	Identifies SOCKS servers, if you use them to allow connections outside your firewall. This is used by FTP Client and Telnet. See the online help for those applications for information on creating and using Socks.DAT	\Multinet	\Multinet\MIS

During a network installation:

1 The *MULTINET.INI* file is copied to the Windows installation directory.

2 The *MNNET.INI* file is copied to the *SYSTEM* subdirectory of the Windows installation directory (except for Windows 3.x systems, where it is copied to the Cisco TCP/IP Suite installation directory).

3 The Telnet profiles are copied to the *TELPROFS* subdirectory in the user's Cisco TCP/IP Suite installation directory.

4 All other files in the *MIS* directory are copied to the Cisco TCP/IP Suite installation directory.

Creating Installation Diskettes for Systems Without CD-ROMs

You can create installation diskettes from the CD-ROM by opening an MS-DOS prompt and running the **MKDISKS.BAT** program, which is in the *MULTINET\WIN95, MULTINET\WIN31*, and *MULTINET\WINNT* directories.

The MKDISKS program creates the disk images on the drive you select (which should be a hard drive), and then you copy each disk image to a separate diskette. MKDISKS creates the target directory if it does not exist, and names the diskette image directories DISK_*n*, where *n* is a number from 1 to the total number of diskettes in the distribution.

Run the program without options to show the help information. The command format is:

MKDISKS *source_directory destination_directory*

where *source_directory* is the directory on the CD-ROM that contains the version of Cisco TCP/IP Suite for which you want to create diskettes, and *destination_directory* is the directory where you want to create the diskette images.

For example, to create diskette images for the Windows 95 version of the product on your C: drive in the \MN_KIT\WIN95 directory (when your CD-ROM is the D: drive), enter:

```
MKDISKS D:\MULTINET\WIN95 C:\MN_KIT\WIN95
```

After running MKDISKS, create diskettes with the COPY command; for example:

```
COPY C:\MN_KIT\WIN95\DISK_1\*.* A:
COPY C:\MN_KIT\WIN95\DISK_2\*.* A:
and so on
```

Once you create diskettes, install Cisco TCP/IP Suite by double-clicking the **SETUP.EXE** program on the first diskette and following the prompts.

Upgrading from an Evaluation Copy

If you obtained Cisco TCP/IP Suite 100 for Windows as an evaluation copy, you need only change the license key to obtain full use of the product. To change your license key:

Step 1   Start the Version Information application by doing one of the following:

- Choosing Version Information from the Cisco Suite 100 program group on the Windows 95 or Windows NT Start menu.

- Double-clicking the Version Information icon in the Cisco Suite 100 program group in the Windows 3.x program manager.

- Selecting Version Information from the system menu of the Cisco TCP/IP Suite Configuration Utility on Windows 3.x or Windows 95.

Step 2   Select the evaluation license key and click the **Modify** button beside the license list.

Step 3   Enter the new license key.