

Using the NBUTIL Utility with CiscoRemote Plus

For TCP/IP networks to access information on NetBIOS-based LANs, such as LAN Manager, NetBIOS names must be translated into TCP/IP addresses. The NBUTIL utility provides an easy way to make this translation.

The NBUTIL utility creates a table that is used by TCP/IP to convert NetBIOS names to IP addresses. Using the table, TCP/IP can locate Microsoft file and print servers and other servers that use NetBIOS whether they are located on a network or the Internet. See your network administrator for information about the use of NBUTIL and IP addresses for your specific network.

TCP/IP with NetBIOS

CiscoRemote Plus contains multiple protocol drivers, one of which is appropriate for your network. The install program automatically installs the correct driver.

The TCP/IP virtual protocol driver works with the Microsoft Windows for Workgroups and the Novell NetWare environments. This driver is compatible with both Microsoft network driver interface specification (NDIS)-compliant and Novell Open Data-Link Interface (ODI)-compliant Media Access Control (MAC) driver application programming interface (API). Running in 32-bit protected mode, the virtual protocol driver improves the performance of applications that access the network and eliminates the use of DOS conventional memory.

The TCP/IP real-mode protocol drivers are for the Microsoft LAN Manager networking environment. One driver is for use with NDIS-compliant MAC drivers and the other for ODI-compliant MAC drivers. Each real-mode protocol driver is a 16-bit terminate-and-stay-resident (TSR) program that runs in DOS conventional memory.

About the NBUTIL Utility

All of these TCP/IP drivers are compatible in features and APIs and they include network features such as a Simple Network Management Protocol (SNMP) agent, a Dynamic Host Configuration Protocol (DHCP) client, NetBIOS name server support, and parametric tuning for different network configurations.

About the NBUTIL Utility

You use the NBUTIL utility to create a NetBIOS name table which is used by your TCP/IP driver to translate NetBIOS names into IP addresses. After creating the name table, you can connect to remote systems not located on your local subnetwork by referencing NetBIOS names instead of IP addresses.

Table entries created by NBUTIL are lost after the current session. You must run the NBUTIL utility each time the TCP/IP stack is reloaded. To do so, include the NBUTIL commands in a WINSTART.BAT file or, for the real-mode TCP/IP stack, in the AUTOEXEC.BAT file.

Note If you use a NetBIOS name server, you do *not* need to use the NBUTIL utility.

Adding NetBIOS Names

You can enter NBUTIL commands to add entries to the NetBIOS name table in two different ways:

- Individually, by adding an IP address with its associated NetBIOS name.
- In a batch, by creating an ASCII text file containing multiple IP addresses with their associated NetBIOS names. Using the text file, you can add many names and addresses to the NetBIOS name table with one NBUTIL command.

Adding Names Individually

You can add names individually to the name table by entering the **NBUTIL** command as follows:

```
NBUTIL -a IP Address NETBIOS Name -l 2
```

For example, to add the NetBIOS name MailServer with the IP address 111.111.11.11 to the NetBIOS name table, enter the following command:

```
NBUTIL -a 111.111.11.11 MailServer -l 2
```

where:

-a adds a NetBIOS name/IP address pair to the NetBIOS name table.

-l 2 specifies on which instance of the CiscoRemote Plus protocol driver to operate. You must include this option with each command if the LAN adapter number (LANABase) is not the default value of 0. The 2 represents the LANABase used by the CiscoRemote Plus protocol driver.

If you do not know the LANABase being used, find the value for the LANABase parameter in one of the following files:

- NTST\$HLP section of your PROTOCOL.INI file if you are running the virtual protocol driver over an NDIS MAC driver.
- NTST_XIF section of the PROTOCOL.INI file if you are running the NDIS real-mode protocol driver.
- Protocol NTSTH section of the NET.CFG file if you are running the virtual protocol driver with an ODI MAC driver.
- Protocol NTSTO section of the NET.CFG file if you are running the ODI real-mode protocol driver.

Note If there is no value for the LANABase parameter in these files, the default (0) is used. In this case, the **-l** option is not required with the **NBUTIL** command.

If you are using CiscoRemote Plus for both LAN and remote access, two protocol drivers are active. To use NetBIOS applications for both connections, you must identify the LANABase for each driver in separate NBUTIL commands.

About the NBUTIL Utility

Descriptions of the NBUTIL command options follow:

- **-s**—Displays all the current entries in the NetBIOS name table.
- **-t**—Enables you to put embedded spaces in NetBIOS names by translating an underscore (_) into a space. When used with the **-s** option, **-t** translates spaces back into underscores.
- **-w**—Translates NetBIOS names into the format of the LAN Manager workstation name.
- **-x**—Translates the NetBIOS name you want to add to the NetBIOS name table into names that can be used by servers running LAN Manager.
- **?**—Displays a description of all command line options used with NBUTIL.

Adding Names in a Batch

You can also create an ASCII file containing IP addresses and their associated NetBIOS names. You then issue an NBUTIL command that adds the entries in this text file to the NetBIOS name table. Use the following format to create this file:

ipaddress netbiosname #optionalcomment

See Table 16-1 for file format options.

Table 16-1 File Format Options

<i>ipaddress</i>	IP address of the remote system you want to access
<i>netbiosname</i>	NetBIOS name associated with the IP address
<i>#optionalcomment</i>	Comment you want added to the file, added by entering a number symbol (#) followed by any additional information you want to add

When you have created the file, you add the list to the name table by entering the following command:

NBUTIL -f *filename*

Using the NBUTIL Utility with Microsoft Windows

To use Novell NetWare or Microsoft Windows for Workgroups, you must run the NBUTIL utility when Windows is running and the TCP/IP stack is loaded.

To have NBUTIL run automatically, take the following steps to change the WINSTART.BAT file:

Step 1 Create a file called WINSTART.BAT in the Windows directory.

Step 2 Enter the following commands in the WINSTART.BAT file:

```
C:\cisco\bin\NBUTIL -c
C:\cisco\bin\NBUTIL -a xxx.xxx.xxx.xxx netbios_name
```

where xxx.xxx.xxx.xxx is the address of your server and netbios_name is the NetBIOS name that the server uses.

If you are using Windows 3.1, you need to add the following NBUTIL commands to the end of your AUTOEXEC.BAT file *before* the **win** command:

```
C:\cisco\bin\NBUTIL -c
C:\cisco\bin\NBUTIL -a xxx.xxx.xxx.xxx netbios_name
```

where xxx.xxx.xxx.xxx is the address of your server and netbios_name is the NetBIOS name that it uses.

You can have the **NBUTIL** command access an ASCII text file that has the names and IP addresses to add to the list.

About the NBUTIL Utility
