

CiscoRemote NBUTIL

NBUTIL is a DOS application that enables the use of NetBIOS resources over TCP/IP. NBUTIL creates a table that is used by the TCP/IP protocols to convert NetBIOS names to IP addresses. The table enables TCP/IP to locate Microsoft file and print servers and other servers that use NetBIOS, regardless of where they might be on a network -- even over the Internet. Your Network Administrator will provide information about the use of NBUTIL and any required IP addresses if necessary.

This chapter describes the use of NBUTIL for those who need it.

TCP/IP Protocol with NetBIOS

CiscoRemote contains multiple protocol drivers, one of which is appropriate for your networking environment. The CiscoRemote Installation program automatically installs the correct driver.

The TCP/IP virtual protocol driver (VxD) works with the Microsoft Windows® for Workgroups and the Novell® Netware environments. This driver is fully compatible with the Microsoft NDIS-compliant MAC driver API (Application Programming Interface) and the Novell ODI-compliant MAC driver API. Running in 32-bit, protected mode, the VxD improves the performance of network-aware applications and eliminates the use of DOS conventional memory.

The TCP/IP real mode protocol drivers are designed for the Microsoft LAN Manager networking environment—one 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.

The NBUTIL Utility Program

All of these TCP/IP protocol drivers are fully compatible in terms of features and APIs. They contain enterprise networking features, including an SNMP (Simple Network Management Protocol) agent, a DHCP (Dynamic Host Configuration Protocol) client, full NetBIOS Name Server support and parametric tuning for different network configurations.

NetBIOS based LANs, such as LAN Manager, need to translate NetBIOS names into TCP/IP addresses. NBUTIL provides an easy way to provide this mapping.

The NBUTIL Utility Program

The NBUTIL utility program allows you to create and maintain a NetBIOS name table used by the CiscoRemote protocol driver to translate NetBIOS names to IP addresses. This enables you to connect to remote systems that are not located on your local subnetwork by referencing their names instead of IP addresses.

The entries created by NBUTIL are not maintained beyond the current session. NBUTIL must be run each time that the TCP/IP stack is reloaded. This can be done by including 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 NBUTIL.

Adding NetBIOS Names

You can use the NBUTIL command to add entries to the NetBIOS name table in two different ways:

- By adding the IP address of each system you want to access with its associated NetBIOS name individually.
- By creating an ASCII text file containing a number of IP addresses with their associated names. All of these names can be added to the NetBIOS name table by invoking the NBUTIL command only once.

If, for instance, you wanted to add the NetBIOS name *MailServer* with the IP address 111.111.11.11 to the NetBIOS name table, you would include 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 protocol driver to operate. You must include this option with each command if the LANABase is not the default value of 0. The 2 represents the LAN adapter number (LANABase) used by the CiscoRemote protocol driver.

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

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

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

If you are using CiscoRemote for both LAN and remote access, there are two protocol drivers active. If you intend to use NetBIOS applications for both connections, you must identify the LAN adapter number for each driver in separate NBUTIL commands.

-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.

The NBUTIL Utility Program

-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.

You can also create an ASCII file containing IP addresses and their associated NetBIOS names. The entries in this text file can be added to the NetBIOS name table. You must use the following format for this file:

ipaddress netbiosname #optionalcomment

where:

ipaddress is the IP address of the remote system you want to access.

netbiosname is a NetBIOS name associated with the IP address of the remote system you want to access.

#optionalcomment is a number symbol (#) followed by any additional information you want to add to the file as a comment.

Either of these two methods will achieve the same goal—that of adding the necessary addresses to the CiscoRemote applications.

NBUTIL and Windows Operation

If you are using the Novell Netware or Microsoft Windows for Workgroups, you must run the NBUTIL utility after Windows is running and the TCP/IP stack has been loaded. Use the following procedure to make sure this happens automatically.

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

Step 2 Type the following commands in this 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 it 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 could also point the NBUTIL command to an ASCII text file which has the names and IP addresses to add to the list.

The NBUTIL Utility Program
