

Microsoft Network Clients

Release Notes

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Overview of Windows Sockets

Microsoft TCP/IP includes support for Windows Sockets on Microsoft Windows and Windows for Workgroups workstations. A socket provides an end point to a connection; two sockets form a complete path. A socket works as a bi-directional pipe for incoming and outgoing data. The Windows Sockets API is a networking API tailored for use by programmers using the Microsoft Windows operating system. Windows Sockets is a public specification based on Berkeley UNIX sockets and aims to:

- Provide a familiar networking API to programmers using The Windows operating system or UNIX.
- Offer binary compatibility between heterogeneous Windows-based TCP/IP stack and utilities vendors.
- Support both connection-oriented and connectionless protocols.

If you are running an application that uses Windows Sockets, be sure to enable Windows Sockets when you configure Microsoft TCP/IP. If you are unsure whether any of your applications use Windows Sockets, refer to the documentation included with that vendor's application.

Setting DNR and Sockets Settings

If you specify the MS-TCP/IP protocol during setup, you will now see an additional dialog box after you have used the Advanced button in the MS-TCP/IP Configuration dialog box. This new dialog box, DNR and Sockets Settings, is used only if your MS-TCP/IP network has a domain name service (DNS) server. If your network has a DNS and you choose to configure the Domain Name Resolver (DNR) parameters, the DNR module will be loaded with your sockets and Telnet applications to

resolve hostname-to-IP address mappings. This allows you to specify remote computers by computername without knowing specific IP addresses.

If you use this dialog box, these are the values you will need to supply:

Username

Your username.

Hostname

The computername your workstation will report when using the remote services. The default is your LAN Manager computername.

Primary Nameserver IP Address

The IP address of the DNS server you want the DNR to consult first when resolving computername-to-IP address mappings.

Secondary Nameserver IP Address

The IP address of the DNS server you want the DNR to consult when resolving computername-to-IP address mappings if the request to the primary nameserver fails.

Domain Name Suffix

The suffix appended to any computername for DNS processing. Your network administrator can tell you what to enter here.

Enable Windows Sockets

Mark this checkbox if you want Sockets to be invoked from the AUTOEXEC.BAT file.

Number of Sockets

The maximum number of sockets that can be made available to applications at any one time. The range is 1 to 22 sockets.

Note: Some applications may use more than one socket to provide a service. Consider this when trying to maximize available memory. The total number of sockets and NetBIOS sessions combined must not exceed 22.

If Microsoft RPC Is Installed

If Microsoft Remote Procedure Call (RPC) is installed on your system, you must copy RPC16C3.DLL from the \DRIVERS\PROTOCOL\TCPIP directory of the DOS DRIVERS 2 disk to your WINDOWS\SYSTEM directory in order for Windows Sockets to work properly with Microsoft TCP/IP.

Using Windows for Workgroups and the Remote Access Service (RAS)

Installing Windows for Workgroups 3.1

If you plan to connect to the network using only Remote Access and a modem, click the Cancel button when Windows for Workgroups Setup prompts you for the type of network adapter you have.

Windows for Workgroups will give you several warning messages informing you that network functionality cannot be provided without network adapters. Disregard these messages if you plan to install Remote Access later. The Remote Access Setup program installs the device drivers required by Remote Access.

Note: If you plan to use a network adapter card and Remote Access at the same time, install the appropriate Windows for Workgroups network drivers.

Installing RAS on a Workstation Configured for both LAN Manager and Windows for Workgroups

Remote Access files are installed in your Windows for Workgroups directory by default if the directory is present in your path. If you want Remote Access to be installed in the LAN Manager directory on a computer that has valid installations of both LAN Manager 2.2 and Windows for Workgroups, temporarily delete the Windows for Workgroups directory from the path statement in the AUTOEXEC.BAT file and reboot the computer before running Remote Access Setup.

After RAS has been installed, be sure to replace the Windows for Workgroups directory in the path statement in the AUTOEXEC.BAT file.

Windows for Workgroups and MS-DOS Workgroup Connection

If you are running Windows for Workgroups or MS-DOS Workgroup Connection, you do not need to install LAN Manager before installing Remote Access.

No references to **rasload** apply to installations running Windows for Workgroups or MS-DOS Workgroup Connection. To load the Remote Access service, run Remote Access **Setup**. For instructions about running **Setup**, see the *Microsoft LAN Manager Remote Access Service Administrator's Guide*.

Not Enough Memory for Setup

If you don't have enough memory to install Remote Access service by running **Setup** on the Remote Access Setup disk, you can install it with **wfwsetup** for Windows for Workgroups and MS-DOS Workgroup Connection, or **lmrsetup** for LAN Manager. This procedure requires about 35 kilobytes (K) less random access memory (RAM).

To run setup this way, insert the Remote Access Setup disk into drive A, and follow the appropriate step:

- From the Windows File Manager, change to drive A and click WFWSETUP.EXE or LMRSETUP.EXE, whichever applies.
- From the command line, type

```
a:wfwsetup
```

Or type

```
a:lmrsetup
```

Avoiding the Delay from Browsing Domains

When you click the Connect Network Drive button on the Windows for Workgroups File Manager, all domains on the network are browsed. When accessing the network through the Remote Access Service, browsing all domains can cause an unwanted delay if you already know what share you want to connect to. To avoid browsing and therefore eliminate the delay, follow these steps:

1. Connect to the share from the command line by typing the net use command followed by the drive letter, server name, and share name. The syntax is:

net use x: \\servername\sharename

2. Once you've connected, refresh the File Manager display to see the drive letter you assigned to your share. To refresh the display, pull down the Windows menu and click Refresh, or press the F5 key.

Reinstalling Remote Access

You must remove and then reinstall Remote Access Service, using Setup, under the following circumstances:

- If you are running Windows for Workgroups or MS-DOS Workgroup Connection and you encounter problems relating to configuration files.

Note: In this case, error messages that refer to LAN Manager configuration files do not apply. However, error messages dealing with Remote Access configuration files, modem errors, and so on still apply to both Windows for Workgroups and MS-DOS Workgroup Connection.

- If you upgrade from MS-DOS Workgroup Connection to Windows for Workgroups.

Modifying Configuration

To modify the Remote Access configuration:

Platform	Procedure
Windows for Workgroups	Click the Remote Access icon on the control panel.
MS-DOS Workgroup Connection	Run Remote Access Setup from the DOS\RAS directory.

To save RAM, both VCOMMID.EXE and WANTSR.EXE can be loaded high, assuming you have a configuration that allows terminate-and-stay-resident (TSR) programs to be loaded high. Find the following lines in your AUTOEXEC.BAT file:

```
C:\WINDOWS\ras\vcommid.exe  
C:\WINDOWS\ras\wantsr.exe
```

Change them to:

```
loadhigh C:\WINDOWS\ras\vcommid.exe  
loadhigh C:\WINDOWS\ras\wantsr.exe
```

Using NetBEUI

If you are using both NetBEUI (to use the local network) and RAS (to access a remote network), you need to be using the real mode version of NetBEUI rather than the protect mode version that is normally loaded when The Windows operating system is started. To use the real mode version, issue the command **net start netbeui** before starting the Windows operating system. If your local network does not require the NetBEUI protocol, this is not a problem.

The real mode NetBEUI will take up space in the real mode stack. If this is a problem, you can disable RAS and allow the protect mode NetBEUI to be loaded when The Windows operating system is started. This will allow you to use the local network, but not RAS. To use RAS again you must re-enable RAS and then either explicitly load NetBEUI before starting The Windows operating system or not use local area network resources that require the use of NetBEUI. You can disable RAS from within The Windows operating system or from the command line.

▣ To disable RAS from within The Windows operating system

1. Choose the Remote Access icon from the Control Panel.
2. Clear the Enable Remote Access checkbox.
3. Reboot your computer.

▣ To disable RAS from the Command Line

1. Go to the RAS subdirectory of the WINDOWS directory by typing a command such as **cd c:\windows\ras**.
2. Start the RAS setup program by typing **setup**.
3. Clear the Enable Remote Access checkbox.
4. Reboot your computer.

Using Modems with Advanced Features

If you have a modem that can do hardware data compression, or supports speeds above 19.2K baud, use the alternate modem configuration file that enables these advanced features. The file is MCOMP.INF. Use the following procedure to access advanced modem features.

▣ To use the advanced features of the modem:

1. Insert the Remote Access Setup disk into drive A.
2. Go to your Windows directory if you are using Windows for Workgroups, or to your LAN Manager root directory.
3. Rename the MODEMS.INF file to a temporary filename such as MODEMS.OLD.
4. Copy the new file using the following command:

```
copy a:mcomp.inf modems.inf
```
5. Run the RAS Setup program again and select the your modem from the list of modems.

If the modem does not appear in the list of modems, the advanced features are not supported on that particular modem. In this case, exit RAS Setup copy MODEMS.OLD (or whatever you renamed it to) back to MODEMS.INF and run the RAS Setup program again to select the appropriate modem.

6.Exit RAS Setup and reboot the computer.

Creating New Modem Sections

When creating new modem sections, be sure to

- set the modem to always report DTE speed (port to modem speed) instead of the DCE speed (modem to modem speed)
- set modem to NOT report negotiation progress.

Turning Compression On or Off

The following modems should turn off compression when connecting to OS/2 based RAS 1.x servers, and turn on compression when connecting to NT base RAS servers.

- Codex 3220 Plus
- Codex 326x FAST series
- US Robotics Courier modems
- UDS 3229

DSI 9624LE Modems

The DSI 9624LE modem will only work when connected at high speed (9600 baud or greater). Do not use this modem if connecting at 4800 or lower speed.