

Windows TCP/IP Registry Entries

The information in this article applies to:

- Microsoft Windows 95
- Microsoft Windows 98

IMPORTANT: *This article contains information about editing the registry. Before you edit the registry, make sure you understand how to restore it if a problem occurs. For information about how to do this, view the "Restoring the Registry" Help topic in Regedit.exe or the "Restoring a Registry Key" Help topic in [Regedt32.exe](#).*

SUMMARY

This article documents the Windows registry entries for the TCP/IP protocol. For more information about Windows TCP/IP settings, see the Win95rk.hlp file in the Admin\Reskit\Helpfile folder on the Windows 95 CD-ROM.

MORE INFORMATION

WARNING: Using Registry Editor incorrectly can cause serious problems that may require you to reinstall your operating system. Microsoft cannot guarantee that problems resulting from the incorrect use of Registry Editor can be solved. Use Registry Editor at your own risk.

For information about how to edit the registry, view the "Changing Keys and Values" Help topic in Registry Editor (Regedit.exe) or the "Add and Delete Information in the Registry" and "Edit Registry Data" Help topics in Regedt32.exe. Note that you should back up the registry before you edit it. If you are running Windows NT, you should also update your Emergency Repair Disk (ERD).

The Value entries described in this article do not normally exist in the Windows registry; they must be added to the following registry key:

[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Services\VxD\MSTCP](#)

Values

BroadcastAddress = broadcast address in hexadecimal

Data Type: DWORD

For Windows 98, the Data Type is a String value.

Specifies the address to use for NetBIOS name query broadcasts. The default is based on the IP address and the subnet mask.

BcastNameQueryCount = integer

Data Type: DWORD

For Windows 98, the Data Type is a String value.

Specifies the number of times the system will retry NetBIOS name query broadcasts. The default is 3.

BcastQueryTimeout = milliseconds

Data Type: DWORD

For Windows 98, the Data Type is a String value.

Specifies the period of time the system will wait before timing out broadcast name queries. The minimum value is 100. The default is 750.

BSDUrgent = 0 or 1

Data Type: DWORD

For Windows 98, the Data Type is a String value.

If this value is 1, it specifies that Microsoft TCP/IP is to treat urgent data the way some UNIX systems do (with a maximum of 1 byte of urgent data, for example). If this value is 0, it specifies that the stack is to handle urgent data as specified by RFC 1122. The default is 1.

CacheTimeout = milliseconds

Data Type: DWORD

For Windows 98, the Data Type is a String value.

Specifies how long NetBIOS names are cached. The minimum is 60,000 milliseconds (1 minute). The default is 360,000 milliseconds (6 minutes).

DeadGWDetect = 0 or 1

Data Type: DWORD

For Windows 98, the Data Type is a String value.

Specifies whether Microsoft TCP/IP will use another gateway if the current default gateway seems to be down. The default is 1.

DefaultRcvWindow = 16-bit number

Data Type: DWORD

For Windows 98, the Data Type is a String value.

Specifies the default receive window advertised by TCP. The default is 8192.

DefaultTOS = 8-bit number

Data Type: DWORD

Specifies the default type of service (TOS) for IP packets initiated by Microsoft TCP/IP. The default is 0.

DefaultTTL = 8-bit number

Data Type: String

Specifies the default time to live (TTL) for IP packets from Microsoft TCP/IP. The default is 32.

DnsServerPort = port

Data Type: DWORD

For Windows 98, the Data Type is a String value.

Specifies which DNS server port to send queries to when resolving a name using DNS. The default is 53.

EnableProxy = 0 or 1

Data Type: DWORD

For Windows 98, the Data Type is a String value.

If this value is 1, it specifies that this computer is a WINS proxy agent. The default is 0.

IGMPLevel = 0, 1, or 2

Data Type: DWORD

For Windows 98, the Data Type is a String value.

Specifies the level of support allowed for IP multicast, corresponding to the levels in RFC 1112. The default is 2.

InitialRefreshT.O. = milliseconds

Data Type: DWORD

For Windows 98, the Data Type is a String value.

Specifies the interval over which to contact WINS to refresh the name. The minimum is 16 minutes, and the maximum is approximately 50 days (0xFFFFFFFF). The default is 960,000 milliseconds (16 minutes).

KeepAliveTime = milliseconds

Data Type: DWORD

Specifies the connection idle time in milliseconds before TCP will begin sending keepalives, if keepalives are enabled on a connection. The default is 2 hours (7,200,000).

KeepAliveInterval = 32-bit number

Data Type: DWORD

For Windows 98, the Data Type is a String value.

Specifies the time in milliseconds between retransmissions of keepalives, once the KeepAliveTime has expired. Once KeepAliveTime has expired, keepalives are sent every KeepAliveInterval milliseconds until a response is received, up to a maximum of MaxDataRetries before the connection is aborted. The default is 1 second (1000).

LmhostsTimeout = milliseconds

Data Type: DWORD

For Windows 98, the Data Type is a String value.

Specifies the period of time the system will wait before timing out when seeking LMHOSTS for name resolution. The minimum value is 1000 (1 second). The default is 10,000 (10 seconds).

MaxConnections = 32-bit number

Data Type: String

Specifies the maximum number of concurrent connections. The default is 100.

MaxConnectRetries = Number

Data Type: String

Specifies the number of times a connection attempt (SYN) will be retransmitted before giving up. The initial retransmission timeout is 3 seconds, and it is doubled each time up to a maximum of 2 minutes. The default is 3.

MaxDataRetries = 32-bit number

Data Type: String

Specifies the maximum number of times a segment carrying data or an FIN will be retransmitted before the connection is aborted. The retransmission timeout itself is adaptive and will vary according to link conditions. The default is 5.

NameServerPort = port

Data Type: DWORD

For Windows 98, the Data Type is a String value.

Specifies the UDP port on the name server to which to send name queries or registrations. The default is 137.

NameSrvQueryCount = integer

Data Type: String

Specifies the number of times the system will try to contact the WINS server for NetBIOS name resolution. The default is 3.

NameSrvQueryTimeout = milliseconds

Data Type: DWORD

For Windows 98, the Data Type is a String value.

Specifies how long the system waits before timing out a name server query. The minimum is 100. The default is 750.

NameTableSize = integer

Data Type: DWORD

For Windows 98, the Data Type is a String value.

Specifies the maximum number of names in the NetBIOS name table. The minimum allowable value is 1 and the maximum is 255. The default is 17.

NodeType = 1, 2, 4, or 8

Data Type: String

Specifies the mode of NetBIOS name resolution used by NetBIOS over TCP/IP, where 1 = b-node, 2 = p-node, 4 = m-node, and 8 = h-node. This value can be configured using DHCP. The default is 1 (b-node) if no value is specified; if WINS servers are specified and NodeType is not, the default is 8 (h-node).

PMTUBlackHoleDetect = 0 or 1

Data Type: DWORD

For Windows 98, the Data Type is a String value.

Specifies whether the stack will attempt to detect Maximum Transmission Unit (MTU) routers that do not send back ICMP fragmentation-needed messages. Setting this parameter when it is not needed can cause performance degradation. The default is 0.

PMTUDiscovery = 0 or 1

Data Type: DWORD

For Windows 98, the Data Type is a String value.

Specifies whether Microsoft TCP/IP will attempt to perform path MTU discovery as specified in RFC 1191. The default is 1.

RandomAdapter = 0 or 1

Data Type: DWORD

For Windows 98, the Data Type is a String value.

For a computer with multiple network adapters, specifies whether to respond with an IP address selected randomly from the set of addresses on the computer or whether to return the IP address of the adapter that the request came in upon. The default is 0 (not random; that is, return the address of the adapter that the request came in upon).

RoutingBufSize = 32-bit number

Data Type: DWORD

For Windows 98, the Data Type is a String value.

Specifies the total amount of buffer space to allocate for routing packets. This parameter is ignored if EnableRouting=0. The default is 73,216.

RoutingPackets = 32-bit number

Data Type: DWORD

For Windows 98, the Data Type is a String value.

Specifies the maximum number of packets that can be routed simultaneously. This parameter is ignored if EnableRouting=0. The default is 50.

SessionKeepAlive = milliseconds

Data Type: DWORD

For Windows 98, the Data Type is a String value.

Specifies how often to send session keepalive packets on active sessions. The minimum is 60 seconds. The default is 3600 seconds (1 hour).

SessionTableSize = integer

Data Type: DWORD

For Windows 98, the Data Type is a String value.

Specifies the maximum number of sessions in the NetBIOS session table. The minimum allowable value is 1 and the maximum is 255. The default is 255.

SingleResponse = 0 or 1

Data Type: DWORD

For Windows 98, the Data Type is a String value.

For a computer with multiple network adapters, specifies whether to send all IP addresses on a name query request from WINS. If this value is 1, the system will send one address in a name query response; if 0, it will return all the addresses of its adapters. The default is 0.

Size/Small/Medium/Large = 1, 2, or 3

Data Type: DWORD

For Windows 98, the Data Type is a String value.

Specifies how many buffers of various types to pre-allocate and the maximum that can be allocated, where 1 = small, 2 = medium, and 3 = large. The default is 1; the default is 3 if the WINS proxy is enabled.

Tcp1323Opts = 0, 1, 2 or 3

Data Type: DWORD

Controls RFC 1323 time stamps and window scaling options, where 0 = disable RFC 1323 options, 1 = window scale enabled only, 2 = time stamps enabled only, and 3 = both options enabled.

This section describes variables for subkeys that appear in the following registry key:

[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Services\VxD\MSTCP\ServiceProvider](#)

The following keys describe the order used to resolve host names. A lower number sets a higher priority for name resolution. These settings are used for 16-bit Windows Sockets, which need to rely on the resolvers that are expected to take the least time. The numbers indicate the default values specified in Windows.

Note that the below values apply to Windows Sockets 1.1, and are not used if Windows Sockets 2.0 is installed (this is the default for Windows 98, and is an option for Windows 95).

LocalPriority = 499
HostsPriority = 500
DNSPriority = 2000
NetbtPriority = 2001

The entries in this section must be added to the following registry key, where n represents the particular TCP/IP-to-network adapter binding.

[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Services\Class\netTrans\000n](#)

MaxMTU = 16-bit integer

Data Type: String

Specifies the maximum size datagram IP that can pass to a media driver. SNAP and source routing headers (if used on the media) are not included in this value. For example, on an Ethernet network, MaxMTU will default to 1500. The actual value used will be the minimum of the value specified with this parameter and the size reported by the media driver. The default is the size reported by the media driver.