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***PowerShell Get-Help on command 'Set-NetIPv4Protocol'***

***PS C:\Users\wahid> Get-Help Set-NetIPv4Protocol***

NAME

Set-NetIPv4Protocol

SYNOPSIS

Modifies information about the IPv4 Protocol configuration.

SYNTAX

Set-NetIPv4Protocol [-AddressMaskReply {Disabled | Enabled}] [-AsJob]
[-CimSession <CimSession[]>] [-Confirm] [-DeadGatewayDetection
<DeadGatewayDetection>] [-DefaultHopLimit <UInt32>] [-DhcpMediaSense {Disabled
| Enabled}] [-GroupForwardedFragments {Disabled | Enabled}] [-IGMPLevel {None
| SendOnly | All}] [-IGMPVersion {Version1 | Version2 | Version3}]
[-IcmpRedirects {Disabled | Enabled}] [-InputObject <CimInstance[]>]
[-MediaSenseEventLog {Disabled | Enabled}] [-MinimumMtu <UInt32>]
[-MulticastForwarding {Disabled | Enabled}] [-NeighborCacheLimitEntries
<UInt32>] [-PassThru] [-RandomizeIdentifiers {Disabled | Enabled}]
[-ReassemblyLimitBytes <UInt32>] [-RouteCacheLimitEntries <UInt32>]
[-SourceRoutingBehavior {Forward | DontForward | Drop}] [-ThrottleLimit
<Int32>] [-WhatIf] [<CommonParameters>]

DESCRIPTION

The Set-NetIPv4Protocol cmdlet modifies the global IPv4 protocol configuration for a computer. If you do not specify any parameters for the cmdlet, the cmdlet sets the default values for the global IPv6 protocol configuration.

PARAMETERS

-AddressMaskReply <AddressMaskReply>

Specifies a value for address mask reply. The cmdlet modifies the value for this setting. Address mask reply specifies how the computer responds to ICMP address mask packets. The acceptable values for this parameter are:

- Enabled. The computer responds to ICMP address mask packets. - Disabled. The computer does not respond to ICMP address mask packets.

-AsJob [<SwitchParameter>]

Runs the cmdlet as a background job. Use this parameter to run commands that take a long time to complete.

-CimSession <CimSession[]>

Runs the cmdlet in a remote session or on a remote computer. Enter a computer name or a session object, such as the output of a New-CimSession (https://go.microsoft.com/fwlink/p/?LinkId=227967) or [Get-CimSession](https://go.microsoft.com/fwlink/p/?LinkId=227966)cmdlet. The default is the current session on the local computer.

-Confirm [<SwitchParameter>]

Prompts you for confirmation before running the cmdlet.

-DeadGatewayDetection <DeadGatewayDetection>

Specifies an array of values for dead gateway detection. The cmdlet gets IPv4 protocol configurations that have these values. Dead gateway

detection is a feature that identifies gateways that are not operating properly and switches the computer to a new default gateway if available. The acceptable values for this parameter are:

- Enabled

- Disabled

-DefaultHopLimit <UInt32>

Specifies a value for the default hop limit. The cmdlet modifies the value for this setting. This parameter sets the default value for the CurrentHopLimit property in the IP interface. The current hop limit is the value that the IP interface writes in the hop limit field in all outbound IPv4 traffic. When routers forward a packet, they decrement the hop limit by 1 and discard the packet when the hop limit is 0. The default value is 128.

-DhcpMediaSense <DhcpMediaSense>

Specifies a value for Media Sense. The cmdlet modifies the value for this setting.

Media Sense provides a mechanism for the network adapter to notify the protocol stack of media connect and disconnect events. These events trigger the DHCP client to take an action, such as attempting to renew a DHCP lease or removing routes that are related to a disconnected network. When Media Sense is enabled, the network parameters on the laptop of a roaming user are automatically and transparently updated without requiring a restart when the user moves from one location to another. The acceptable values for this parameter are:

- Enabled

- Disabled

The default value is Enabled.

-GroupForwardedFragments <GroupForwardedFragments>

Specifies a value for group forwarded fragments. The cmdlet modifies the value for this setting. Group forwarded fragments specifies whether the IP interface collects fragments into groups before it forwards the fragments. This parameter sets the GroupForwardedFragments property in the IP interface. The acceptable values for this parameter are:

- Enabled. The IP interface collects IPv6 protocol fragments into groups before it forwards the fragments. - Disabled. The IP interface does not collect IPv6 protocol fragments into groups before it forwards the fragments.

The default value is Disabled.

-IGMPLevel <MldLevel>

Specifies a value for Internet Group Management Protocol (IGMP) level. The cmdlet modifies the value for this setting. The IGMP level specifies the level of multicast support. The acceptable values for this parameter are:

- None

- SendOnly

- All

The default value is All.

-IGMPVersion <MldVersion>

Specifies a value for the IGMP version number. The cmdlet modifies the value for this setting. The IGMP version is the maximum IGMP version supported by the host.

-IcmpRedirects <IcmpRedirects>

Specifies a value for Internet Control Message Protocol (ICMP) redirect. The cmdlet modifies the value for this setting. ICMP redirect specifies whether to update the path cache in response to ICMP redirect packets. This parameter sets the IcmpRedirects property in the IP interface. The acceptable values for this parameter are:

- Enabled. The IP interface updates the path cache in response to ICMP redirect packets. - Disabled. The IP interface does not update the path cache in response to ICMP redirect packets.

The default value is Enabled.

-InputObject <CimInstance[]>

Specifies the input object that is used in a pipeline command.

-MediaSenseEventLog <MediaSenseEventLog>

Specifies a value for Media Sense event log. The cmdlet modifies the value for this setting. The acceptable values for this parameter are:

- Enabled. The IP interface logs DHCP Media Sense events in the event log for troubleshooting purposes. - Disabled. The IP interface does not log DHCP Media Sense events in the event log.

The default value is Disabled.

-MinimumMtu <UInt32>

Specifies a value, in bytes, for the network layer Maximum Transmission Unit (MTU). For IPv4 the minimum value is 576 bytes. For IPv6 the minimum is value is 1280 bytes. For both IPv4 and IPv6, the maximum value is 2^32-1 (4294967295). You cannot set values outside these ranges.

-MulticastForwarding <MulticastForwarding>

Specifies a value for multicast forwarding. The cmdlet modifies the value for this setting. The acceptable values for this parameter are:

- Enabled. The computer can forward multicast packets. - Disabled. The computer cannot forward multicast packets.

The default value is Disabled.

-NeighborCacheLimitEntries <UInt32>

Specifies the maximum number of entries in the neighbor cache, which consists of all dynamic neighbors no longer referenced. The cmdlet modifies the value for this setting.

The default value is 256.

-PassThru [<SwitchParameter>]

Returns an object representing the item with which you are working. By default, this cmdlet does not generate any output.

-RandomizeIdentifiers <RandomizeIdentifiers>

Specifies a value for the randomization of identifiers. The cmdlet modifies the value for this setting. The acceptable values for this parameter are:

- Enabled. The IP interface randomizes identifiers when it creates an IP address. - Disabled. The IP interface does not randomize identifiers when it creates an IP address.

The default value is Enabled.

-ReassemblyLimitBytes <UInt32>

Specifies a value for the maximum size of the reassembly buffer. The cmdlet modifies the value for this setting.

-RouteCacheLimitEntries <UInt32>

Specifies a value for the maximum number of route cache entries. The cmdlet modifies the value for this setting.

The default value is 128.

-SourceRoutingBehavior <SourceRoutingBehavior>

Specifies a value for source routing behavior. The cmdlet modifies the value for this setting. The acceptable values for this parameter are:

- DontForward. The computer can receive but not forward source-routed packets. - Drop. The computer drops source-routed packets.

The default value is DontForward.

-ThrottleLimit <Int32>

Specifies the maximum number of concurrent operations that can be established to run the cmdlet. If this parameter is omitted or a value of `0` is entered, then Windows PowerShell® calculates an optimum throttle limit for the cmdlet based on the number of CIM cmdlets that are running on the computer. The throttle limit applies only to the current cmdlet, not to the session or to the computer.

-WhatIf [<SwitchParameter>]

Shows what would happen if the cmdlet runs. The cmdlet is not run.

<CommonParameters>

This cmdlet supports the common parameters: Verbose, Debug, ErrorAction, ErrorVariable, WarningAction, WarningVariable, OutBuffer, PipelineVariable, and OutVariable. For more information, see about_CommonParameters (https:/go.microsoft.com/fwlink/?LinkID=113216).

------- Example 1: Enable the DHCP Media Sense event log -------

PS C:\>Set-NetIPv4Protocol -MediaSenseEventLog Enabled

This command enables the DHCP Media Sense event log.

--------- Example 2: Increase the number of neighbors ---------

PS C:\>Set-NetIPv4Protocol -NeighborCacheLimitEntries 1000

This command increases the size of the cache of on-link neighbors on the subnet that are no longer referenced to 1,000. The default value is 256.

REMARKS

To see the examples, type: "get-help Set-NetIPv4Protocol -examples".

For more information, type: "get-help Set-NetIPv4Protocol -detailed".

For technical information, type: "get-help Set-NetIPv4Protocol -full".

For online help, type: "get-help Set-NetIPv4Protocol -online"