



Windows PowerShell Get-Help on Cmdlet 'Get-NetIPv6Protocol'

PS:\>Get-HELP Get-NetIPv6Protocol -Full

NAME

Get-NetIPv6Protocol

SYNOPSIS

Gets IPv6 protocol configurations.

SYNTAX

```
Get-NetIPv6Protocol [-AddressMaskReply {Disabled | Enabled}] [-AsJob] [-CimSession <CimSession[]>]
[-DeadGatewayDetection <DeadGatewayDetection[]>] [-DefaultHopLimit
<UInt32[]>] [-DhcpMediaSense {Disabled | Enabled}] [-GroupForwardedFragments {Disabled | Enabled}] [-IcmpRedirects
{Disabled | Enabled}] [-MaxTemporaryDadAttempts
<UInt32[]>] [-MaxTemporaryDesyncTime <TimeSpan[]>] [-MaxTemporaryPreferredLifetime <TimeSpan[]>]
[-MaxTemporaryValidLifetime <TimeSpan[]>] [-MediaSenseEventLog
{Disabled | Enabled}] [-MldLevel {None | SendOnly | All}] [-MldVersion {Version1 | Version2}] [-MulticastForwarding
{Disabled | Enabled}] [-NeighborCacheLimitEntries
<UInt32[]>] [-RandomizeIdentifiers {Disabled | Enabled}] [-ReassemblyLimitBytes <UInt32[]>] [-RouteCacheLimitEntries
<UInt32[]>] [-SourceRoutingBehavior {Forward |
DontForward | Drop}] [-TemporaryRegenerateTime <TimeSpan[]>] [-ThrottleLimit <Int32>] [-UseTemporaryAddresses
{Disabled | Enabled | Always}] [<CommonParameters>]
```

DESCRIPTION

The Get-NetIPv6Protocol cmdlet gets the global IPv6 protocol configurations for the computer. The cmdlet returns IPv6 Protocol settings, such as the Internet Control

Message Protocol (ICMP) setting, the default hop limit, the neighbor cache limit, and the multicast configuration. If you do not specify any parameters, the cmdlet

gets all the IPv6 Protocol configuration settings.

PARAMETERS

-AddressMaskReply <AddressMaskReply[]>

Specifies an array of values for address mask reply. The cmdlet gets the IPv6 protocol configurations that have these values. 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.

Required?	false
Position?	named
Default value	None
Accept pipeline input?	False
Accept wildcard characters?	false

-AsJob [<SwitchParameter>]

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

Required?	false
Position?	named
Default value	False
Accept pipeline input?	False
Accept wildcard characters?	false

-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.

Required?	false
Position?	named
Default value	None
Accept pipeline input?	False
Accept wildcard characters?	false

-DeadGatewayDetection <DeadGatewayDetection[]>

Specifies an array of values for dead gateway detection. The cmdlet gets IPv6 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

Required?	false
Position?	named
Default value	None
Accept pipeline input?	False
Accept wildcard characters?	false

-DefaultHopLimit <UInt32[]>

Specifies an array of values for the default hop limit. The cmdlet gets the IPv6 protocol configurations that have these

values. The default hop limit is 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 time-to-live (TTL)

field in all outbound traffic. When routers forward a packet, they decrement the hop limit by 1 and discard the packet when the hop limit is 0.

Required?	false
Position?	named
Default value	None
Accept pipeline input?	False
Accept wildcard characters?	false

-DhcpMediaSense <DhcpMediaSense[]>

Specifies an array of values for Media Sense. The cmdlet gets IPv6 protocol configurations that have these values.

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

Required?	false
Position?	named
Default value	None
Accept pipeline input?	False
Accept wildcard characters?	false

-GroupForwardedFragments <GroupForwardedFragments[]>

Specifies an array of values for group forwarded fragments. The cmdlet gets IPv6 protocol configurations that have these values. Group forwarded fragments

specifies whether the IP interface collects fragments into groups before it forwards the fragments. The acceptable values for this parameter are:

- Enabled. The IP interface collects IPv4 protocol fragments into groups before it forwards the fragments. - Disabled.

The IP interface does not collect IPv4

protocol fragments into groups before it forwards the fragments.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-IcmpRedirects <IcmpRedirects[]>

Specifies an array of values for ICMP redirects. The cmdlet gets IPv4 protocol configurations that have these values.

ICMP redirects specifies whether to update

the path cache in response to ICMP redirect packets. 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.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-MaxTemporaryDadAttempts <UInt32[]>

Specifies an array of values for the maximum number of duplicate address detection attempts for temporary

addresses. The cmdlet gets IPv6 protocol configurations that have these values.

Required?	false
Position?	named
Default value	None
Accept pipeline input?	False
Accept wildcard characters?	false

-MaxTemporaryDesyncTime <TimeSpan[]>

Specifies an array of values for the maximum time to desynchronize temporary address preferred lifetimes. The cmdlet gets IPv6 protocol configurations that have these values.

Required?	false
Position?	named
Default value	None
Accept pipeline input?	False
Accept wildcard characters?	false

-MaxTemporaryPreferredLifetime <TimeSpan[]>

Specifies an array of values, as TimeSpan objects, for the maximum preferred lifetime over which to prefer a temporary address. The cmdlet gets IPv6 protocol configurations that have these values.

Required?	false
Position?	named
Default value	None
Accept pipeline input?	False
Accept wildcard characters?	false

-MaxTemporaryValidLifetime <TimeSpan[]>

Specifies an array of values, as TimeSpan objects, for the maximum lifetime over which a temporary address is valid.

The cmdlet gets IPv6 protocol configurations

that have these values.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-MediaSenseEventLog <MediaSenseEventLog[]>

Specifies an array of values for Media Sense event log. The cmdlet gets IPv6 protocol configurations that have these values. Media Sense event log specifies

whether the computer logs DHCP Media Sense events. 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.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-MldLevel <MldLevel[]>

Specifies an array of values for the level of Multicast Listener Discovery (MLD) support. The cmdlet gets IPv6 protocol configurations that have these values. The

acceptable values for this parameter are:

- All. The computer can send and receive multicast packets. - None. The computer cannot send or receive multicast packets. - SendOnly. The computer can send but not receive multicast packets.

Required? false
Position? named
Default value None
Accept pipeline input? False
Accept wildcard characters? false

`-MldVersion <MldVersion[]>`

Specifies an array of values for the maximum version of Multicast Listener Discovery that the host supports. The cmdlet gets IPv6 protocol configurations that have these values.

Required? false
Position? named
Default value None
Accept pipeline input? False
Accept wildcard characters? false

`-MulticastForwarding <MulticastForwarding[]>`

Specifies an array of values for multicast forwarding. The cmdlet gets IPv6 protocol configurations that have these values. The acceptable values for this parameter are:

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

Required? false
Position? named
Default value None
Accept pipeline input? False
Accept wildcard characters? false

`-NeighborCacheLimitEntries <UInt32[]>`

Specifies an array of values for the maximum number of neighbor cache entries. The cmdlet gets IPv6 protocol configurations that have these values.

Required? false
Position? named
Default value None
Accept pipeline input? False
Accept wildcard characters? false

-RandomizeIdentifiers <RandomizeIdentifiers[]>

Specifies an array of values for the randomization of identifiers. The cmdlet gets IPv6 protocol configurations that have these values. 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.

Required? false
Position? named
Default value None
Accept pipeline input? False
Accept wildcard characters? false

-ReassemblyLimitBytes <UInt32[]>

Specifies an array of values for the maximum size of the reassembly buffer. The cmdlet gets IPv6 protocol configurations that have these values.

Required? false
Position? named
Default value None
Accept pipeline input? False
Accept wildcard characters? false

-RouteCacheLimitEntries <UInt32[]>

Specifies an array of values for the maximum number of route cache entries. The cmdlet gets IPv6 protocol configurations that have these values.

Required?	false
Position?	named
Default value	None
Accept pipeline input?	False
Accept wildcard characters?	false

-SourceRoutingBehavior <SourceRoutingBehavior[]>

Specifies an array of values for the behavior for source-routed packets. The cmdlet gets IPv6 protocol configurations that have these values. 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.

Required?	false
Position?	named
Default value	None
Accept pipeline input?	False
Accept wildcard characters?	false

-TemporaryRegenerateTime <TimeSpan[]>

Specifies an array of values, as TimeSpan objects, for the time before deprecating a temporary address when a new address is generated.

The cmdlet gets IPv6 protocol configurations that have these values.

Required?	false
Position?	named
Default value	None
Accept pipeline input?	False

Accept wildcard characters? false

-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.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-UseTemporaryAddresses <UseTemporaryAddresses[]>

Specifies an array of values for temporary addresses. The cmdlet gets IPv6 protocol configurations that have these values. The acceptable values for this

parameter are:

- Always. The computer always generates temporary addresses by using random numbers. - Counter. The computer generates temporary addresses by using the interface

identifier. You typically use this identifier for test purposes. - Disabled. The computer does not use temporary addresses. - Enabled. The computer uses temporary addresses.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

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

INPUTS

None

OUTPUTS

Microsoft.Management.Infrastructure.CimInstance#root\StandardCimv2\MSFT_NetIPv6Protocol

The `Microsoft.Management.Infrastructure.CimInstance` object is a wrapper class that displays Windows Management Instrumentation (WMI) objects. The path after the pound sign (`#`) provides the namespace and class name for the underlying WMI object.

NOTES

----- Example 1: Get all IPv6 protocol configurations -----

```
PS C:\>Get-NetIPv6Protocol
```

This command gets all IPv6 protocol configurations for the IP interface. The default output for the cmdlet does not include all properties of the `NetIPv6Protocol` object.

Example 2: Output all properties of IPv6 protocol configurations

```
PS C:\>Get-NetIPv6Protocol | Format-List -Property *
```

This command gets all IPv6 protocol configurations for the IP interface. The command uses the Format-List cmdlet to display all the properties in the output in the

form of a table. For more information, type ``Get-Help Format-Table``. The command default output omits some properties.

RELATED LINKS

Online

Version:

https://learn.microsoft.com/powershell/module/nettcpip/get-netipv6protocol?view=windowsserver2022-ps&wt.mc_id=ps-gethelp

Set-NetIPv6Protocol

Get-NetIPv4Protocol