



Windows PowerShell Get-Help on Cmdlet 'Remove-NetNeighbor'

PS:\>Get-HELP Remove-NetNeighbor -Full

NAME

Remove-NetNeighbor

SYNOPSIS

Removes neighbor cache entries.

SYNTAX

Remove-NetNeighbor [[-IPAddress] <String[]>] [-AddressFamily {IPv4 | IPv6}] [-AsJob] [-AssociatedIPInterface <CimInstance>] [-CimSession <CimSession[]>] [-Confirm]

[-IncludeAllCompartments] [-InterfaceAlias <String[]>] [-InterfaceIndex <UInt32[]>] [-LinkLayerAddress <String[]>] [-PassThru] [-PolicyStore <String>] [-State

{Unreachable | Incomplete | Probe | Delay | Stale | Reachable | Permanent}] [-ThrottleLimit <Int32>] [-WhatIf] [<CommonParameters>]

Remove-NetNeighbor [-AsJob] [-CimSession <CimSession[]>] [-Confirm] -InputObject <CimInstance[]> [-PassThru] [-ThrottleLimit <Int32>] [-WhatIf] [<CommonParameters>]

DESCRIPTION

The Remove-NetNeighbor cmdlet removes neighbor cache entries. The neighbor cache maintains information for each on-link neighbor, including the IP address and the associated link-layer address.

PARAMETERS

-AddressFamily <AddressFamily[]>

Specifies an array of IP address families. The cmdlet removes the neighbor cache entries that belong to the IP address families you specify. The acceptable values for this parameter are:

- IPv4

- IPv6

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

-AssociatedIPInterface <CimInstance>

Specifies an IP interface as a CIM object. The cmdlet removes neighbor cache entries that belong to this interface. To obtain an IP interface, use the

Get-NetIPInterface cmdlet.

Required?	false
Position?	named
Default value	None
Accept pipeline input?	True (ByValue)
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

-Confirm [<SwitchParameter>]

Prompts you for confirmation before running the cmdlet.

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

-IPAddress <String[]>

Specifies an array of IP addresses. The cmdlet removes neighbor cache entries that have the IP addresses you specify.

Required? false
Position? 0
Default value None
Accept pipeline input? False
Accept wildcard characters? false

`-IncludeAllCompartments [<SwitchParameter>]`

Indicates that the cmdlet includes neighbor cache entries from all configured network compartments. If you do not specify this parameter, the cmdlet removes only neighbor cache entries in the default network compartment.

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

`-InputObject <CimInstance[]>`

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

Required? true
Position? named
Default value None
Accept pipeline input? True (ByValue)
Accept wildcard characters? false

`-InterfaceAlias <String[]>`

Specifies an array of aliases of network interfaces. The cmdlet removes neighbor cache entries for the network interfaces that have the aliases you specify.

Required? false
Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-InterfaceIndex <UInt32[]>

Specifies an array of indexes of network interfaces. The cmdlet removes neighbor cache entries for the network interfaces located at the indexes you specify.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-LinkLayerAddress <String[]>

Specifies an array of link-layer addresses of the neighbor cache entry. The cmdlet removes the neighbor cache entries that have the link-layer addresses you specify.

The link-layer address is also called the media access control (MAC) address. A link-layer address that uses IPv4 address syntax is a tunnel technology that

encapsulates packets over an IPv4 tunnel, such as Intra-Site Automatic Tunnel Addressing Protocol (ISATAP) or Teredo. A link-layer address of all zeroes indicates

that the neighbor is unreachable and the neighbor cache entry does not have a link-layer address entry. An empty link-layer address indicates that the link layer

does not use link-layer addresses, such as on a loopback interface.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

`-PassThru [<SwitchParameter>]`

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

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

`-PolicyStore <String>`

Specifies a PolicyStore value. The cmdlet removes the neighbor cache entries that have the PolicyStore value you specify. The acceptable values for this parameter are:

- ActiveStore: The IP address information is valid.
- PersistentStore: The computer saves IP address information across restarts.

When the computer restarts, it copies the saved settings to the ActiveStore.

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

`-State <State[]>`

Specifies an array of states of neighbor cache entries. The cmdlet removes the neighbor cache entries that have the states you specify. The neighbor cache contains information maintained by Neighbor Unreachability Detection. Neighbor Unreachability Detection for IPv4 tracks the reachable state of IPv4 nodes in the

IPv4 route cache. The acceptable values for this parameter are:

- Unreachable. The IP address is unreachable. - Incomplete. Address resolution is in progress and Neighbor Unreachability Detection has not determined the

link-layer address of the neighbor. - Probe. The neighbor is no longer known to be reachable, and Neighbor Unreachability Detection is sending unicast Neighbor

Solicitation probes to verify reachability. - Delay. The neighbor is no longer known to be reachable, and traffic was recently sent to the neighbor. Neighbor

Unreachability Detection does not probe the neighbor immediately. Neighbor Unreachability Detection delays sending probes for a short time so that the upper

layer protocols can provide reachability confirmation. - Stale. The neighbor is no longer known to be reachable. and Until traffic is sent to the neighbor,

Neighbor Unreachability Detection makes no attempt to verify its reachability. - Reachable. The neighbor is known to have been reachable recently, within the

last minute. - Permanent. The neighbor is statically provisioned and will not expire unless you remove it through configuration. - Maximum. A maximum value for

testing purposes.

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

-WhatIf [<SwitchParameter>]

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

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

<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>).

INPUTS

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

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.

OUTPUTS

None

NOTES

----- Example 1: Remove unreachable neighbor cache entries -----

```
PS C:\>Remove-NetNeighbor -State Unreachable
```

This command removes all neighbor cache entries that are unreachable.

Example 2: Remove neighbor cache entries associated with a network adapter

```
PS C:\>Get-NetAdapter | Where-Object -FilterScript {$_.LinkSpeed -Eq "100 Mbps"} | Remove-NetNeighbor  
-AddressFamily IPv4
```

This command gets a NetAdapter object that contains network adapters, and then passes the NetAdapter object to the Where-Object cmdlet by using the pipeline operator.

The Where-Object cmdlet filters the network adapters that have a link speed of 100 Mbps, and then passes the network NetAdapter object to the Remove-NetNeighbor

cmdlet. The Remove-NetNeighbor cmdlet removes all neighbor cache entries that have IPv4 addresses and are associated with a network adapter that has a link speed of 100 Mbps.

RELATED LINKS

Online

Version:

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

Get-NetAdapter

Get-NetNeighbor

New-NetNeighbor

Set-NetNeighbor