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

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

NAME

    Set-NetNeighbor

SYNOPSIS

    Modifies a neighbor cache entry.

SYNTAX

    Set-NetNeighbor [[-IPAddress] <String[]>] [-AddressFamily {IPv4 | IPv6}] [-AsJob] [-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>]

    Set-NetNeighbor [-AsJob] [-CimSession <CimSession[]>] [-Confirm] -InputObject <CimInstance[]> [-LinkLayerAddress
<String>] [-PassThru] [-ThrottleLimit <Int32>]

   [-WhatIf] [<CommonParameters>]

DESCRIPTION

The Set-NetNeighbor cmdlet modifies a neighbor cache entry. The neighbor cache maintains information for each on-link neighbor, including the IP address and the

 associated link-layer address. You can modify only neighbor cache entries that are in a permanent state on interfaces that have link-layer addresses. Use this cmdlet

to modify the link-layer address and policy store setting of a neighbor cache entry.

PARAMETERS

  -AddressFamily <AddressFamily[]>

    Specifies an array of IP address families. The cmdlet modifies the neighbor cache entries that belong to the IP address families you specify. If you do not

specify this parameter, the cmdlet automatically generates the address families of the neighbor cache entries. 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

-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 modifies 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 modifies 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 modifies 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 modifies 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 the link-layer address of the neighbor cache entry. The cmdlet modifies the link-layer address of the neighbor cache entry 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 modifies the PolicyStore setting for the neighbor cache entry to the 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.

Specify ActiveStore only.

If you do not specify this parameter, the default entries are created in both the ActiveStore and the PersistentStore.

Required?   false

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

-State <State[]>

Specifies an array of states of the neighbor cache entry. The cmdlet modifies the neighbor cache entries that have the states you specify. You can modify only

neighbor cache entries that are in a permanent state. The acceptable values for this parameter are:

- Permanent. The neighbor is statically provisioned and will not expire unless you remove it.

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 PowerShellr 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: Set the link-layer address for a neighbor cache entry

PS C:\>Set-NetNeighbor -InterfaceIndex 12 -IPAddress "192.168.0.5" -LinkLayerAddress "00-00-12-00-00-ff"

This command sets the link-layer address for the neighbor cache entry that has the IP address 192.168.0.5 and the interface index value of 12.

Example 2: Set the link-layer address for a neighbor cache entry by using an input object

PS C:\>Get-NetNeighbor -InterfaceIndex 12 -IPAddress "192.168.0.5" | Set-NetNeighbor -LinkLayerAddress "00-00-12-00-00-ff"

This command gets the NetNeighbor object that has the IP address 192.168.0.5 and the interface index value of 12. The command passes the object to the Set-NetNeighbor

cmdlet by using the pipeline operator. Set-NetNeighbor sets the link-layer address for the neighbor cache entry to 00-00-12-00-00-ff.

RELATED LINKS

Online Version:

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

Get-NetNeighbor

New-NetNeighbor

Remove-NetNeighbor