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## PowerShell Get-Help on command 'Set-NetIPInterface'

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

NAME

Set-NetIPInterface

SYNOPSIS

Modifies an IP interface.

SYNTAX

Set-NetIPInterface [[-InterfaceAlias] <String[]>] [-AddressFamily {IPv4 |

IPv6}] [-AdvertiseDefaultRoute {Disabled | Enabled}]

[-AdvertisedRouterLifetime <TimeSpan>] [-Advertising {Disabled | Enabled}]

[-AsJob] [-AutomaticMetric {Disabled | Enabled}] [-BaseReachableTimeMs

<UInt32>] [-CimSession <CimSession[]>] [-ClampMss {Disabled | Enabled}]

[-CompartmentId <UInt32[]>] [-Confirm] [-CurrentHopLimit <UInt32>]

[-DadRetransmitTimeMs <UInt32>] [-DadTransmits <UInt32>] [-Dhcp {Disabled |

Enabled}] [-DirectedMacWolPattern {Disabled | Enabled}] [-EcnMarking {Disabled

| UseEct1 | UseEct0 | AppDecide}] [-ForceArpNdWolPattern {Disabled | Enabled}]

[-Forwarding {Disabled | Enabled}] [-IgnoreDefaultRoutes {Disabled | Enabled}]

[-IncludeAllCompartments] [-InterfaceIndex <UInt32[]>] [-InterfaceMetric

<UInt32>] [-ManagedAddressConfiguration {Disabled | Enabled}]

[-NeighborDiscoverySupported {No | Yes}] [-NeighborUnreachabilityDetection

{Disabled | Enabled}] [-NlMtuBytes <UInt32>] [-OtherStatefulConfiguration
{Disabled | Enabled}] [-PassThru] [-PolicyStore <String>] [-ReachableTime
<UInt32[]>] [-RetransmitTimeMs <UInt32>] [-RouterDiscovery {Disabled | Enabled
| ControlledByDHCP}] [-ThrottleLimit <Int32>] [-WeakHostReceive {Disabled |
Enabled}] [-WeakHostSend {Disabled | Enabled}] [-WhatIf] [<CommonParameters>]


Set-NetIPInterface [-AdvertiseDefaultRoute {Disabled | Enabled}]
[-AdvertisedRouterLifetime <TimeSpan>] [-Advertising {Disabled | Enabled}]
[-AsJob] [-AutomaticMetric {Disabled | Enabled}] [-BaseReachableTimeMs
<UInt32>] [-CimSession <CimSession[]>] [-ClampMss {Disabled | Enabled}]
[-Confirm] [-CurrentHopLimit <UInt32>] [-DadRetransmitTimeMs <UInt32>]
[-DadTransmits <UInt32>] [-Dhcp {Disabled | Enabled}] [-DirectedMacWolPattern
{Disabled | Enabled}] [-EcnMarking {Disabled | UseEct1 | UseEct0 | AppDecide}]
[-ForceArpNdWolPattern {Disabled | Enabled}] [-Forwarding {Disabled |
Enabled}] [-IgnoreDefaultRoutes {Disabled | Enabled}] -InputObject
<CimInstance[]> [-InterfaceMetric <UInt32>] [-ManagedAddressConfiguration
{Disabled | Enabled}] [-NeighborUnreachabilityDetection {Disabled | Enabled}]
[-NlMtuBytes <UInt32>] [-OtherStatefulConfiguration {Disabled | Enabled}]
[-PassThru] [-RetransmitTimeMs <UInt32>] [-RouterDiscovery {Disabled | Enabled
| ControlledByDHCP}] [-ThrottleLimit <Int32>] [-WeakHostReceive {Disabled |
Enabled}] [-WeakHostSend {Disabled | Enabled}] [-WhatIf] [<CommonParameters>]


DESCRIPTION

The Set-NetIPInterface cmdlet modifies an IP interface, including Dynamic Host
Configuration Protocol (DHCP), IPv6 neighbor discovery settings, router
settings and Wake On LAN (WOL) settings.


If you do not specify any parameters, this cmdlet sets all of the IP interface
properties on the computer, including virtual interfaces and loopback
interfaces.

PARAMETERS

-AddressFamily <AddressFamily[]>

Specifies an array of IP address families. The cmdlet modifies the IP

interface that matches the families.  The acceptable values for this

parameter are:


-- IPv4  -- IPv6


-AdvertiseDefaultRoute <AdvertiseDefaultRoute>

Specifies the default router advertisement for an interface. This

parameter value indicates whether the IP interface should advertise itself

as a default router regardless of whether the node has a default route

itself. This parameter is valid only for advertising interfaces. The

acceptable values for this parameter are:


-- Enabled   -- Disabled


-AdvertisedRouterLifetime <TimeSpan>

Specifies a lifetime, as a TimeSpan object, for a default route. This

parameter value indicates the lifetime of default routes when advertising

routes on the IP interface. The default value is 1800. This parameter is

valid only for advertising interfaces. To obtain a TimeSpan object, use

the New-TimeSpan cmdlet.


-Advertising <Advertising>

Specifies the router advertisement value for the IP interface. The

acceptable values for this parameter are:


-- Enabled  -- Disabled


The default value is Disabled.


-AsJob [<SwitchParameter>]

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

-AutomaticMetric <AutomaticMetric>

Specifies the value for automatic metric calculation. Automatic metric determines whether TCP/IP automatically calculates a value for an interface metric that is based on the speed of the interface. The fastest interface has the lowest interface metric value. The acceptable values for this parameter are:

-- Enabled  -- Disabled

-BaseReachableTimeMs <UInt32>

Specifies the base value for random reachable time, in milliseconds. For more information, see RFC 2461 (https://go.microsoft.com/fwlink/p/?LinkId=84044). The default value is 30.

-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.

-ClampMss <ClampMss>

Specifies the MSS clamping value for the IP interface. This value determines if this IP interface clamps MSS on the forwarded TCP packets that are sent out of this interface. The acceptable values for this parameter are:

- Enabled

      - Disabled

-CompartmentId <UInt32[]>

    Specifies an array of identifiers for network compartments in the protocol

    stack. By default, the cmdlet only sets Net IP interfaces in the default

    compartment. If you specify a value, the cmdlet sets any matching

    NetIPInterface in all compartments in this field.

-Confirm [<SwitchParameter>]

    Prompts you for confirmation before running the cmdlet.

-CurrentHopLimit <UInt32>

    Specifies a hop limit. This parameter is the value that the IP interface

    writes in the hop limit field for IPv6, or the Time To Live (TTL) field

    for IPv4, in all outbound traffic. When forwarding a packet, routers

    decrement the hop limit, or TTL, by 1, and discard the packet when the hop

    limit reaches 0. The default is defined as DefaultHopLimit in the

    NetIPv4Protocol and NetIPv6Protocol objects. When this parameter value is

    set to 0, it uses this default.

-DadRetransmitTimeMs <UInt32>

    Specifies a value for the time interval between neighbor solicitation

    messages.

-DadTransmits <UInt32>

    Specifies a value for the number of consecutive messages sent while the

    network driver performs duplicate address detection.

-Dhcp <Dhcp>

    Specifies the Dynamic Host Configuration Protocol (DHCP) value for an IP

    interface. This setting is persistent across reboots and only stored in

    the active policy store.  Changes to the persistent store will have no

    effect.  The acceptable values for this parameter are:

-- Enabled  -- Disabled

The default value is Enabled.

-DirectedMacWolPattern <DirectedMacWolPattern>

Specifies the wake-up packet value for an IP interface. This parameter

value determines if an IP interface is configured to wake up a computer

with directed MAC packet patterns. The acceptable values for this

parameter are:

-- Enabled

-- Disabled

The default value is Disabled.

-EcnMarking <EcnMarking>

Specifies the value for Explicit Congestion Notification (ECN) marking.

This parameter value controls the specific ECN marking in the ECN field of

the IP header. The acceptable values for this parameter are:

-- AppDecide. Allow an application or higher layer protocol, such as TCP,

to decide how to apply ECN marking. In order for an application to fully

control ECN capability value in the Network TCP setting must also be set

to Enabled.   -- Disabled. Disable the ECN marking on the IP interface.

-- UseEct0. Mark all of the egress IP packets on the IP interface with the

Ect0 bit set.   -- UseEct1. Mark all of the egress IP packets on the IP

interface with the Ect1 bit set.

The default value is AppDecide.

-ForceArpNdWolPattern <ForceArpNdWolPattern>

Specifies the Wake On LAN (WOL) value for the IP interface. This parameter

value determines if an IP interface is configured to wake up a computer

with Address Resolution Protocol (ARP) or Neighbor Discovery (ND) packet

patterns. The default value is Disabled. The acceptable values for this

parameter are:


-- Enabled  -- Disabled


-Forwarding <Forwarding>

Specifies the packet forwarding value for the IP interface. This value

determines if this IP interface forwards packets that arrive on this

interface to other interfaces. The acceptable values for this parameter

are:


-- Enabled  -- Disabled


-IgnoreDefaultRoutes <IgnoreDefaultRoutes>

Specifies a value for Default Route advertisements. If you enable this

setting, default routes will not be dynamically added to the routing

table. The acceptable values for this parameter are:


-- Enabled  -- Disabled


The default value is Disabled.


-IncludeAllCompartments [<SwitchParameter>]

Indicates that the cmdlet includes all non-default compartments.


-InputObject <CimInstance[]>

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

-InterfaceAlias <String[]>

   Specifies an array of aliases of network interfaces. The cmdlet modifies

   IP interfaces that match the aliases.


-InterfaceIndex <UInt32[]>

   Specifies an array of indexes of network interfaces. The cmdlet modifies

   IP interfaces that match the indexes.


-InterfaceMetric <UInt32>

   Specifies a metric for an IP interface. When routes are chosen, the

   overall metric used to determine the preference is the sum of the route

   metric and the interface metric. Typically, the interface metric gives

   preference to a particular interface, such as using wired if both wired

   and wireless are available. This parameter value uses the value generated

   by AutomaticMetric by default. If this parameter value is set, then the

   AutomaticMetric parameter is automatically disabled.


-ManagedAddressConfiguration <ManagedAddressConfiguration>

   Specifies the value for managed address configuration. This parameter

   determines if an IP interface uses a stateful protocol, such as DHCP, to

   obtain an address. Setting this parameter has no effect on an interface

   that has router discovery enabled and advertising disabled. In that case,

   the parameter is controlled by router discovery. The acceptable values for

   this parameter are:


   -- Enabled  -- Disabled


-NeighborDiscoverySupported <NeighborDiscoverySupported[]>

   Specifies an array of neighbor discovery values for the IP interface. The

   acceptable values for this parameter are:


   -- Enabled  -- Disabled

-NeighborUnreachabilityDetection <NeighborUnreachabilityDetection>

    Specifies the value for Neighbor Unreachability Detection (NUD). Use this

    parameter to determine when a neighbor is no longer reachable. For more

    information, see RFC 2461

    (https://go.microsoft.com/fwlink/p/?LinkId=84044). For ActiveStore, you

    can modify the NUD from Disabled to Enabled, but modifying NUD from

    Enabled to Disabled for ActiveStore fails with an invalid parameter. For

    the PersistentStore, you can modify the NUD to either Enabled or Disabled,

    but you will have to restart the interface for the setting to take effect.

    The acceptable values for this parameter are:

    -- Enabled  -- Disabled

-NlMtuBytes <UInt32>

    Specifies the network layer Maximum Transmission Unit (MTU) value, in

    bytes, for an IP interface. 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. If this parameter is set to 0, then it will remain unchanged and

    maintain its current value. The IP interface will not transmit packets

    larger than the maximum value.

-OtherStatefulConfiguration <OtherStatefulConfiguration>

    Specifies the value for configuration other than addresses. This parameter

    determines if an IP interface uses a stateful protocol, such as DHCP, to

    obtain configuration information other than addresses. This parameter

    setting has no effect on an interface that has router discovery enabled

    and advertising disabled. In that case, the parameter is controlled by

    router discovery. The acceptable values for this parameter are:

    -- Enabled  -- Disabled

-PassThru [<SwitchParameter>]

   Returns an object representing the item with which you are working. By

   default, this cmdlet does not generate any output.


-PolicyStore <String>

   Specifies a PolicyStore value. 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.


   The default value is ActiveStore. Specify ActiveStore only.

   If you do not specify this parameter, the default entries are created in

   both the ActiveStore and the PersistentStore.



-ReachableTime <UInt32[]>

   Specifies an array of reachable time values. This parameter is the time,

   in milliseconds, that a node assumes that a neighbor is reachable after

   having received a reachability confirmation. This parameter works with the

   NeighborUnreachabilityDetection parameter.


-RetransmitTimeMs <UInt32>

   Specifies a value for timeout and retransmission, in milliseconds, for

   Neighbor Solicitation messages. For more information, see RetransTimer in

   RFC 2461 (https://go.microsoft.com/fwlink/p/?LinkId=84044). By default,

   the value is set to 1000.


-RouterDiscovery <RouterDiscovery>

   Specifies the value for router discovery for an IP interface,  The

   acceptable values for this parameter are:

-- ControlledByDHCP. DHCP determines if the IP Interface can be used by
the computer to locate routers that reside on an attached link.   --
Disabled: IP Interface will not be used by the computer to locate routers
that reside on an attached link.   -- Enabled. IP Interface can be used by
the computer to locate routers that reside on an attached link.


By default, the value of this parameter is ControlledByDHCP for IPv4 and
Enabled for IPv6. If the value of this parameter is enabled, an IP host
can locate routers that reside on an attached link.


-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.


-WeakHostReceive <WeakHostReceive>

Specifies the receive value for a weak host model. By default, interface
properties set this parameter to disabled. If this parameter is enabled,
an IP host can receive IP packets on an interface that is not assigned the
destination IP address of the packet being received. The acceptable values
for this parameter are:


-- Enabled   -- Disabled


-WeakHostSend <WeakHostSend>

Specifies the send value for a weak host model. By default, interface
properties set this parameter to disabled. If this parameter is enabled,
an IP host can send IP packets on an interface that is not assigned the
destination IP address of the packet being sent.The acceptable values for

this parameter are:

-- Enabled  -- Disabled

-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: Modify an interface by the index value ------

PS C:\>Set-NetIPInterface -InterfaceIndex 12 -Dhcp Disabled

This command modifies an IP interface object by using the interface index

value of 12. The command also disables DHCP on the interface.

----------- Example 2: Modify the interface metrics -----------

PS C:\>Get-NetAdapter | Where-Object -FilterScript {$_.LinkSpeed -Eq "100

Mbps"} | Set-NetIPInterface -InterfaceMetric 21

This command modifies all of the network adapters on the computer with a link

speed of 100 Mbps and sets the interface metric on them to 21.

REMARKS

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

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

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

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