Windows PowerShell Get-Help on Cmdlet 'New-NetIPAddress'

PS:\>Get-HELP New-NetIPAddress -Full

NAME

New-NetIPAddress

SYNOPSIS

Creates and configures an IP address.

SYNTAX

New-NetIPAddress [-IPAddress] <String> [-AddressFamily {IPv4 | IPv6}] [-AsJob] [-CimSession <CimSession[]>]
[-Confirm] [-DefaultGateway <String>] -InterfaceAlias

<String> [-PolicyStore <String>] [-PreferredLifetime <TimeSpan>] [-PrefixLength <Byte>] [-SkipAsSource <Boolean>]
[-ThrottleLimit <Int32>] [-Type {Unicast | Anycast}]

[-ValidLifetime <TimeSpan>] [-WhatIf] [<CommonParameters>]

New-NetIPAddress [-IPAddress] <String> [-AddressFamily {IPv4 | IPv6}] [-AsJob] [-CimSession <CimSession[]>]
[-Confirm] [-DefaultGateway <String>] -InterfaceIndex

<UInt32> [-PolicyStore <String>] [-PreferredLifetime <TimeSpan>] [-PrefixLength <Byte>] [-SkipAsSource <Boolean>]
[-ThrottleLimit <Int32>] [-Type {Unicast | Anycast}]

[-ValidLifetime <TimeSpan>] [-WhatIf] [<CommonParameters>]

DESCRIPTION

The New-NetIPAddress cmdlet creates and configures an IP address. To create a specific IP address object, specify either an IPv4 address or an IPv6 address, and an

interface index or interface alias. We recommend that you define the prefix length, also known as a subnet mask, and a default gateway.

If you run this cmdlet to add an IP address to an interface on which DHCP is already enabled, then DHCP is automatically disabled. If Duplicate Address Detection

(DAD) is enabled on the interface, the new IP address is not usable until DAD successfully finishes, which confirms the uniqueness of the IP address on the link.

PARAMETERS

-AddressFamily <AddressFamily>

Specifies an IP address family. The cmdlet creates an IP address for the family. If you do not specify this parameter, the property is automatically generated.

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   *Page 2/9*

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

  -DefaultGateway <String>

     Specifies the IPv4 address or IPv6 address of the default gateway for the host. Default gateways provide a default

route for TCP/IP hosts to use when

    communicating with other hosts on remote networks.

    Required?   false

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

-IPAddress <String>

Specifies the IPv4 or IPv6 address to create.

Required?   true

Position?   0

Default value   None

Accept pipeline input?   True (ByPropertyName)

Accept wildcard characters? false

-InterfaceAlias <String>

Specifies an alias of a network interface. The cmdlet creates an IP address for the alias.

Required?   true

Position?   named

Default value   None

Accept pipeline input?   True (ByPropertyName)

Accept wildcard characters? false

-InterfaceIndex <UInt32>

Specifies an index of a network interface. The cmdlet creates an IP address for the index.

Required?   true

Position?   named

Default value   None

Accept pipeline input?   True (ByPropertyName)

Accept wildcard characters? false

-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.

Required?   false

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

-PreferredLifetime <TimeSpan>

Specifies a preferred lifetime, as a TimeSpan object, for an IP address. To obtain a TimeSpan object, use the New-TimeSpan cmdlet.

Required?   false

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

-PrefixLength <Byte>

Specifies a prefix length. This parameter defines the local subnet size, and is also known as a subnet mask.

Required?   false

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

-SkipAsSource <Boolean>

Indicates whether an address is a primary IP address. This parameter identifies the primary IP address for outgoing traffic in a multiple IP address scenario. If

this parameter is set to True, the addresses are not used for outgoing traffic and are not registered in DNS.

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

-Type <Type>

Specifies an IP address type. The acceptable values for this parameter are:

-- Unicast -- Anycast

The default value is Unicast.

Required?   false

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

  -ValidLifetime <TimeSpan>

     Specifies a valid lifetime value, as a TimeSpan object, for an IP address. To obtain a TimeSpan object, use the

New-TimeSpan cmdlet.

   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

 None

OUTPUTS

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

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: Add an IPv4 address ----------------

PS C:\>New-NetIPAddress -InterfaceIndex 12 -IPAddress 192.168.0.1 -PrefixLength 24 -DefaultGateway 192.168.0.5
PS C:\>Remove-NetIPAddress -IPAddress 192.168.0.1 -DefaultGateway 192.168.0.5

The first command adds a new IPv4 address to the network interface at index 12. The PrefixLength parameter specifies the subnet mask for the IP address. In this

example, the PrefixLength of 24 equals a subnet mask of 255.255.255.0. When you add an IPv4 address, the address specified for the Default Gateway must be in the

same subnet as the IPv4 address that you add. The second command removes the IPv4 address. To remove the IPv4 address, use the Remove-NetIPAddress cmdlet.

RELATED LINKS

Online   Version:
https://learn.microsoft.com/powershell/module/nettcpip/new-netipaddress?view=windowsserver2022-ps&wt.mc_id=ps-gethe
lp

Get-NetIPAddress

Remove-NetIPAddress

Remove-NetRoute

Set-NetIPAddress