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PowerShell

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PowerShell Get-Help on command 'Set-NetNat'

PS C:\Users\wahid> Get-Help Set-NetNat

NAME

Set-NetNat

SYNOPSIS

Modifies settings for NAT objects.

SYNTAX

```
Set-NetNat [-AsJob] [-CimSession <CimSession[]>] [-Confirm] [-IcmpQueryTimeout  
<UInt32>] -InputObject <CimInstance[]> [-PassThru  
[-TcpEstablishedConnectionTimeout <UInt32>] [-TcpFilteringBehavior  
{EndpointIndependentFiltering | AddressDependentFiltering}]  
[-TcpTransientConnectionTimeout <UInt32>] [-ThrottleLimit <Int32>  
[-UdpFilteringBehavior {EndpointIndependentFiltering |  
AddressDependentFiltering}] [-UdpIdleSessionTimeout <UInt32>  
[-UdpInboundRefresh {False | True}] [-WhatIf] [<CommonParameters>]
```

```
Set-NetNat [-Name] <String[]> [-AsJob] [-CimSession <CimSession[]>] [-Confirm]  
[-IcmpQueryTimeout <UInt32>] [-PassThru] [-TcpEstablishedConnectionTimeout  
<UInt32>] [-TcpFilteringBehavior {EndpointIndependentFiltering |  
AddressDependentFiltering}] [-TcpTransientConnectionTimeout <UInt32>]
```

```
[-ThrottleLimit <Int32>] [-UdpFilteringBehavior {EndpointIndependentFiltering  
| AddressDependentFiltering}] [-UdpIdleSessionTimeout <UInt32>]  
[-UdpInboundRefresh {False | True}] [-WhatIf] [<CommonParameters>]
```

DESCRIPTION

The Set-NetNat cmdlet modifies settings for Network Address Translation (NAT) objects. NAT modifies IP address and port information in packet headers. Use this cmdlet to modify the following:

- Time-out values for ICMP and UDP sessions and TCP connections.
- Behavior of TCP and UDP filtering.
- Whether packets from external networks refresh UDP sessions.

Specify NAT objects to modify by using the Name parameter or by using the Get-NetNat cmdlet. Use the New-NetNat cmdlet to create NAT objects.

PARAMETERS

-AsJob [<SwitchParameter>]

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

The cmdlet immediately returns an object that represents the job and then displays the command prompt. You can continue to work in the session while the job completes. To manage the job, use the `*-Job` cmdlets. To get the job results, use the Receive-Job (<https://go.microsoft.com/fwlink/?LinkID=113372>)cmdlet.

For more information about Windows PowerShell background jobs, see `about_Jobs` (<https://go.microsoft.com/fwlink/?LinkID=113251>).

`-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.

`-Confirm [<SwitchParameter>]`

Prompts you for confirmation before running the cmdlet.

`-IcmpQueryTimeout <UInt32>`

Specifies the length of the time-out period, in seconds, for an ICMP query session.

`-InputObject <CimInstance[]>`

Specifies the input to this cmdlet. You can use this parameter, or you can pipe the input to this cmdlet.

`-Name <String[]>`

Specifies an array of names of NAT objects.

`-PassThru [<SwitchParameter>]`

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

`-TcpEstablishedConnectionTimeout <UInt32>`

Specifies the length of the time-out period, in seconds, for established TCP connections. Use the `TcpTransientConnectionTimeout` parameter to modify the time-out period for transient TCP connections.

-TcpFilteringBehavior <FilteringBehaviorType>

Specifies filtering behavior for TCP connections. The acceptable values for this parameter are:

- EndpointIndependentFiltering

- AddressDependentFiltering

The default value is EndpointIndependentFiltering.

-TcpTransientConnectionTimeout <UInt32>

Specifies the length of the time-out period, in seconds, for transient TCP connections. Use the TcpEstablishedConnectionTimeout parameter to modify the time-out period for established TCP connections.

-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.

-UdpFilteringBehavior <FilteringBehaviorType>

Specifies filtering behavior for UDP sessions. The acceptable values for this parameter are:

- EndpointIndependentFiltering

- AddressDependentFiltering

The default value is EndpointIndependentFiltering.

`-UdpIdleSessionTimeout <UInt32>`

Specifies the length of the time-out period, in seconds, for a UDP session.

`-UdpInboundRefresh <Boolean>`

Indicates whether a packet from the external network refreshes an existing UDP session. If you specify a value of `$True` for this parameter, either an inbound packet or an outbound packet refreshes an existing UDP session. If you specify a value of `$False`, only an outbound packet refreshes a UDP session. The default value is `$False`.

`-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 settings for a NAT object -----

```
PS C:\> Set-NetNat -Name "TSQATenant" -TcpFilteringBehavior  
AddressDependentFiltering -UdpInboundRefresh $True
```

This command modifies a NAT object named `TSQATenant`. The command specifies a value of `$True` for the `UdpInboundRefresh` parameter, and, therefore, NAT refreshes UDP sessions for both inbound and outbound packets. The command changes TCP filtering behavior to address dependent filtering.

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

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

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

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