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

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

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.

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

-IcmpQueryTimeout <UInt32>

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

Required? false

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

-InputObject <CimInstance[]>

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

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

-Name <String[]>

Specifies an array of names of NAT objects.

Required? true
Position? 0
Default value None
Accept pipeline input? True (ByPropertyName)
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

-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.

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

-TcpFilteringBehavior <FilteringBehaviorType>

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

- EndpointIndependentFiltering
- AddressDependentFiltering

The default value is EndpointIndependentFiltering.

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

-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.

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

-UdpFilteringBehavior <FilteringBehaviorType>

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

- EndpointIndependentFiltering

- AddressDependentFiltering

The default value is EndpointIndependentFiltering.

Required? false
Position? named
Default value None

Accept pipeline input? False

Accept wildcard characters? false

-UdpIdleSessionTimeout <UInt32>

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

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-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.

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) (<https://go.microsoft.com/fwlink/?LinkID=113216>).

INPUTS

None

OUTPUTS

Microsoft.Management.Infrastructure.CimInstance#ROOT/StandardCimv2/MSFT_NetNat

NOTES

----- 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.

RELATED LINKS

https://learn.microsoft.com/powershell/module/netnat/set-netnat?view=windowsserver2022-ps&wt.mc_id=ps-gethelp

Get-NetNat

New-NetNat

Remove-NetNat