Windows PowerShell Get-Help on Cmdlet 'Add-NetNatStaticMapping'

PS:\>Get-HELP Add-NetNatStaticMapping -Full

NAME

  Add-NetNatStaticMapping

SYNOPSIS

  Adds a static mapping to a NAT instance.

SYNTAX

  Add-NetNatStaticMapping [-NatName] <String> [-AsJob] [-CimSession <CimSession[]>] [-Confirm] -ExternalIPAddress <String> -ExternalPort <UInt16> -InternalIPAddress

          <String> [-InternalPort <UInt16>] [-InternalRoutingDomainId <String>] -Protocol {TCP | UDP} [-RemoteExternalIPAddressPrefix <String>] [-ThrottleLimit <Int32>]

  [-WhatIf] [<CommonParameters>]

DESCRIPTION

  The Add-NetNatStaticMapping cmdlet adds a static mapping to a network address translation (NAT) instance. A static

mapping enables an incoming connection from an

  external network to access a host on an internal network through the NAT.

You can use NAT to share a connection to the public Internet through a single interface with a single public IP address. The computers on the private network use

private, non-routable addresses. NAT maps the private addresses to the public address.

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).

      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

-ExternalIPAddress <String>

Specifies the external IP address to which an incoming connection is addressed. This parameter specifies the destination IP address in the incoming packet.

Required?   true

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

-ExternalPort <UInt16>

Specifies the external port to which an incoming connection is sent. This parameter specifies the destination port in the incoming TCP or UDP packets.

Required?   true

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

-InternalIPAddress <String>

Specifies the IP address to which the packets from a remote machine in the external network are addressed.

Required?   true

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

-InternalPort <UInt16>

Specifies the internal port to which the packets from a remote machine in the external network are sent. If you do not specify this parameter, NAT uses the port

that you specify for the ExternalPort parameter for the internal port.

Required?   false

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

-InternalRoutingDomainId <String>

Specifies the GUID of the routing domain of the internal interface.

Required?   false

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

-NatName <String>

Specifies the name of the NAT instance.

Required?   true

Position?   0

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

-Protocol <Protocol>

Specifies the network protocol of the client computer in the internal network. The acceptable values for this parameter are:

- TCP

- UDP

Required?   true

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

-RemoteExternalIPAddressPrefix <String>

Specifies the IP address prefix of the remote computer on the external network.

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

None

OUTPUTS

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

NOTES

------ Example 1: Add a static mapping to a NAT instance ------

   PS C:\> Add-NetNatStaticMapping -ExternalIPAddress "a.b.c.0/24" -ExternalPort 80 -InternalIPAddress "192.0.02.179"
-InternalPort 8080 -InternalRoutingDomainId
   "{12345678-0000-0000-0000-123456789012}"

This command adds a static mapping to a NAT instance. The command specifies that NAT maps the external IP address
to the internal IP address 192.0.02.179. The command
   specifies that the NAT maps the destination port 80 of the Internet resource to the source application port 8080. The
command specifies that the tenant compartment
    that has the ID TSQATenant contains the internal address and internal port. This example uses the placeholder
a.b.c.0/24 to represent a public Internet address prefix.

RELATED LINKS

                                                            Online   Version:
https://learn.microsoft.com/powershell/module/netnat/add-netnatstaticmapping?view=windowsserver2022-ps&wt.mc_id=ps-
gethelp
   Get-NetNatStaticMapping
   Remove-NetNatStaticMapping