Windows PowerShell Get-Help on Cmdlet 'Get-NetAdapterRsc'

PS:\>Get-HELP Get-NetAdapterRsc -Full

NAME

Get-NetAdapterRsc

SYNOPSIS

Gets network adapters that support RSC.

SYNTAX

Get-NetAdapterRsc [-AsJob] [-CimSession <CimSession[]>] [-IPv4FailureReason {NoFailure | NicPropertyDisabled | WFPCompatibility | NDISCompatibility |

ForwardingEnabled | NetOffloadGlobalDisabled | Capability | Unknown}] [-IPv4OperationalState <Boolean[]>] [-IPv6FailureReason {NoFailure | NicPropertyDisabled |

WFPCompatibility | NDISCompatibility | ForwardingEnabled | NetOffloadGlobalDisabled | Capability | Unknown}] [-IPv6OperationalState <Boolean[]>] [-IncludeHidden]

-InterfaceDescription <String[]> [-ThrottleLimit <Int32>] [<CommonParameters>]

Get-NetAdapterRsc [[-Name] <String[]>] [-AsJob] [-CimSession <CimSession[]>] [-IPv4FailureReason {NoFailure | NicPropertyDisabled | WFPCompatibility |

NDISCompatibility | ForwardingEnabled | NetOffloadGlobalDisabled | Capability | Unknown}] [-IPv4OperationalState <Boolean[]>] [-IPv6FailureReason {NoFailure |

NicPropertyDisabled | WFPCompatibility | NDISCompatibility | ForwardingEnabled | NetOffloadGlobalDisabled | Capability | Unknown}] [-IPv6OperationalState <Boolean[]>]

[-IncludeHidden] [-ThrottleLimit <Int32>] [<CommonParameters>]

DESCRIPTION

The Get-NetAdapterRsc cmdlet gets network adapters that support receive segment coalescing (RSC). RSC takes multiple packets received within the same interrupt period

and combines the packets into a single large package to be processed by the network stack. This reduces the processing overhead for incoming packets and reduces the

number of processor cycles that are used, leading to better scalability.

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 PowerShellr

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

-IPv4FailureReason <FailureReason[]>

Specifies the reason that RSC may not be working on IPv4 traffic.

The acceptable values for this parameter are:

- NoFailure

- NicPropertyDisabled

- WFPCompatibility

- NDISCompatibility

- ForwardingEnabled

- NetOffloadGlobalDisabled

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

-IPv4OperationalState <Boolean[]>

Specifies the state of the TCP/IP protocol driver for RSC. See the IPv4FailureReason parameter value for more information.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-IPv6FailureReason <FailureReason[]>

Returns the reason that of RSC may not be working on IPv6 traffic.

The acceptable values for this parameter are:

- NoFailure

- NicPropertyDisabled

- WFPCompatibility

- NDISCompatibility

- ForwardingEnabled

- NetOffloadGlobalDisabled

If RSC is desired, then the following actions can be taken:

- NicPropertyDisabled: Run the Enable-NetAdapterRsc cmdlet to enable RSC on the specified network adapter. - WFPCompatibility: Disable the WFP filters.

- NDISCompatibility: Upgrade to an NDIS 6.30 driver.

- ForwardingEnabled: Disable forwarding.

- NetOffloadGlobalDisabled: Run the Set-NetOffloadGlobalSetting cmdlet with the ReceiveSegmentCoalescing parameter set to Enabled.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-IPv6OperationalState <Boolean[]>

Specifies the state of the TCP/IP protocol driver for RSC. See the IPv6FailureReason parameter value for more information.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-IncludeHidden [<SwitchParameter>]

Indicates that the cmdlet includes both visible and hidden network adapters in the operation. By default only visible network adapters are included. If a wildcard

character is used in identifying a network adapter and this parameter has been specified, then the wildcard string is matched against both hidden and visible

network adapters.

Required? false

Position? named

Default value False

Accept pipeline input? False

Accept wildcard characters? false

-InterfaceDescription <String[]>

Specifies an array of network adapter interface descriptions. For a physical network adapter this is typically the name of the vendor of the network adapter

followed by a part number and description, such as `Contoso 12345 Gigabit Network Device`.

Required? true

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-Name <String[]>

Specifies an array of network adapter names.

Required? false

Position? 0

Default value None

Accept pipeline input? True (ByPropertyName)

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

<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_NetAdapterRscSettingData

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: Get the RSC properties for the specified network adapter

PS C:\> Get-NetAdapterRsc -Name "MyAdapter"

This command gets the RSC properties of the network adapter named MyAdapter.

------- Example 2: Get all RSC capable network adapters -------

PS C:\> Get-NetAdapterRsc -Name "*"

This command gets all of the RSC capable network adapters.

Example 3: Get all RSC capable network adapters that have RSC enabled

```
PS C:\> Get-NetAdapterRsc -Name "*" | Where-Object -FilterScript { $_.Enabled }
```

This command gets all of the RSC capable network adapters that have RSC enabled.

RELATED LINKS

Online Version: https://learn.microsoft.com/powershell/module/netadapter/get-netadapterrsc?view=windowsserver2022-ps&wt.mc_id=ps-gethelp

Disable-NetAdapterRsc

Enable-NetAdapterRsc

Set-NetAdapterRsc