PowerShell Get-Help on command 'Set-NetAdapterPowerManagement'

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

NAME

Set-NetAdapterPowerManagement

SYNOPSIS

Sets the power management properties on the network adapter.

SYNTAX

Set-NetAdapterPowerManagement [-Name] <String[]> [-ArpOffload {Enabled |

Disabled}] [-AsJob] [-CimSession <CimSession[]>] [-Confirm]

[-D0PacketCoalescing {Enabled | Disabled}] [-DeviceSleepOnDisconnect {Enabled

| Disabled}] [-IncludeHidden] [-NSOffload {Enabled | Disabled}] [-NoRestart]

[-PassThru] [-RsnRekeyOffload {Enabled | Disabled}] [-SelectiveSuspend

{Enabled | Disabled}] [-ThrottleLimit <Int32>] [-WakeOnMagicPacket {Enabled |

Disabled}] [-WakeOnPattern {Enabled | Disabled}] [-WhatIf] [<CommonParameters>]

Set-NetAdapterPowerManagement [-ArpOffload {Enabled | Disabled}] [-AsJob]

[-CimSession <CimSession[]>] [-Confirm] [-D0PacketCoalescing {Enabled |

Disabled}] [-DeviceSleepOnDisconnect {Enabled | Disabled}] [-IncludeHidden]

-InterfaceDescription <String[]> [-NSOffload {Enabled | Disabled}]

[-NoRestart] [-PassThru] [-RsnRekeyOffload {Enabled | Disabled}]

[-SelectiveSuspend {Enabled | Disabled}] [-ThrottleLimit <Int32>]

[-WakeOnMagicPacket {Enabled | Disabled}] [-WakeOnPattern {Enabled |

Disabled}] [-WhatIf] [<CommonParameters>]

Set-NetAdapterPowerManagement [-ArpOffload {Enabled | Disabled}] [-AsJob]

[-CimSession <CimSession[]>] [-Confirm] [-D0PacketCoalescing {Enabled |

Disabled}] [-DeviceSleepOnDisconnect {Enabled | Disabled}] -InputObject

<CimInstance[]> [-NSOffload {Enabled | Disabled}] [-NoRestart] [-PassThru]

[-RsnRekeyOffload {Enabled | Disabled}] [-SelectiveSuspend {Enabled |

Disabled}] [-ThrottleLimit <Int32>] [-WakeOnMagicPacket {Enabled | Disabled}]

[-WakeOnPattern {Enabled | Disabled}] [-WhatIf] [<CommonParameters>]

DESCRIPTION

The Set-NetAdapterPowerManagement cmdlet sets the power management properties

on the network adapter. If only setting the enabled state of the properties,

then run the Enable-NetAdapterPowerManagement or

Disable-NetAdapterPowerManagement cmdlet.

PARAMETERS

-ArpOffload <Setting>

Specifies the address resolution protocol (ARP) offload capability of the

network adapter.

The computer, when in low power mode using the ARP offload technology, is

able to offload the responsibility of handling responses for incoming ARP

protocol requests.

-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).

-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.

-D0PacketCoalescing <Setting>

    Specifies the D0 packet coalescing capability of the network adapter.

    This feature enables power saving on the computer by reducing the number

    of receive interrupts. This reduces the number of receive interrupts by

    coalescing random broadcast or multi-cast packets. The processing overhead

    and power consumption is significantly reduced on the computer.

-DeviceSleepOnDisconnect <Setting>

    Specifies the device sleep on disconnect capability of the network adapter.

    This feature allows the device to stand-by in a low power mode when media

    is disconnected and wake when media is connected again.

-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.

-InputObject <CimInstance[]>

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

-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`.

-NSOffload <Setting>

Specifies the neighbor solicitation (NS) offload capability of the network
adapter.

The computer, when in low power mode using the NS offload technology, is
able to offload the handling of responses for incoming NS protocol
requests.

-Name <String[]>

Specifies an array of network adapter names.

-NoRestart [<SwitchParameter>]

Indicates that the cmdlet does not restart the network adapter after
completing the operation. Many advanced properties require restarting the
network adapter before the new settings take effect.

-PassThru [<SwitchParameter>]

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

-RsnRekeyOffload <Setting>

   Specifies the Wi-Fi robust security network (RSN) rekey offload capability

   of the network adapter.

   The computer, when it goes into sleep state, is able to offload the group

   temporal key (GTK) rekeying for wake on wireless LAN (WoWLAN).

-SelectiveSuspend <Setting>

   Specifies the selective suspend capability of the network adapter.

   The network drive interface specification (NDIS) selective suspend

   interface allows NDIS to suspend an idle network adapter by transitioning

   the adapter to a low-power state. This enables the computer to reduce the

   power overhead on the processor and network adapter.

-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.

-WakeOnMagicPacket <Setting>

   Specifies the wake on magic packet capability of the network adapter.

   The magic packet is a broadcast frame containing anywhere within its

   payload 6 bytes of all 255 (FF FF FF FF FF FF in hexadecimal), followed by

   sixteen repetitions of the 48-bit MAC address of the target computer, for

   a total of 102 bytes.

-WakeOnPattern <Setting>

Manages the wake on pattern capability of the network adapter.

A wake pattern refers to network packet filters that determine if incoming network traffic should wake the computer. These patterns can be enabled on the network adapter.

The following wake patterns may be supported by a network adapter: - Wake Pattern.

- Wake on new incoming TCP connection for IPv4 and IPv6 such as TCP SYN IPv4 and TCP SYN IPv6.

- 802.1x re-authentication packets.

- Bitmapped Patterns: Most network adapters can be programmed with bit-mapped pattern filters.

Bitmapped patterns are defined by a bit-map mask and a pattern filter. As a network packet is received, it is masked using the bitmap mask and then compared to the pattern filter. If there is a match, then the network adapter wakes the computer.

-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: Enable device sleep on the disconnect feature on the specified
network adapter

```
PS C:\> Set-NetAdapterPowerManagement -Name "Ethernet"
-DeviceSleepOnDisconnect Enabled
```

This command enables the device sleep on disconnect feature on the network

adapter named Ethernet and restarts the network adapter.

REMARKS

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

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

For technical information, type: "get-help Set-NetAdapterPowerManagement

-full".

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