



## ***Windows PowerShell Get-Help on Cmdlet 'Set-NetAdapterPowerManagement'***

***PS:\>Get-HELP Set-NetAdapterPowerManagement -Full***

### 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.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

#### **-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

**-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.

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

**-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.

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

**-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

**-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

**-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.

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

#### **-Name <String[]>**

Specifies an array of network adapter names.

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

#### **-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.

Required?	false
Position?	named
Default value	False
Accept pipeline input?	False
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

#### -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).

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

#### -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.

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

#### **-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.

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

#### **-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.

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

## PowerManagementSettingData[]

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.

## OUTPUTS

```
Microsoft.Management.Infrastructure.CimInstance#ROOT/StandardCimv2/MSFT_NetAdapter
```

## PowerManagementSettingData

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: 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.

## RELATED LINKS

Online

Version:

[https://learn.microsoft.com/powershell/module/netadapter/set-netadapterpowermanagement?view=windowsserver2022-ps&wt.mc\\_id=ps-gethelp](https://learn.microsoft.com/powershell/module/netadapter/set-netadapterpowermanagement?view=windowsserver2022-ps&wt.mc_id=ps-gethelp)

Disable-NetAdapterPowerManagement

Enable-NetAdapterPowerManagement

Get-NetAdapterPowerManagement

