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PowerShell Get-Help on command 'New-CimSession'

PS C:\Users\wahid> Get-Help New-CimSession

NAME

New-CimSession

SYNOPSIS

Creates a CIM session.

SYNTAX

New-CimSession [[-ComputerName] <System.String[]>] [[-Credential]
<System.Management.Automation.PSCredential>] [-Authentication {Default |
Digest | Negotiate | Basic | Kerberos | NtlmDomain | CredSsp}] [-Name
<System.String>] [-OperationTimeoutSec <System.UInt32>] [-Port
<System.UInt32>] [-SessionOption
<Microsoft.Management.Infrastructure.Options.CimSessionOptions>]
[-SkipTestConnection] [<CommonParameters>]

New-CimSession [[-ComputerName] <System.String[]>] [-CertificateThumbprint
<System.String>] [-Name <System.String>] [-OperationTimeoutSec
<System.UInt32>] [-Port <System.UInt32>] [-SessionOption
<Microsoft.Management.Infrastructure.Options.CimSessionOptions>]
[-SkipTestConnection] [<CommonParameters>]

DESCRIPTION

The `New-CimSession` cmdlet creates a CIM session. A CIM session is a client-side object representing a connection to a local computer or a remote computer. The CIM session contains information about the connection, such as ComputerName , the protocol used, or various identifiers.

This cmdlet returns a CIM session object that can be used by all other CIM cmdlets.

PARAMETERS

-Authentication <Microsoft.Management.Infrastructure.Options.PasswordAuthenticationMechanism>

Specifies the authentication type used for the user's credentials. The acceptable values for this parameter are:

- Default
- Digest
- Negotiate
- Basic
- Kerberos
- NtlmDomain
- CredSsp

You cannot use the NtlmDomain authentication type for connection to the local computer. CredSSP authentication is available only in Windows Vista, Windows Server 2008, and later versions of Windows.
> [!CAUTION] > Credential Security Service Provider (CredSSP) authentication is designed for commands that > require authentication on more than one resource, such as accessing a remote network share. This > mechanism increases the security risk of the remote operation. If the remote computer is > compromised, the credentials that are passed to it can be used to control the network session.

-CertificateThumbprint <System.String>
Specifies the digital public key certificate (X.509) of a user account that has permission to perform this action. Enter the certificate thumbprint of the certificate.

Certificates are used in client certificate-based authentication. They can be mapped only to local user accounts; they do not work with domain accounts.

To get a certificate thumbprint, use the `Get-Item` (../Microsoft.Powershell.Management/Get-Item.md)or `Get-ChildItem` (../Microsoft.Powershell.Management/Get-ChildItem.md)cmdlets in the PowerShell Certificate Provider.

For more information, see about_Certificate_Provider (../Microsoft.PowerShell.Security/About/about_Certificate_Provider.md).

-ComputerName <System.String[]>
Specifies the name of the computer to which to create the CIM session. Specify either a single computer name, or multiple computer names separated by a comma.

If ComputerName is not specified, a CIM session to the local computer is created. You can specify the value for computer name in one of the following formats:

- One or more NetBIOS names

- One or more IP addresses

- One or more fully qualified domain names.

If the computer is in a different domain than the user, you must specify the fully qualified domain name.

-Credential <System.Management.Automation.PSCredential>

Specifies a user account that has permission to perform this action. If Credential is not specified, the current user account is used.

Specify the value for Credential using one of the following formats:

- A user name: "User01"

- A domain name and a user name: "Domain01\User01"

- A user principal name: "User@Domain.com"

- A PSCredential object, such as one returned by the `Get-Credential` (../Microsoft.PowerShell.Security/Get-Credential.md)cmdlet.

When you type a user name, you are prompted for a password.

-Name <System.String>

Specifies a friendly name for the CIM session.

You can use the name to refer to the CIM session when using other cmdlets, such as the `Get-CimSession` (Get-CimSession.md)cmdlet. The name is not required to be unique to the computer or the current session.

-OperationTimeoutSec <System.UInt32>

Duration for which the cmdlet waits for a response from the server.

By default, the value of this parameter is 0, which means that the cmdlet uses the default timeout value for the server.

If the OperationTimeoutSec parameter is set to a value less than the robust connection retry timeout of 3 minutes, network failures that last more than the value of the OperationTimeoutSec parameter are not recoverable, because the operation on the server times out before the client can reconnect.

-Port <System.UInt32>

Specifies the network port on the remote computer that is used for this connection. To connect to a remote computer, the remote computer must be listening on the port that the connection uses. The default ports are 5985 (the WinRM port for HTTP) and 5986 (the WinRM port for HTTPS).

Before using an alternate port, you must configure the WinRM listener on the remote computer to listen at that port. Use the following commands to configure the listener:

`winrm delete winrm/config/listener?Address=*+Transport=HTTP`

`winrm create winrm/config/listener?Address=*+Transport=HTTP @{Port="<port-number>"}`

Do not use the Port parameter unless you must. The port setting in the command applies to all computers or sessions on which the command runs. An alternate port setting might prevent the command from running on all computers.

-SessionOption <Microsoft.Management.Infrastructure.Options.CimSessionOptions>

Sets advanced options for the new CIM session. Enter the name of a CimSessionOption object created using the `New-CimSessionOption` (New-CimSessionOption.md)cmdlet.

-SkipTestConnection <System.Management.Automation.SwitchParameter>

By default, the `New-CimSession` cmdlet establishes a connection with a remote WS-Management endpoint for two reasons: to verify that the remote server is listening on the port number that is specified using the Port parameter, and to verify the specified account credentials. The verification is accomplished using a standard WS-Identity operation. You can add the SkipTestConnection switch parameter if the remote WS-Management endpoint cannot use WS-Identify, or to reduce some data transmission time.

<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: Create a CIM session with default options -----

New-CimSession

---- Example 2: Create a CIM session to a specific computer ----

```
New-CimSession -ComputerName Server01
```

---- Example 3: Create a CIM session to multiple computers ----

```
New-CimSession -ComputerName Server01,Server02,Server03
```

----- Example 4: Create a CIM session with a friendly name -----

```
New-CimSession -ComputerName Server01,Server02 -Name FileServers
Get-CimSession -Name File*
```

You can use the friendly name of a CIM session to refer to the session in other CIM cmdlets, for example, Get-CimSession (Get-CimSession.md).

Example 5: Create a CIM session to a computer using a PSCredential object

```
New-CimSession -ComputerName Server01 -Credential $cred -Authentication
Negotiate
```

You can create a PSCredential object using the `Get-Credential` (../Microsoft.PowerShell.Security/Get-Credential.md)cmdlet.

Example 6: Create a CIM session to a computer using a specific port

```
New-CimSession -ComputerName Server01 -Port 1234
```

---------- Example 7: Create a CIM session using DCOM ----------

```
$SessionOption = New-CimSessionOption -Protocol DCOM
New-CimSession -ComputerName Server1 -SessionOption $SessionOption
```

REMARKS

To see the examples, type: "get-help New-CimSession -examples".

For more information, type: "get-help New-CimSession -detailed".

For technical information, type: "get-help New-CimSession -full".

For online help, type: "get-help New-CimSession -online"