

Remotely manage Hyper-V

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Applies To: Hyper-V Server 2012, Windows 8.1, Windows Server 2012 R2, Windows Server 2012, Hyper-V Server 2012 R2, Windows 8

The following tools are available to manage Hyper-V:

Tool	Description
Hyper-V Manager	A Microsoft Management Console (MMC) snap-in that is used to manage the Hyper-V role and virtual machine configurations.
Virtual Machine Connection	A GUI tool that provides direct remote connectivity to a virtual machine. When you right-click on a virtual machine in the Hyper-V Manager and select Connect , the Virtual Machine Connection interface is started.
Hyper-V Module for Windows Powershell	PowerShell cmdlets that are used to manage the Hyper-V role and virtual machines interactively or through scripts.

Availability and compatibility

- In Windows Server 2012 and Windows Server 2012 R2, the Hyper-V management are installed with the server role or as an optional feature.
- On a computer running Windows 8 or Windows 8.1, Professional and Enterprise editions, the Hyper-V management tools installed along with the Hyper-V Client or as an optional Windows feature. You no longer have to download the Remote Server Administration Tools (RSAT) separately to get the Hyper-V management tools on a client computer.

The following table explains the compatibility of the Hyper-V management tools. Look in the left column for the version of the tool you are running locally and then look for a checkmark in the columns to the right under each remote host operating system to see if you can manage it using your local version of the tool.

	Windows Server 2012 R2 or Windows 8.1	Windows Server 2012 or Windows 8	Windows Server 2008 R2	Hyper-V in Windows Server 2008
Hyper-V Manager running on Windows Server 2012 R2 or Windows 8.1	√	√		

	Windows Server 2012 R2 or Windows 8.1	Windows Server 2012 or Windows 8	Windows Server 2008 R2	Hyper-V in Windows Server 2008
Virtual Machine Connection running on Windows Server 2012 R2 or Windows 8.1	√	√ note 2		
Hyper-V PowerShell cmdlets running on Windows Server 2012 R2 or Windows 8.1	√	√		
Hyper-V Manager running on Windows 8 or Windows Server 2012	√ Note 1	√		
Virtual Machine Connection running on Windows 8 or Windows Server 2012	√ Note 1	√		
Hyper-V PowerShell cmdlets running on Windows 8 or Windows Server 2012	√ Note 1	√		
Hyper-V Manager running on Windows® 7 , Windows Server 2008, or Windows Server 2008 R2			√	√

Note

1. When connecting to Hyper-V in Windows Server 2012 R2 or Windows 8.1 from a computer running Windows Server 2012 or Windows 8, you can only perform actions that are supported by Hyper-V in Windows Server 2012 or Windows 8.
2. When connecting from Hyper-V in Windows Server 2012 R2 or Windows 8.1 to Windows Server 2012 or Windows 8, Hyper-V Manager does version detection and remapping for you. But Virtual Machine Connection does not.

If you want to launch Virtual Machine Connection and connect down level, you need to run the following from a command prompt:

```
\Program Files\Hyper-V\6.2\vmconnect6.2.exe
```

Security considerations

Users must either be a member of the local **Administrators** group or the local **Hyper-V Administrators** group to connect to the a server running Hyper-V via the Hyper-V Manager or Hyper-V PowerShell cmdlets.

When the server running Hyper-V that you connected to remotely is performing a task on another computer, such as accessing a share on a file server or performing a task on another server running Hyper-V, you need to configure constrained delegation. If you do not configure constrained delegation, some tasks will fail. For examples of when you should enable constrained delegation, see [Enabling Hyper-V Remote Management - Configuring Constrained Delegation For SMB and Highly Available SMB](#) and [Enabling Hyper-V Remote Management - Configuring Constrained Delegation For Non-Clustered Live Migration](#)

Installing the Hyper-V Management tools

To install the Hyper-V Management tools on Windows Server 2012 or Windows Server 2012 R2

1. In **Server Manager**, click on the **Manage** menu and then click **Add Roles and Features**.
2. Select your **Installation Type** and click **Next**.
3. Select the server you want to install the tools on and click **Next**.
4. Select **Features** from the left pane.
5. In the **Features** selection pane, open **Remote Server Administration Tools** and then open **Role Administration Tools**.
6. Under **Hyper-V Management Tools**, select the appropriate tools and then click **Next**.
7. Confirm that the appropriate tools will be installed and then click **Install**.

To install the Hyper-V Management tools on Windows 8 or Windows 8.1

1. Open **Programs and Features**. Hyper-V, Hyper-V management tools.
2. Select **Turn Windows features on or off**.
3. In the Windows Features dialog, expand Hyper-V.
4. Check the box for the appropriate tools and then click **OK**.

To install the Hyper-V Management tools using PowerShell

1. To install Hyper-V management tools, open PowerShell as an administrator and run the following command where the feature name is one of the following:
 - **Microsoft-Hyper-V-All** – installs Hyper-V and all of the management tools.
 - **Microsoft-Hyper-V-Tools-All** – installs all of the management tools: **Hyper-V Manager, Virtual Machine**

Connect and the Hyper-V module for Windows Powershell.

- **Microsoft-Hyper-V-Management-Clients** – just installs **Hyper-V Manager** and **Virtual Machine Connect**.
- **Microsoft-Hyper-V-Management-PowerShell** – only installs the Hyper-V Module for Windows Powershell

```
Enable-WindowsOptionalFeature -Feature <FeatureName> -Online
```

For example, to install Hyper-V and all the management tools, run the following command.

```
Enable-WindowsOptionalFeature -Feature 'Microsoft-Hyper-V-All' -Online
```

To get a full list of Hyper-V options that you can install, run the following command.

```
Get-WindowsOptionalFeature -Online | ? featurename -match 'Microsoft-Hyper-V*'
```

See also

The following table provides links to related articles and technologies.

Content type	References
Community resources	Configuring Kerberos Constrained Delegation for Hyper-V Management Enabling Hyper-V Remote Management - Configuring Constrained Delegation For SMB and Highly Available SMB