

Hyper-V

- Convert VHD to VHDX using Hyper-V Manager and Powershell
- Determine if VM is running in Hyper-V

Convert VHD to VHDX using Hyper-V Manager and Powershell

In this article, we will look at the step by step procedure to convert VHD to VHDX.

Advantages of VHDX

First, let's look at some of the advantages of VHDX:

- Scalable up to 64 TB
- 4 KB block size and better performance
- Protection against data corruption during power outages
- VHDX file can be resized online
- Better snapshot handling

Methods to Convert a VHD to VHDX

There are two methods you can use to convert a VHD into a VHDX file:

- Using Hyper-V Manager
- Using PowerShell

Points to be noted before conversion

- VHDX files cannot be used on versions of Hyper-V prior to Windows 8 or 2012
- For upgrade scenario, first, upgrade Hyper-V to VHDX supported version then convert VHD
- Conversion is performed offline
- Do not attempt to convert a VHD to a VHDX if any of the following are true:
 - You have created a snapshot of the virtual machine
 - You are replicating the VHD using Hyper-V Replica
 - The VHD is the parent to one or more differential virtual hard disks

Convert VHD to VHDX using Hyper-V Manager

Microsoft Hyper-V team has provided a simple way to convert existing VHDs into VHDX using Hyper-V Manager

1. Launch Hyper-V Manager, select and right-click on the virtual machine whose disk you want to convert from VHD to VHDX. Then, choose settings

convert-vhd-to-vhdx
copy file - mhd to type unknown

1. From Edit Virtual Hard Disk Wizard, Select the disk you want to convert and Click Next

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1. Click Next from Locate Disk Page

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1. Select Convert and click Next

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1. Select the VHDX format and click Next

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1. Select the type of converted disk you need, either a [dynamically expanding or fixed-size VHDX file](#) and Click Next

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1. From the Configure Disk option, provide a location to save and name for new converted VHDX file, Click Next

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1. Click Finish to start the conversion on the Summary page

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1. Conversion will take time that is based on the size of the disk and backend storage. Once completed, open the settings of the virtual machine and replace the VHD with the VHDX. To do that, open the source VHD file, click on browse and navigate to the location newly created VHDX disk

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1. Select the disk and Click open

`convert-vhd-to-vhdx`

1. Click Ok and Start and test the virtual machine

`convert-vhd-to-vhdx`

Once the converted disk is available in the virtual machine and it works fine, you may remove the old VHD file

Convert VHD to VHDX using PowerShell

Another method is, we can use to convert VHD to VHDX is PowerShell and this will avoid the time-consuming wizards used by the Hyper-V manager.

Follow below command to convert a VHD to a VHDX

Convert-VHD -Path "Source vhd file" -DestinationPath "Destination vhdx file"

Example:

```
Convert-VHD -Path d:\VM01\Disk0.vhd -DestinationPath d:\VM01\Disk0.vhdx
```

This command is very useful when you want to use a script to automate lots of VHD conversions across many virtual machines.

Change the Disk Physical Sector Size

Determine if VM is running in Hyper-V

```
Get-ItemProperty -Path 'HKLM:\SOFTWARE\Microsoft\VirtualMachine\Guest\Parameters' | Select-Object HostName
```