

Expand Encrypted OS Disk Partition in Windows_Encryption

Last updated by | Kevin Gregoire | Mar 29, 2022 at 11:47 AM PDT

Tags

cw.Azure-Encryption

cw.How-To

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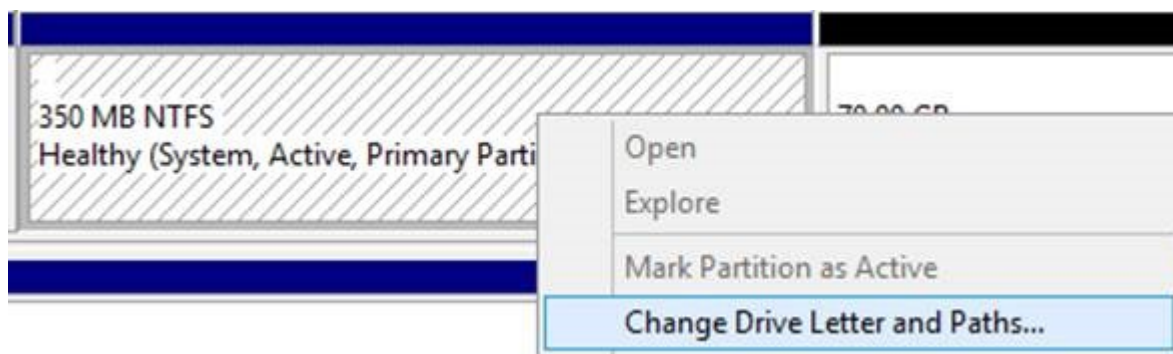
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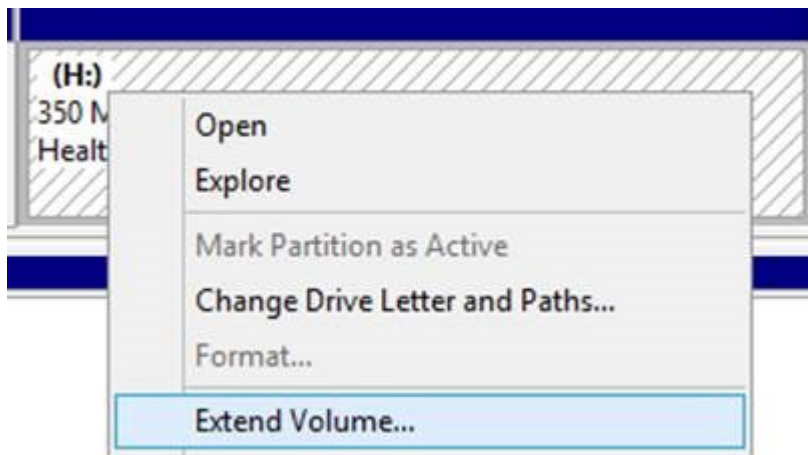
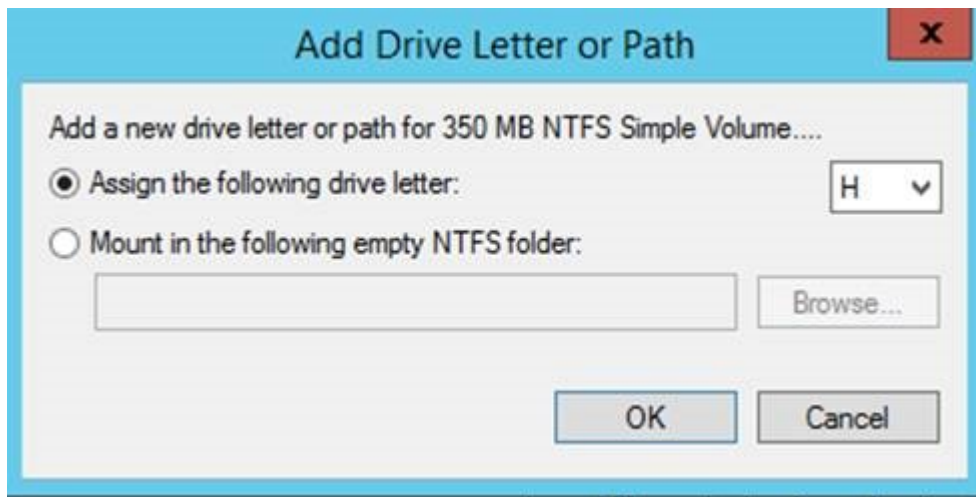
Summary

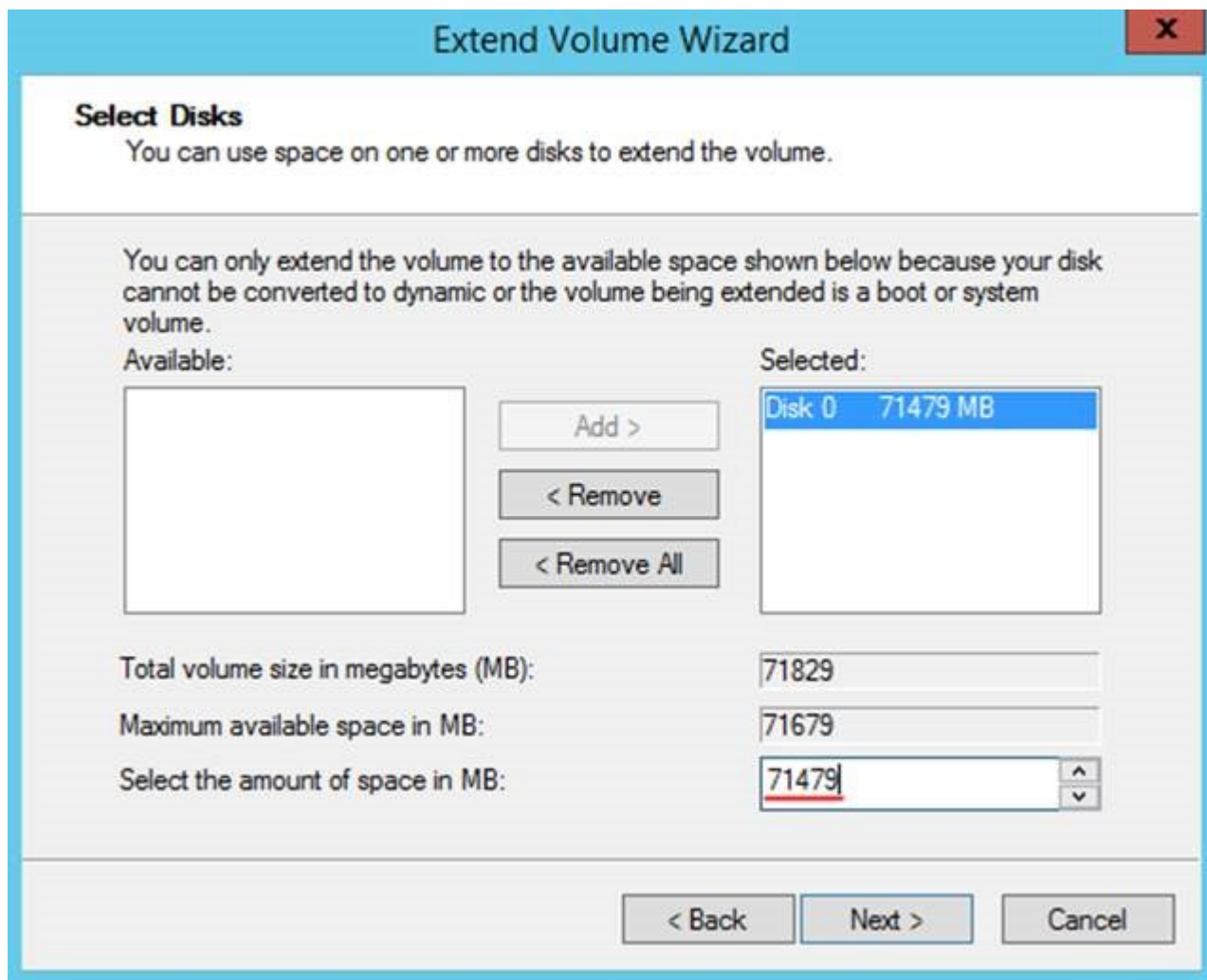
In this TSG you will find steps for expanding an encrypted OS disk in Windows.

Instructions

1. Make a backup of the VM OS disk.
2. Deallocate the VM from Azure portal and expand the OS disk size. Then start it.
3. Login to the VM. In Disk Management tool, assign a driver letter to the reserved partition that is 350 MB. For example, you can assign drive letter H: to it.



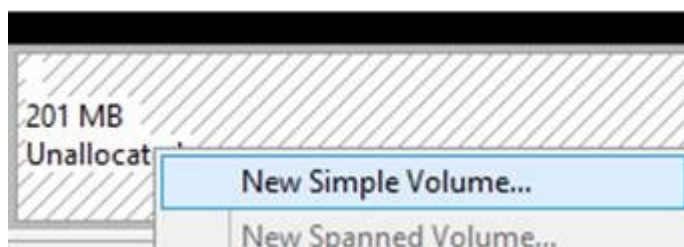


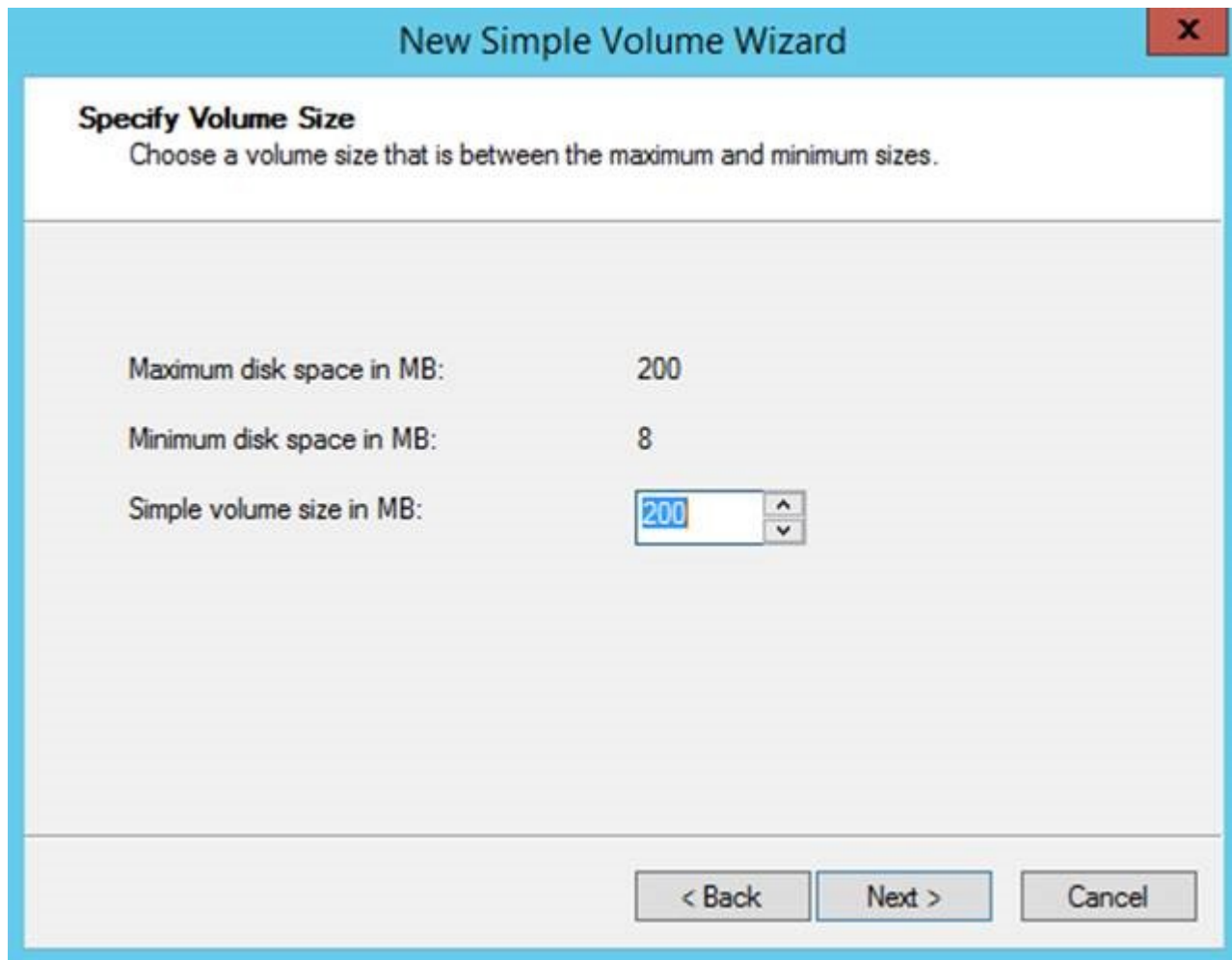


The disk partition layout will look like this after this step:

Disk 0 Basic 100.00 GB Online	(C:) 29.66 GB NTFS (BitLocker Encrypted) Healthy (Boot, Crash Dump, Primary Partition)	(H:) 70.15 GB NTFS Healthy (System, Active, Primary Partition)	201 MB Unallocated
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5. Create a new volume in the last unallocated partition and assign drive letter G: to it.





The image shows a Windows 'New Simple Volume Wizard' dialog box. The title bar is blue with the text 'New Simple Volume Wizard' and a red close button with an 'X' icon. The main area has a white background with the heading 'Specify Volume Size' and the instruction 'Choose a volume size that is between the maximum and minimum sizes.' Below this, there are three rows of information: 'Maximum disk space in MB:' with the value '200', 'Minimum disk space in MB:' with the value '8', and 'Simple volume size in MB:' with a text box containing '200' and up/down arrow buttons. At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'.

New Simple Volume Wizard

Specify Volume Size
Choose a volume size that is between the maximum and minimum sizes.

Maximum disk space in MB: 200

Minimum disk space in MB: 8

Simple volume size in MB:

< Back Next > Cancel



The image shows a Windows 'New Simple Volume Wizard' window. The title bar is blue with the text 'New Simple Volume Wizard' and a red close button. The main area has a white header with the title 'Assign Drive Letter or Path' and a subtitle 'For easier access, you can assign a drive letter or drive path to your partition.' Below this, there are three radio button options. The first option, 'Assign the following drive letter:', is selected and has a dropdown menu showing 'G'. The second option, 'Mount in the following empty NTFS folder:', has an empty text box and a 'Browse...' button. The third option is 'Do not assign a drive letter or drive path'. At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'.

New Simple Volume Wizard

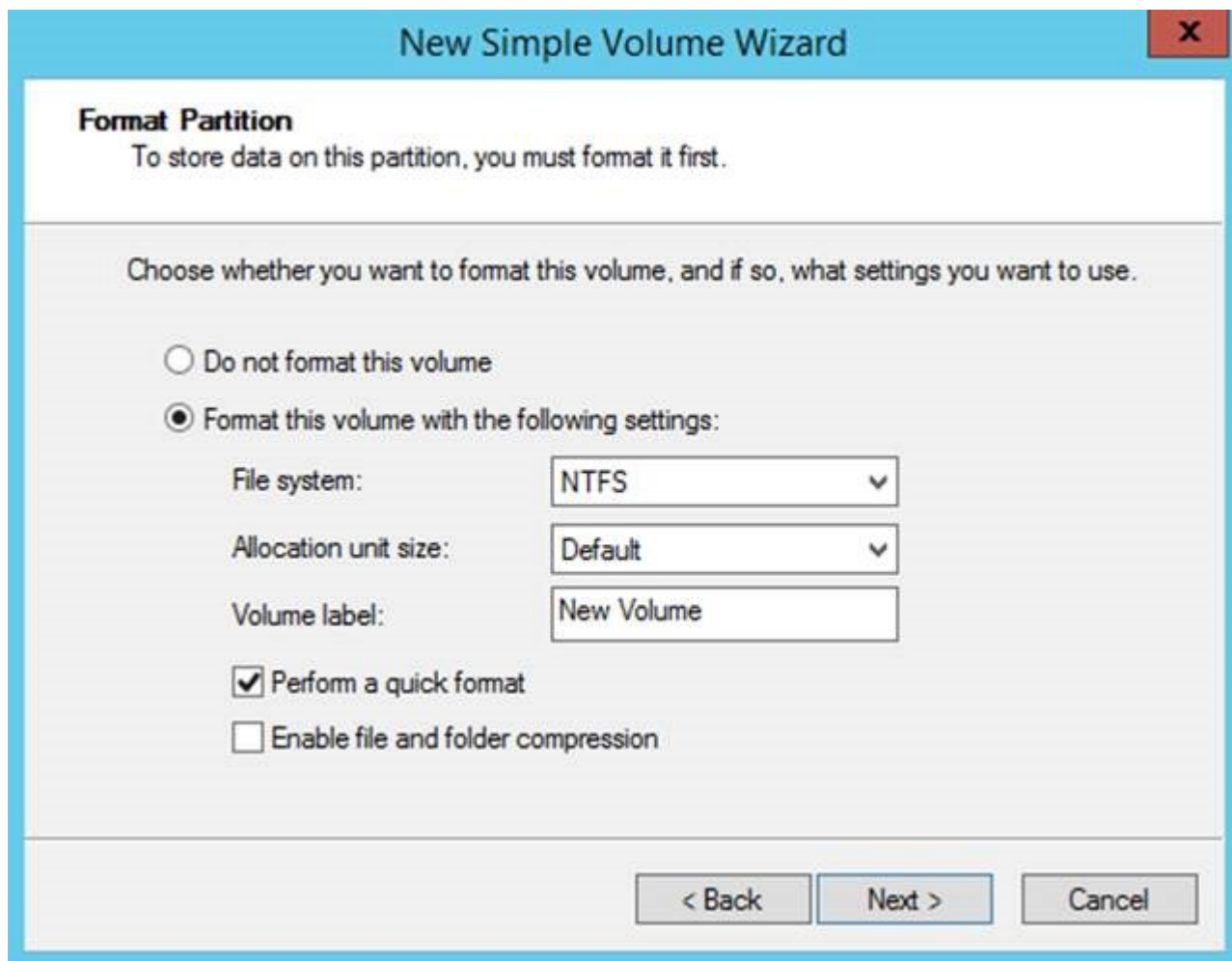
Assign Drive Letter or Path
For easier access, you can assign a drive letter or drive path to your partition.

☒ Assign the following drive letter: G ▼

☐ Mount in the following empty NTFS folder: Browse...

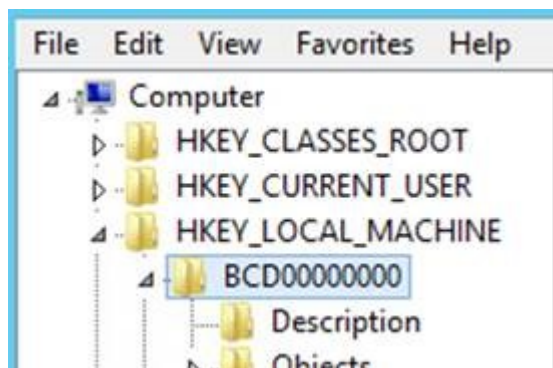
☐ Do not assign a drive letter or drive path

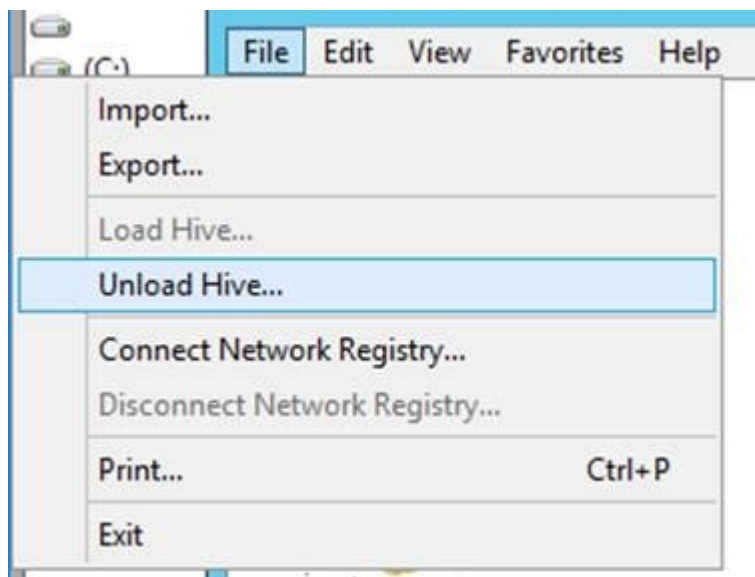
< Back Next > Cancel



6. Open CMD and run the following command to create a new set of boot files from C:\windows into G: drive:
bcdboot C:\windows /s G:

7. Open regedit, select HKEY_LOCAL_MACHINE\BCD00000000, then unload hive.





8. Copy the current bcd file from H:\boot to replace G:\boot:
 (we do this because the BCD file created by step 6 does not contain the Azure specific configurations.) if you don't want to do the copy, at least follow the "Set the Boot Configuration Data (BCD) settings" part in <https://docs.microsoft.com/en-us/azure/virtual-machines/windows/prepare-for-upload-vhd-image> ☐

```
C:\Users\rugin>copy H:\boot\bcd G:\boot\bcd
Overwrite G:\boot\bcd? <Yes/No/All>: Yes
1 file(s) copied.
```

9. Run the following command to change boot manager guid from H:\ to G:

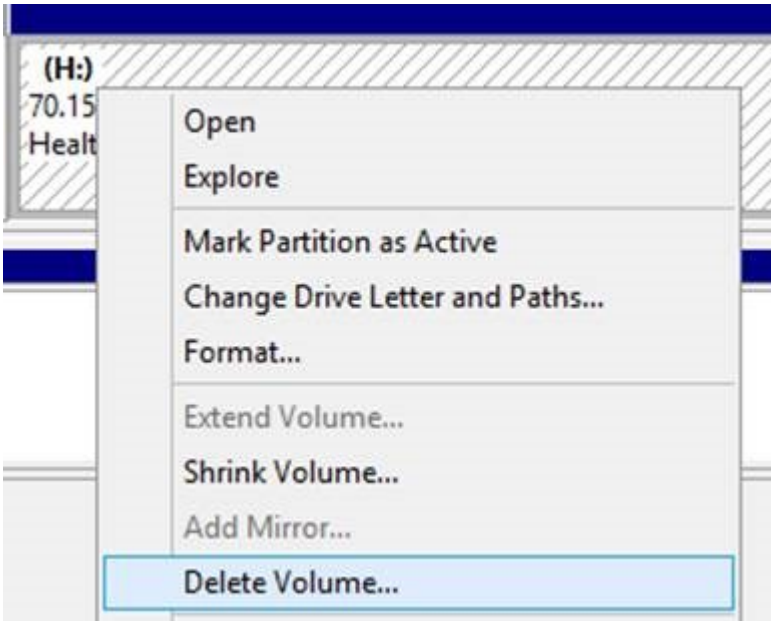
```
C:\Users\rugin>bcdedit /store G:\boot\bcd /enum /v
```

```
Windows Boot Manager
```

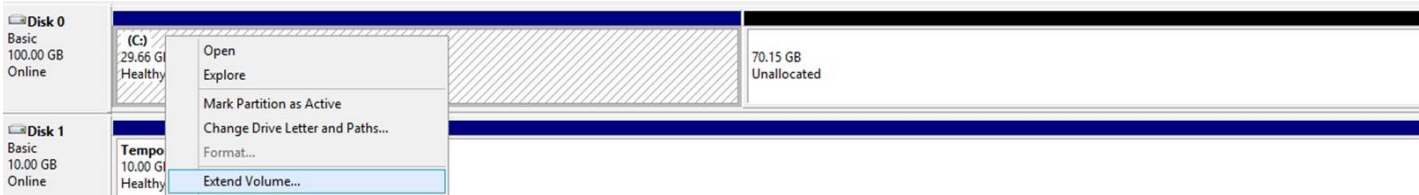
```
-----
identifier      {9dea862c-5cdd-4e70-acc1-f32b344d4795}  <<<<<
device          partition=H:
description     Windows Boot Manager
locale          en-us
inherit         {7ea2e1ac-2e61-4728-aaa3-896d9d0a9f0e}
displayorder    {05d0826e-19a2-4380-968f-4b45f971812d}
toolsdisplayorder {b2721d73-1db4-4c62-bf78-c548a880142d}
timeout         30
.....
```

```
bcdedit /store G:\boot\bcd /set {9dea862c-5cdd-4e70-acc1-f32b344d4795} device partition=G:
```

10. In Disk Management, right click G:, select "mark partition as active" and Click Yes to confirm.
11. Restart the VM.
12. Log in VM again. In disk management, delete the H: partition and click Yes to confirm:



13. Then expand C drive with the free space:



Need additional help or have feedback?

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