

Carl Stalhood

Filling gaps in EUC vendor documentation

PvS – Create Devices

Last Modified: Sep 17, 2016 @ 8:25 am

🗨 66 Comments

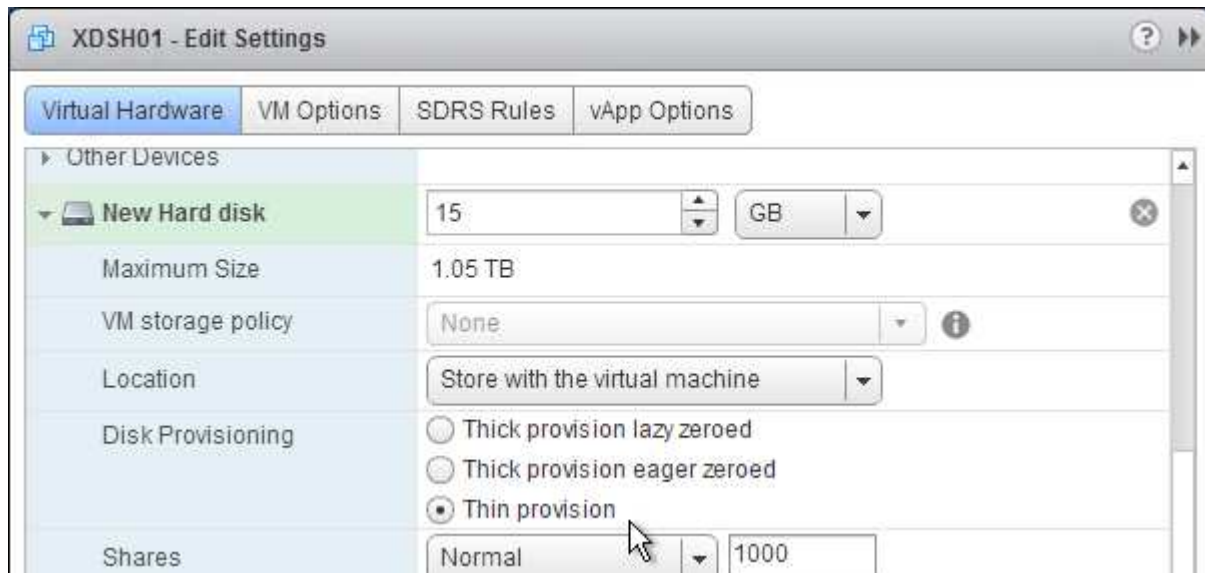
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- [Update BDM Partition](#)
- [Write Cache Size](#)

Target Device Template – vSphere

The hardware of the additional target devices must match the original virtual machine. This is so the drivers contained in the vDisk continue to function. The easiest way to preserve the hardware configuration is to clone the original virtual machine.

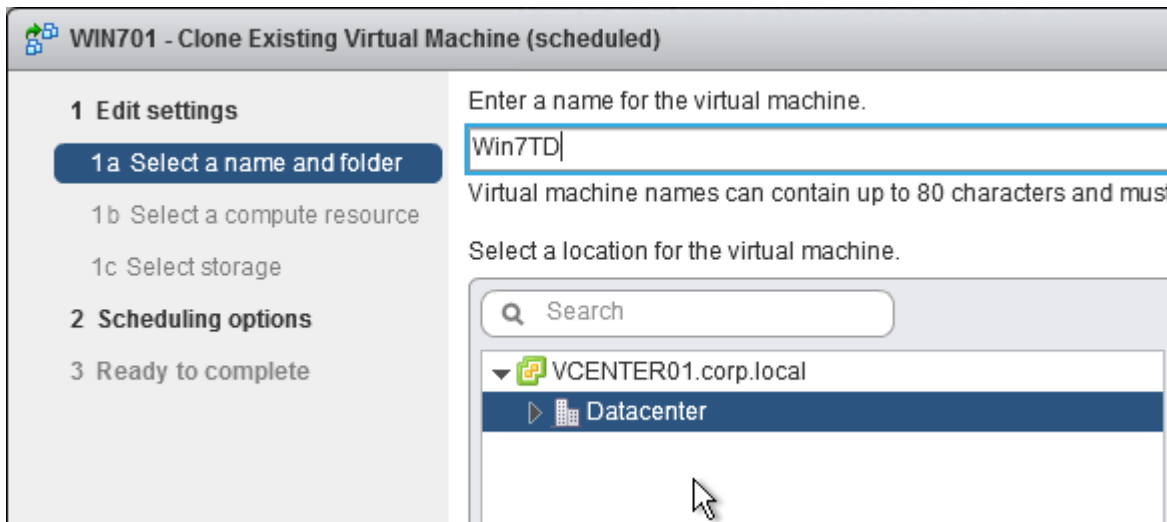
1. Shut down the original virtual machine.
2. Edit the Settings of the virtual machine and make sure there is a blank, formatted cache disk.



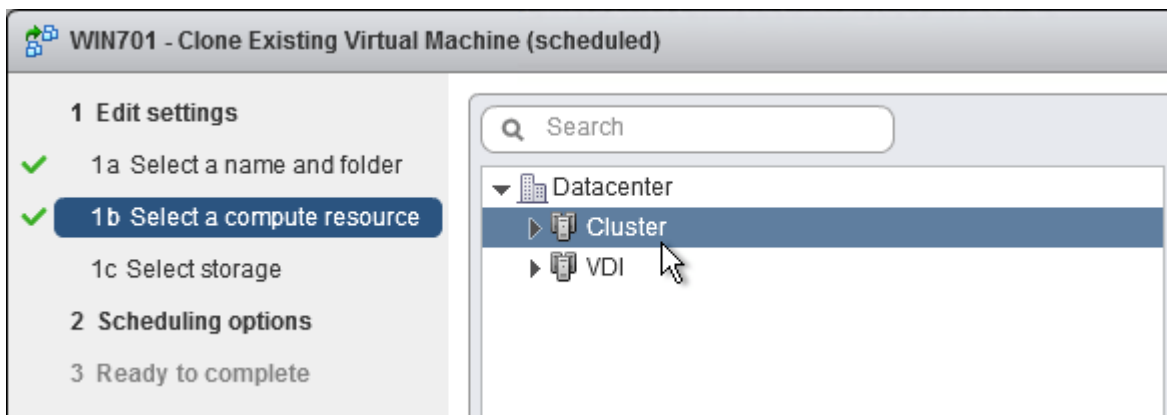
3. In the vSphere Client, right-click the original virtual machine and click **Clone**.



4. In the *Select a name and folder* page, enter a name for the template and click **Next**.



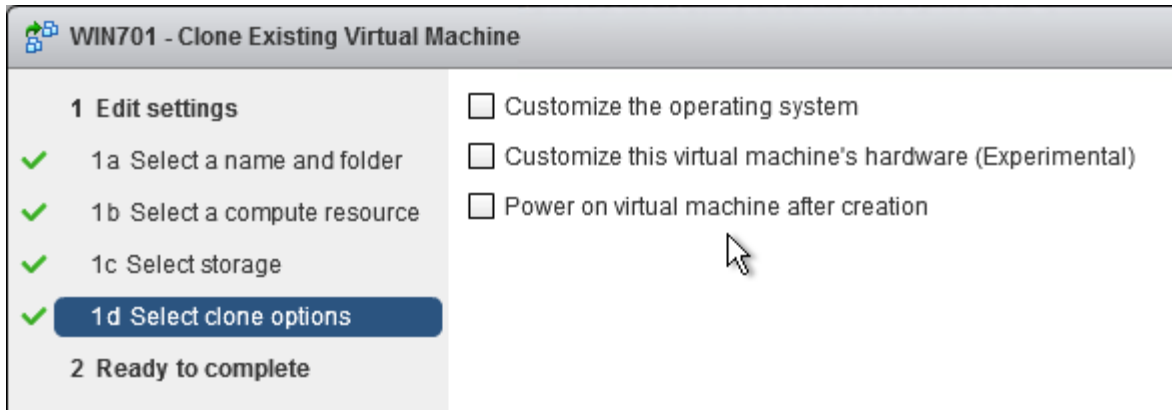
5. In the *Select a compute resource* page, select the cluster and click **Next**.



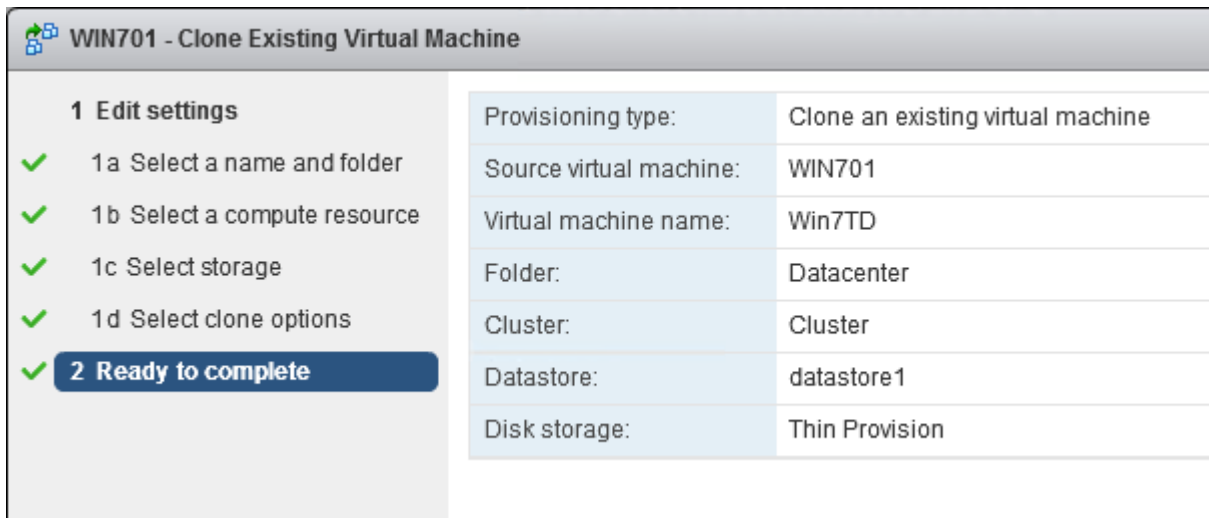
6. In the *Select storage* page, select a datastore for the template and click **Next**. Note: if you use the Provisioning Services wizards to create Target Devices, the new machines will be created on the same datastore as this template.



7. In the *Select clone options* page, don't check anything and click **Next**.



8. In the *Ready to complete* page, click **Finish**.



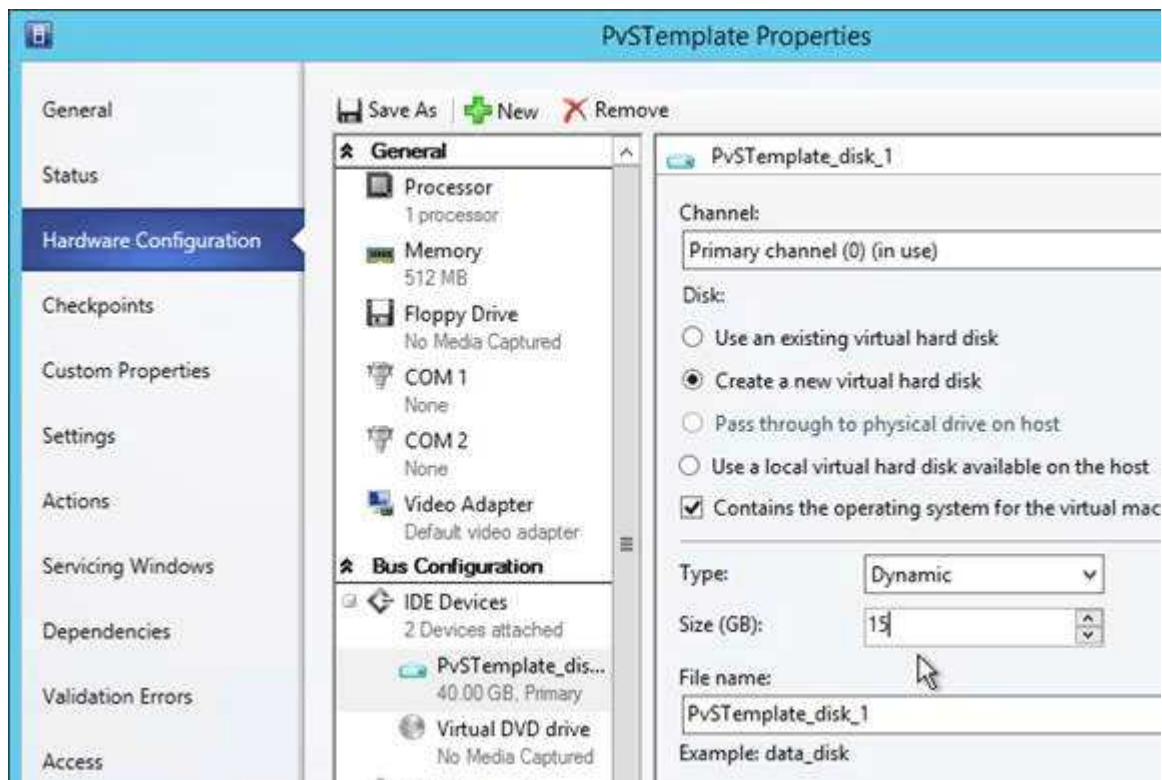
9. Now convert the virtual machine to a template using the normal means (right-click > **All vCenter Actions** > **Template** > **Convert To Template**).



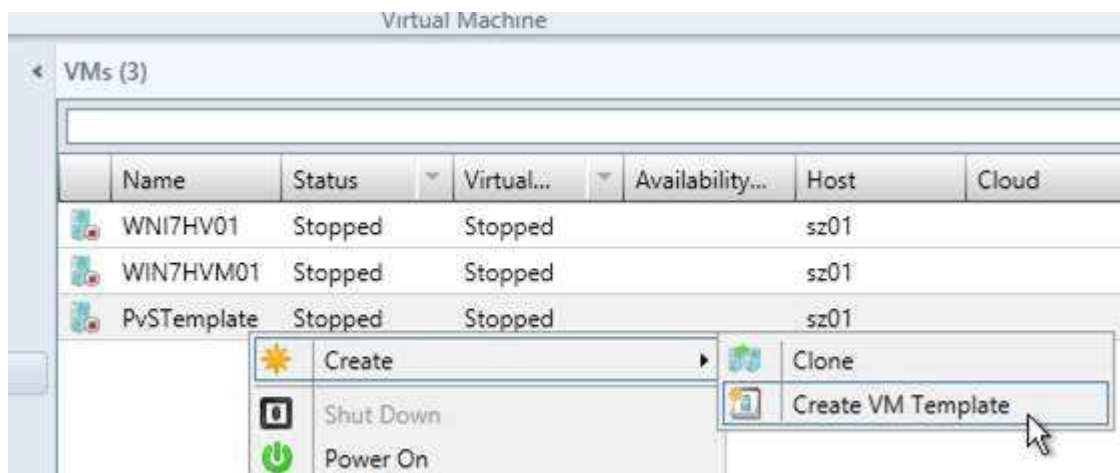
Target Device Template – Hyper-V

If you store the template in the library then you might see the issue described in CTX128750 [Hyper-V Synthetic Network Interface Card Reinitializes on New Target Devices](#). The article recommends cloning a real VM instead of a template VM but this might not work for Provisioning Services XenDesktop Setup Wizard.

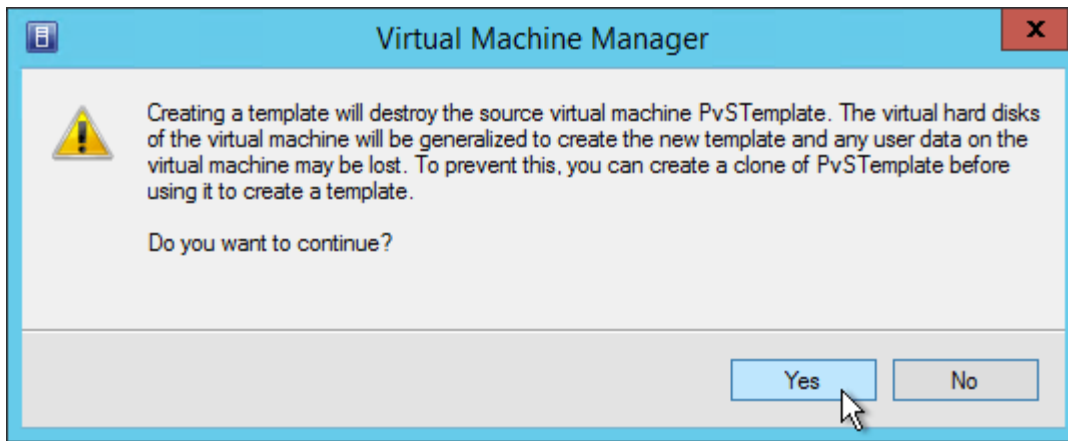
1. Edit the Properties of the original virtual machine and make sure there is a blank, formatted cache disk.



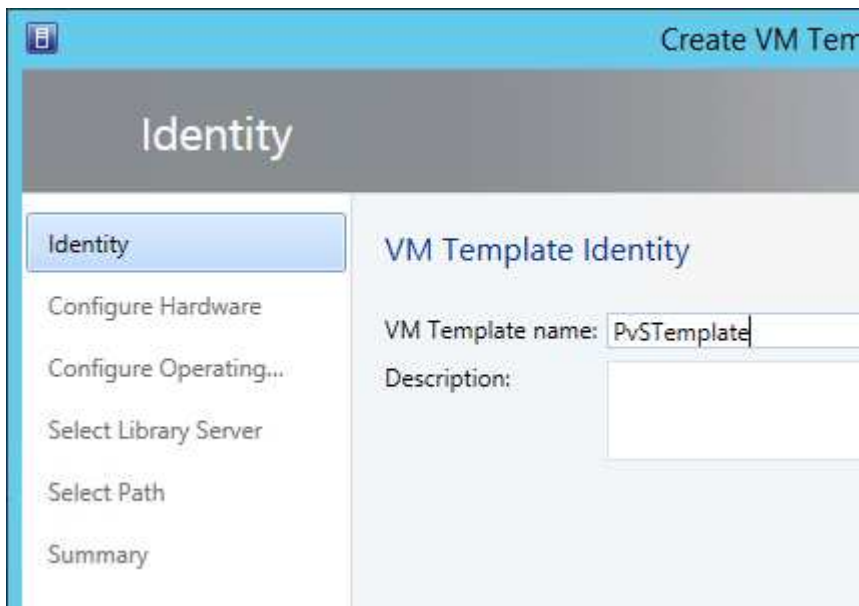
2. Right-click the original virtual machine, expand **Create** and click **Create VM Template**.



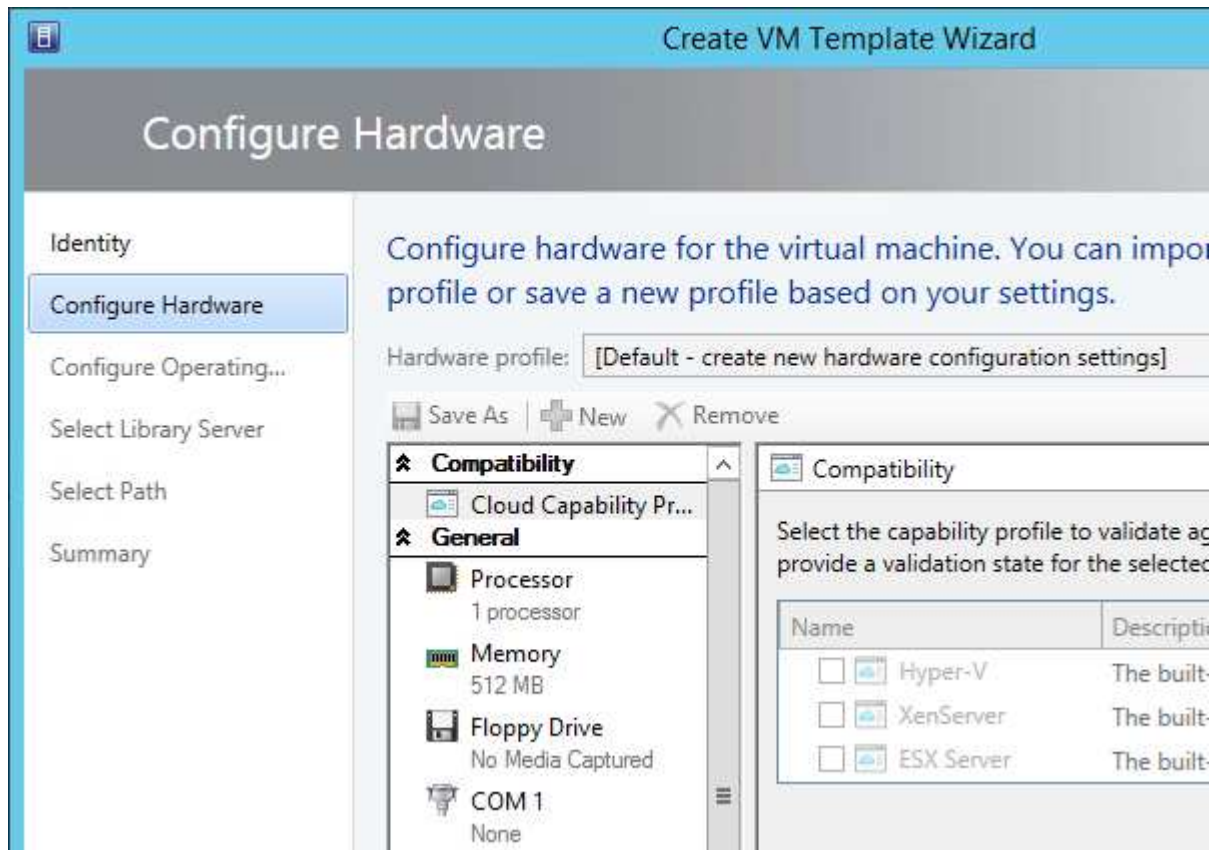
3. Click **Yes** to acknowledge that the source virtual machine will be destroyed.



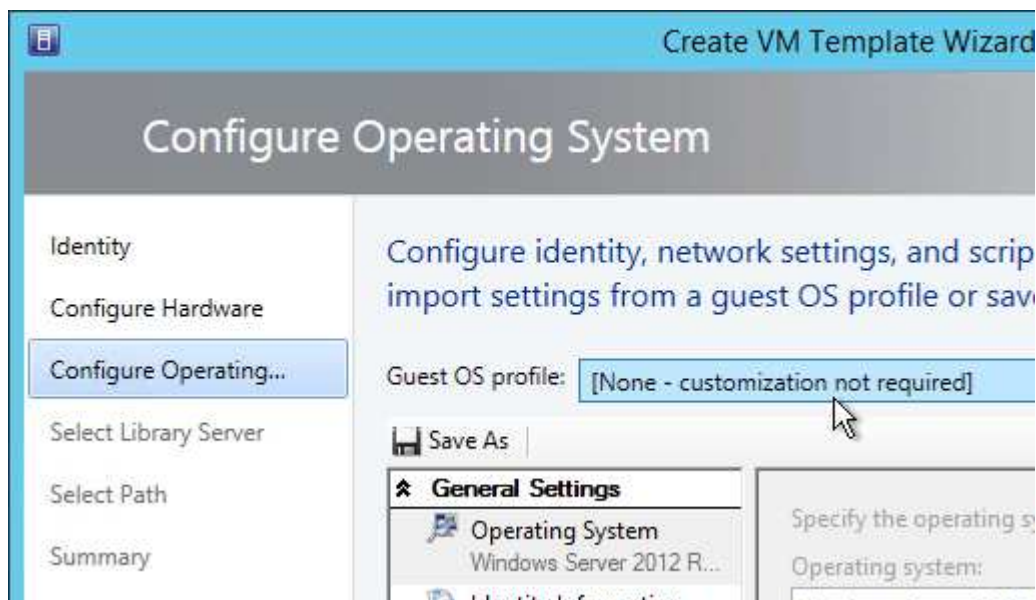
4. In the **VM Template Identity** page, give the template a name and click **Next**.



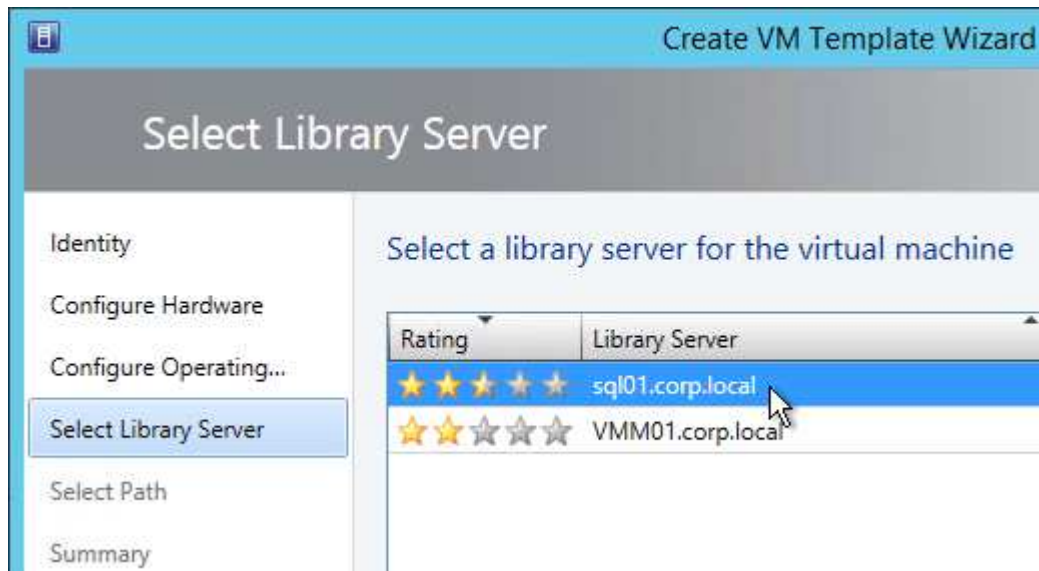
5. In the *Configure Hardware* page, click **Next**.



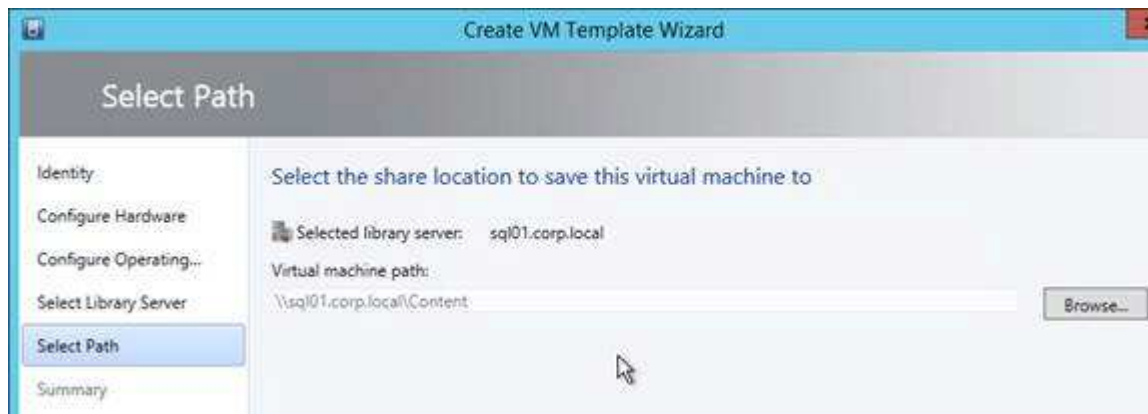
6. In the *Configure Operating System* page, select **None – customization not required** and click **Next**. There is no need to run SysPrep.



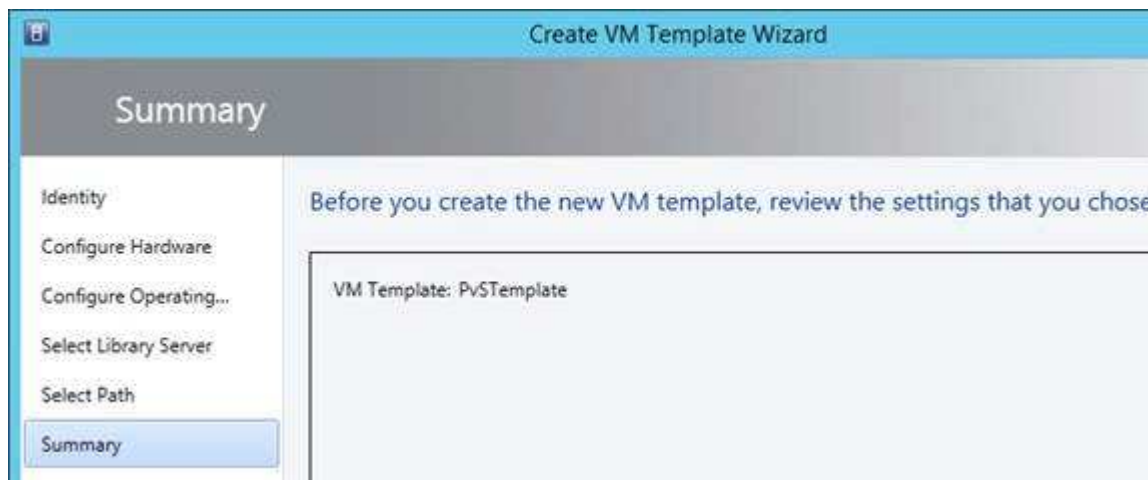
7. In the *Select Library Server* page, select a library server and click **Next**.



8. In the *Select Path* page, click **Browse** to select a share and click **Next**.



9. In the *Summary* page, click **Create**.



XenDesktop Setup Wizard

The easiest way to create a bunch of Target Devices is to use the XenDesktop Setup Wizard that is

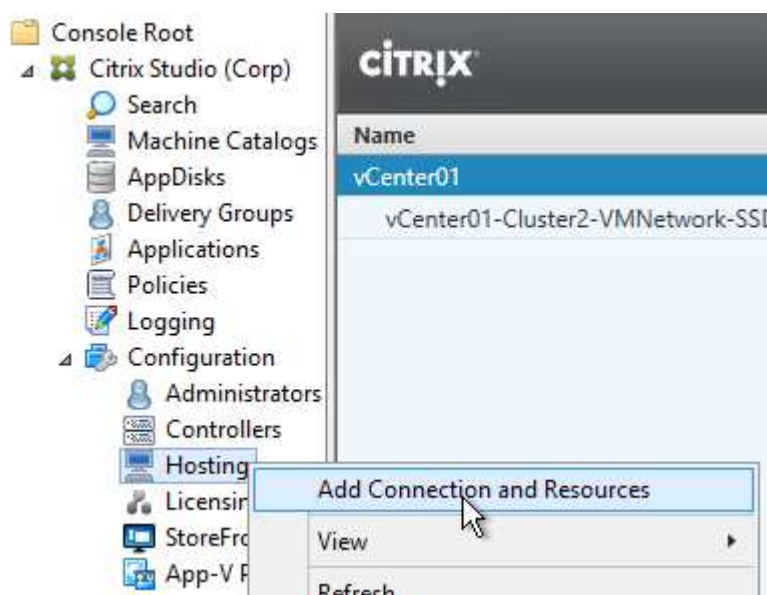
built into the Provisioning Services Console.

From [Considerations: Provisioning Services for Personal vDisk](#) at Citrix docs.citrix.com:

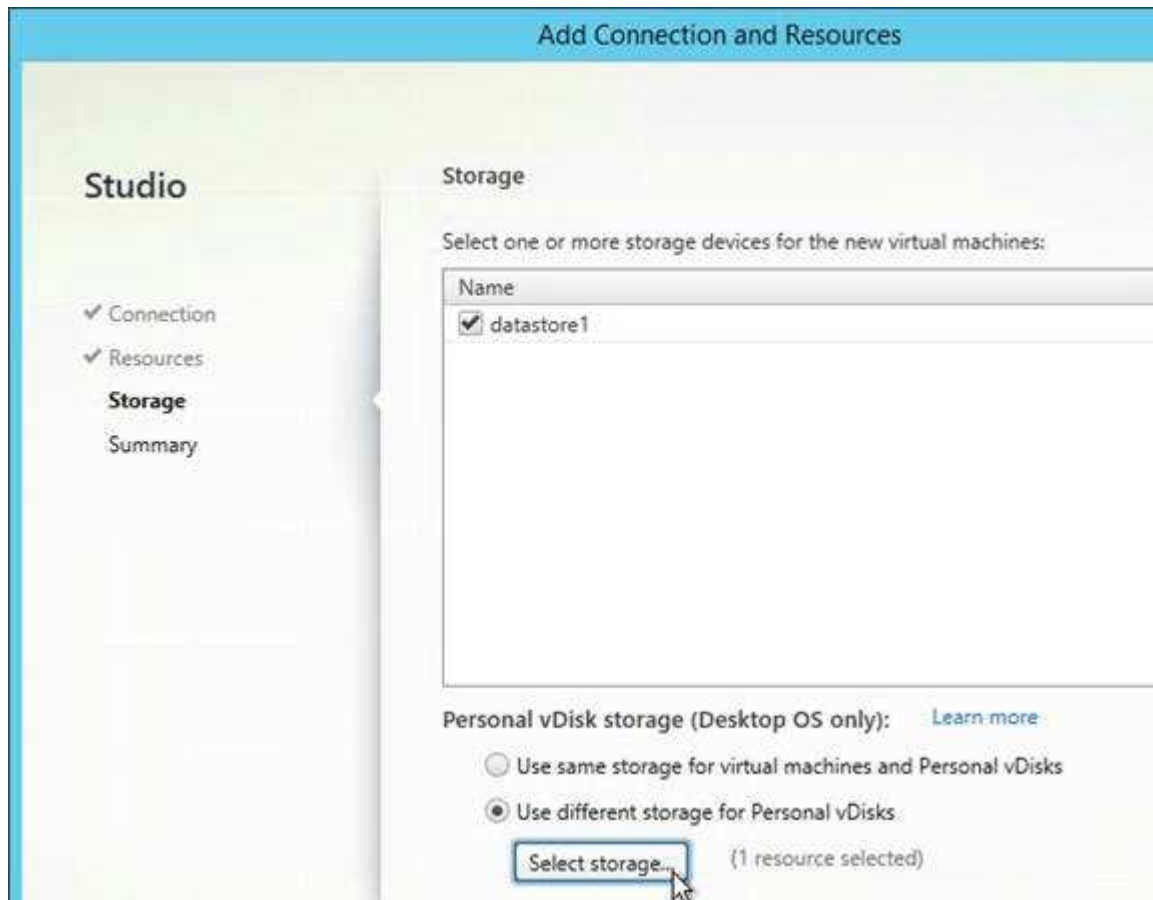
- The Soap Service account must be added to the Administrator node of Studio and must have the Machine Administrator or higher role. This ensures that the PvD desktops are put into the Preparing state when the Provisioning Services (PVS) vDisk is promoted to production.
- The Provisioning Service versioning feature must be used to update the personal vDisk. When the version is promoted to production, the Soap Service puts the PvD desktops into the Preparing state.
- The personal vDisk size should always be larger than the Provisioning Services write cache disk (otherwise, Provisioning Services might erroneously select the personal vDisk for use as its write cache).
- After you create a Delivery Group, you can monitor the personal vDisk using the [PvD Image Update Monitoring Tool](#) or the [Resize and poolstats scripts](#) (personal-vdisk-poolstats.ps1).

Do the following to launch the wizard:

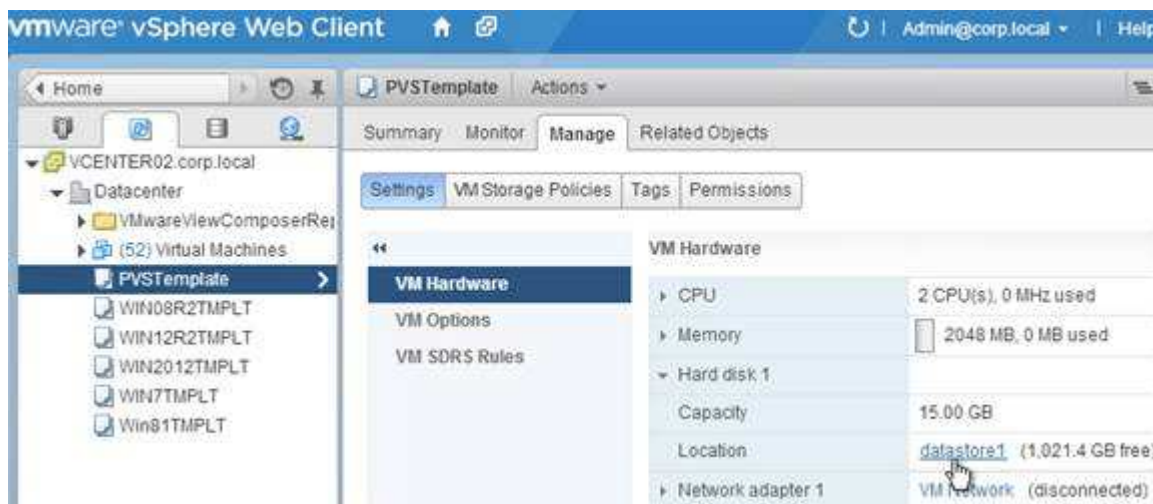
1. The XenDesktop Setup Wizard uses the [Hosting Resources defined in Studio](#) so configure them with destination datastores and networks for the new Target Devices.



2. If vSphere, XenApp / XenDesktop 7.6 has a bug. To workaround this, in the hosting resource, configure the option **Use different storage for Personal vDisks**. You can select the same storage for both the linked clones and the Personal vDisks. Configure this even if you're not using Personal vDisks.



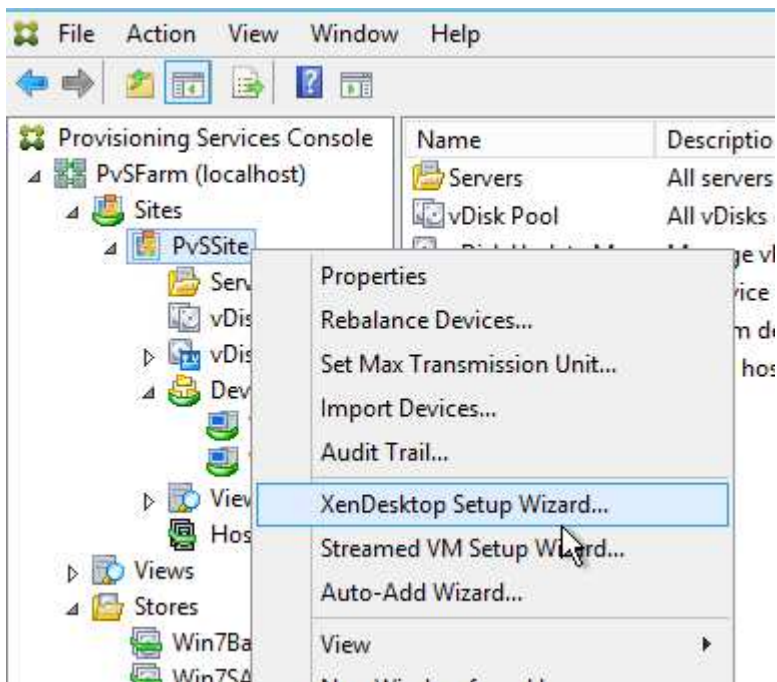
3. Make sure the Template Target Device is on the same datastore that you want the new Target Devices to be stored on.



4. If Hyper-V, make sure the VMM Console is installed on the same machine as the Provisioning Services Console.



5. In the Provisioning Services Console, right-click the site and click **XenDesktop Setup Wizard**.



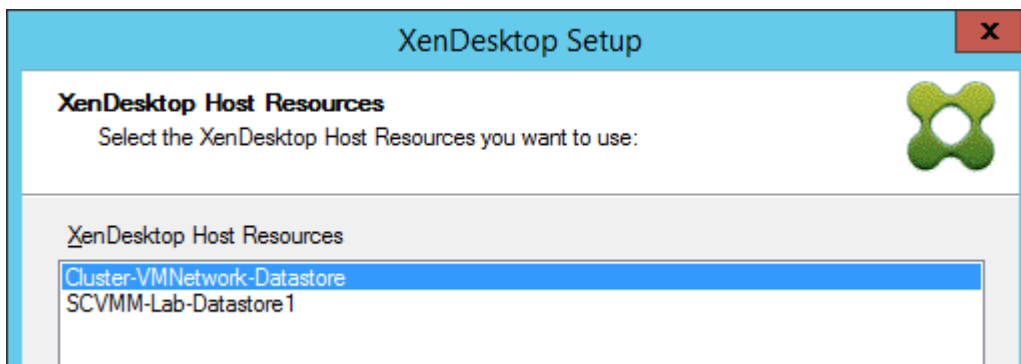
6. In the *Welcome to XenDesktop* page, click **Next**.



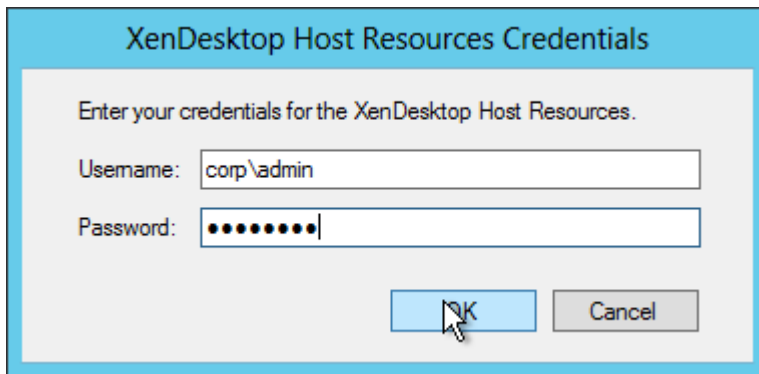
7. In the *XenDesktop Controller* page, enter the name of a XenApp/XenDesktop controller and click **Next**.



8. In the *XenDesktop Host Resources* page, select a hosting resource. This list comes from the Hosting Resources created inside Studio. Click **Next**.



9. Login to vCenter or SCVMM when prompted.



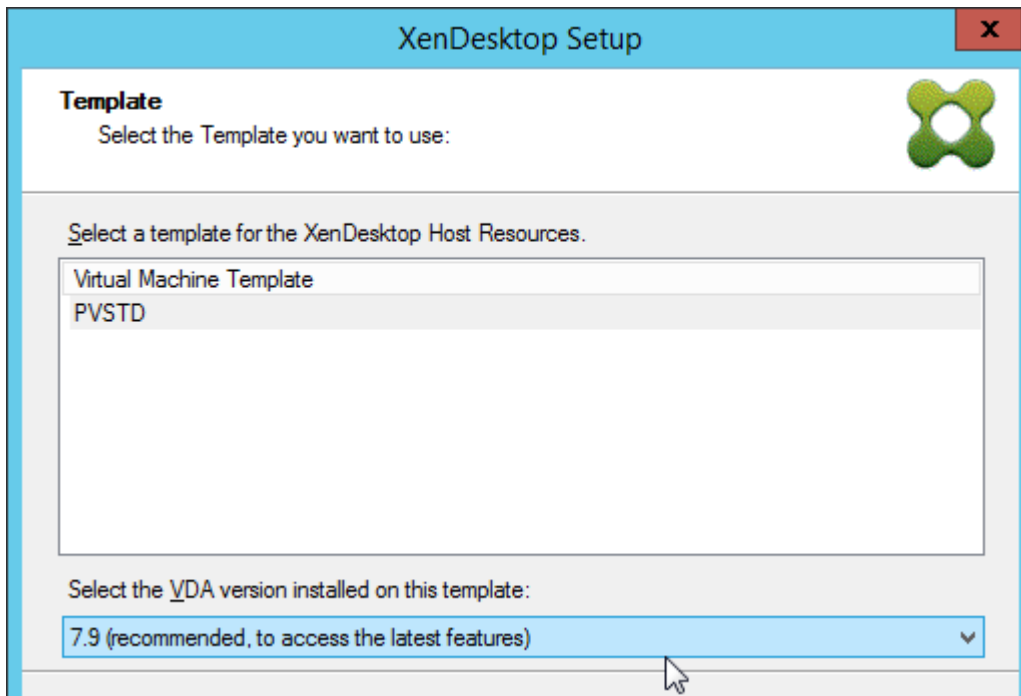
XenDesktop Host Resources Credentials

Enter your credentials for the XenDesktop Host Resources.

Username:

Password:

10. In the *Template* page, select the Target Device template and click **Next**.



XenDesktop Setup

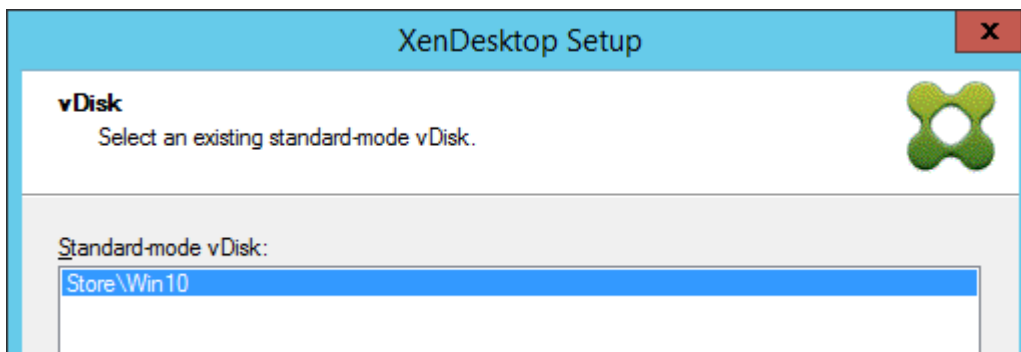
Template
Select the Template you want to use:

Select a template for the XenDesktop Host Resources.

Virtual Machine Template
PVSTD

Select the VDA version installed on this template:
7.9 (recommended, to access the latest features)

11. In the *vDisk* page, select the Standard Image vDisk and click **Next**.

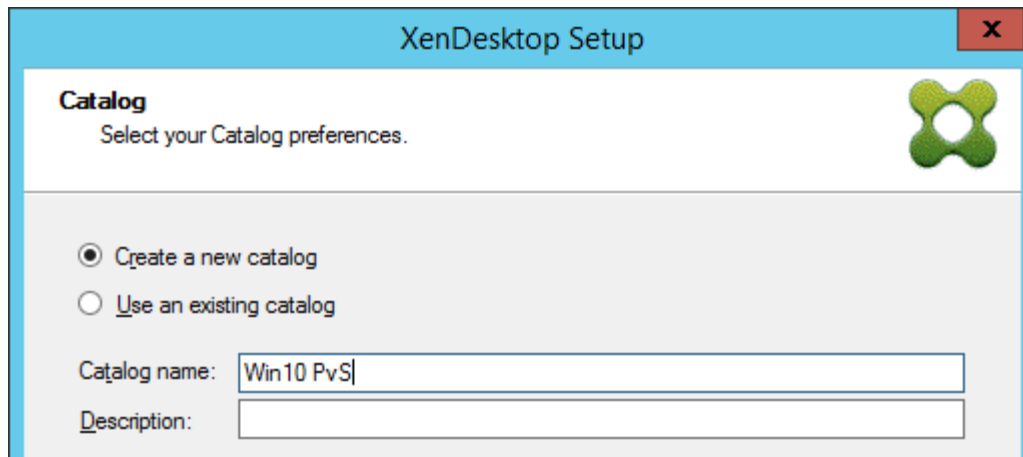


XenDesktop Setup

vDisk
Select an existing standard-mode vDisk.

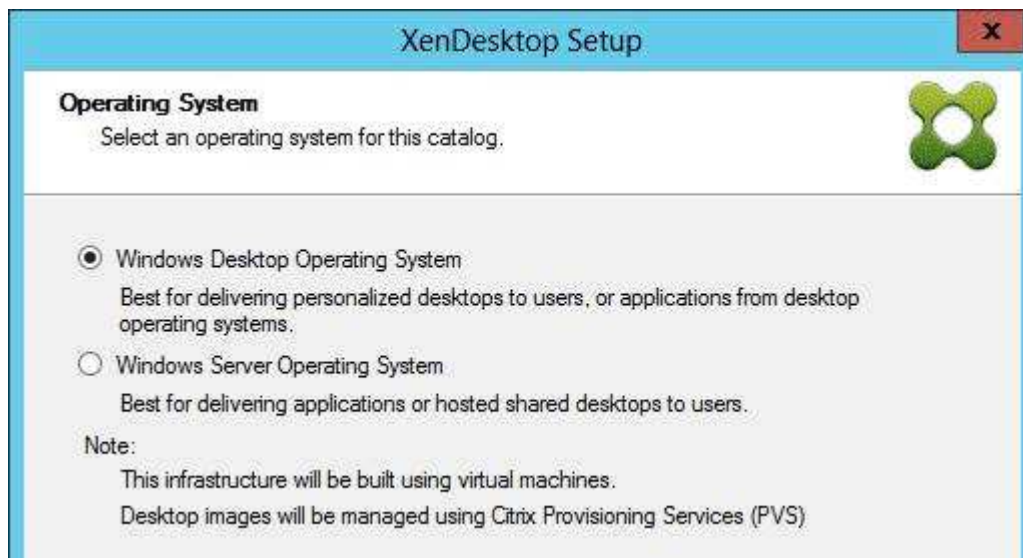
Standard-mode vDisk:
Store\Win10

12. In the *Catalog* page, enter a name for a new catalog and click **Next**. Or you can add machines to an existing catalog.



The screenshot shows the 'Catalog' page of the XenDesktop Setup wizard. The title bar reads 'XenDesktop Setup'. Below the title, the section is titled 'Catalog' with the instruction 'Select your Catalog preferences.' There are two radio button options: 'Create a new catalog' (which is selected) and 'Use an existing catalog'. Below these options are two text input fields: 'Catalog name:' containing the text 'Win10 PvsS' and 'Description:' which is currently empty.

13. In the *Operating System* page, make your selection and click **Next**.



The screenshot shows the 'Operating System' page of the XenDesktop Setup wizard. The title bar reads 'XenDesktop Setup'. Below the title, the section is titled 'Operating System' with the instruction 'Select an operating system for this catalog.' There are two radio button options: 'Windows Desktop Operating System' (which is selected) and 'Windows Server Operating System'. Below these options is a 'Note:' section stating: 'This infrastructure will be built using virtual machines. Desktop images will be managed using Citrix Provisioning Services (PVS)'. The 'Windows Desktop Operating System' option has a sub-description: 'Best for delivering personalized desktops to users, or applications from desktop operating systems.' The 'Windows Server Operating System' option has a sub-description: 'Best for delivering applications or hosted shared desktops to users.'

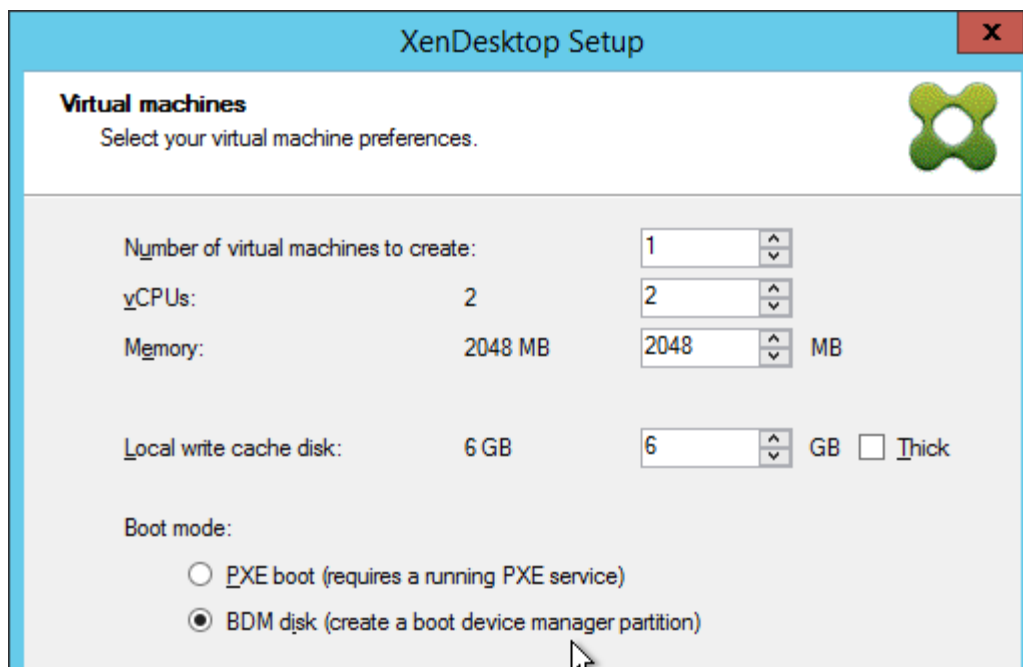
14. If you selected Windows Desktop Operating System, then in the *User Experience* page, select **random** or **static** and click **Next**.



The screenshot shows the 'User Experience' page of the XenDesktop Setup wizard. The title bar reads 'XenDesktop Setup'. Below the title, the section is titled 'User Experience' with the instruction 'Select how your users will log on and access their virtual desktops. Tell me more about logon and appearance.' There are two main radio button options: 'A fresh new (random) desktop each time' (which is selected) and 'The same (static) desktop'. Below these options is a question: 'Save changes that users have made to their virtual desktops?'. There are two radio button options for this question: 'Save changes and store them on a separate personal vDisk' (which is selected) and 'No, discard changes and clear virtual desktops at logoff'. A sub-description for the second option reads: 'User always goes to the same virtual machine, but you still have single image management.'

15. In the *Virtual machines* page, enter the number of machines you want to create.

16. For RAM caching add 256 MB (virtual desktop) or 4 GB of RAM (Remote Desktop Session Host).
See Citrix Blog Post [Size Matters: PVS RAM Cache Overflow Sizing](#) for more information.
17. Specify the size of the cache disk. 15-20 GB for session hosts and 5 GB for virtual desktops.
18. Select **BDM disk** or **PXE boot** and click **Next**. For PXE boot, the Target Devices must be on the same VLAN as the Provisioning Services servers.



The screenshot shows the 'Virtual machines' configuration page in the XenDesktop Setup wizard. The title bar reads 'XenDesktop Setup'. Below the title, the section is titled 'Virtual machines' with the instruction 'Select your virtual machine preferences.' and a Citrix logo. The configuration options are as follows:

Number of virtual machines to create:	1	↑	↓			
vCPUs:	2	↑	↓			
Memory:	2048 MB	2048	↑	↓	MB	
Local write cache disk:	6 GB	6	↑	↓	GB	<input type="checkbox"/> Thick

Boot mode:

- PXE boot (requires a running PXE service)
- BDM disk (create a boot device manager partition)

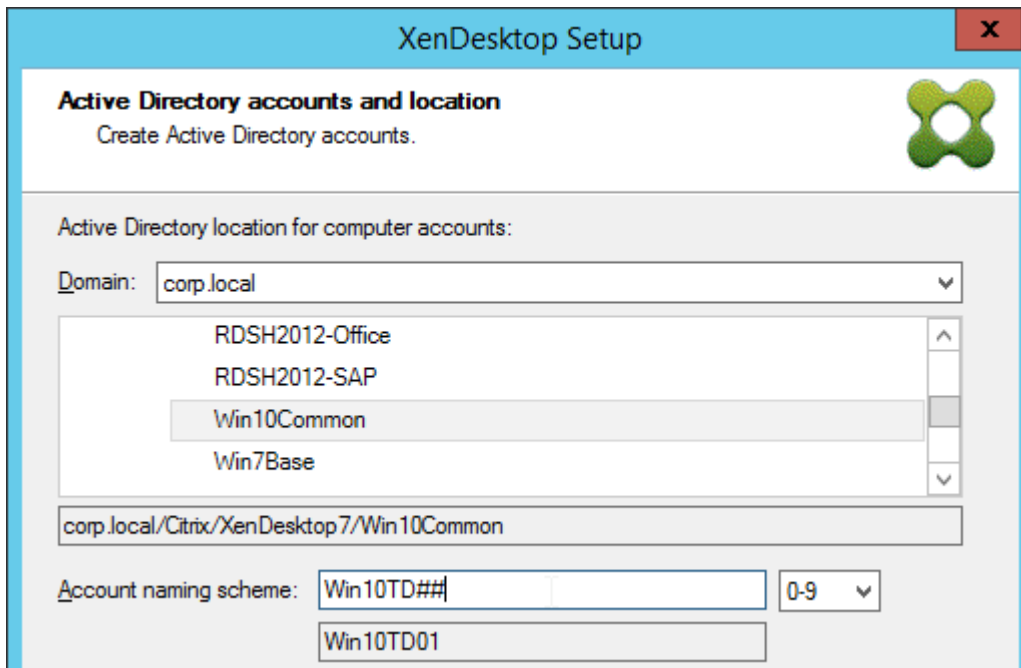
19. In the *Active Directory* page, click **Next**.



The screenshot shows the 'Active Directory' configuration page in the XenDesktop Setup wizard. The title bar reads 'XenDesktop Setup'. Below the title, the section is titled 'Active Directory' with the instruction 'Select your computer account option.' and a Citrix logo. The configuration options are as follows:

- Create new accounts
- Import existing accounts

20. In the *Active Directory accounts and location* page, select an OU.
21. Enter a naming pattern for the new machines and click **Next**.



XenDesktop Setup

Active Directory accounts and location
Create Active Directory accounts.

Active Directory location for computer accounts:

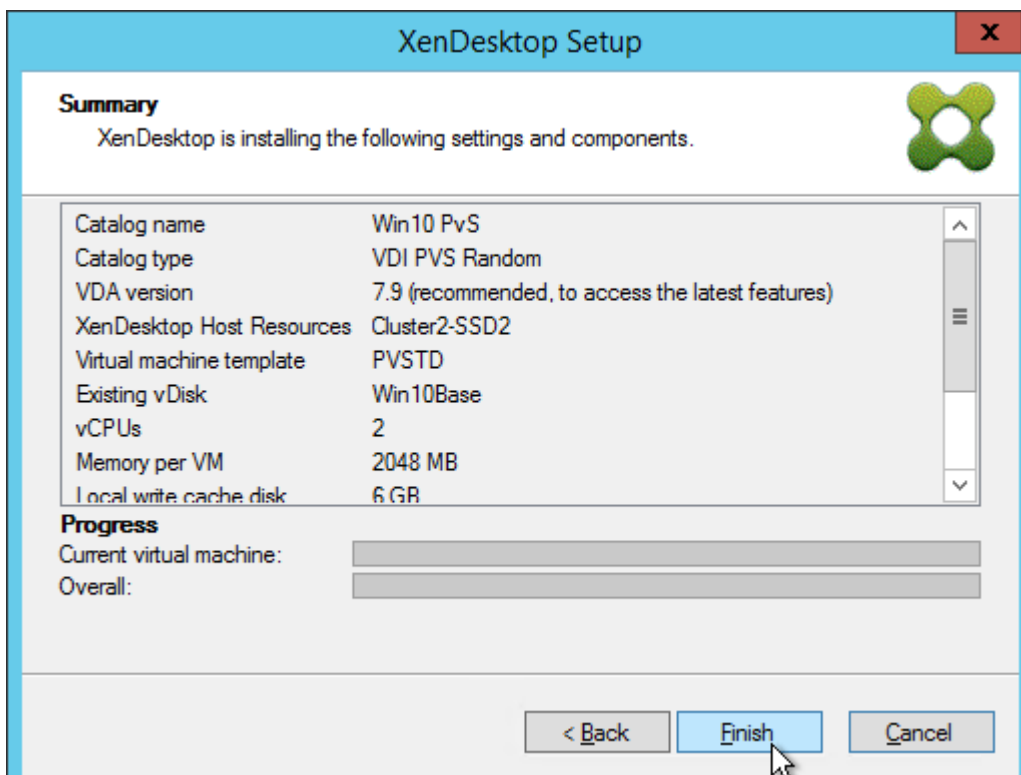
Domain: corp.local

RDSH2012-Office
RDSH2012-SAP
Win10Common
Win7Base

corp.local/Citrix/XenDesktop7/Win10Common

Account naming scheme: Win10TD## 0-9
Win10TD01

22. In the *Summary* page, click **Finish**.



XenDesktop Setup

Summary
XenDesktop is installing the following settings and components.

Catalog name	Win 10 PvS
Catalog type	VDI PVS Random
VDA version	7.9 (recommended, to access the latest features)
XenDesktop Host Resources	Cluster2-SSD2
Virtual machine template	PVSTD
Existing vDisk	Win10Base
vCPUs	2
Memory per VM	2048 MB
Local write cache disk	6 GB

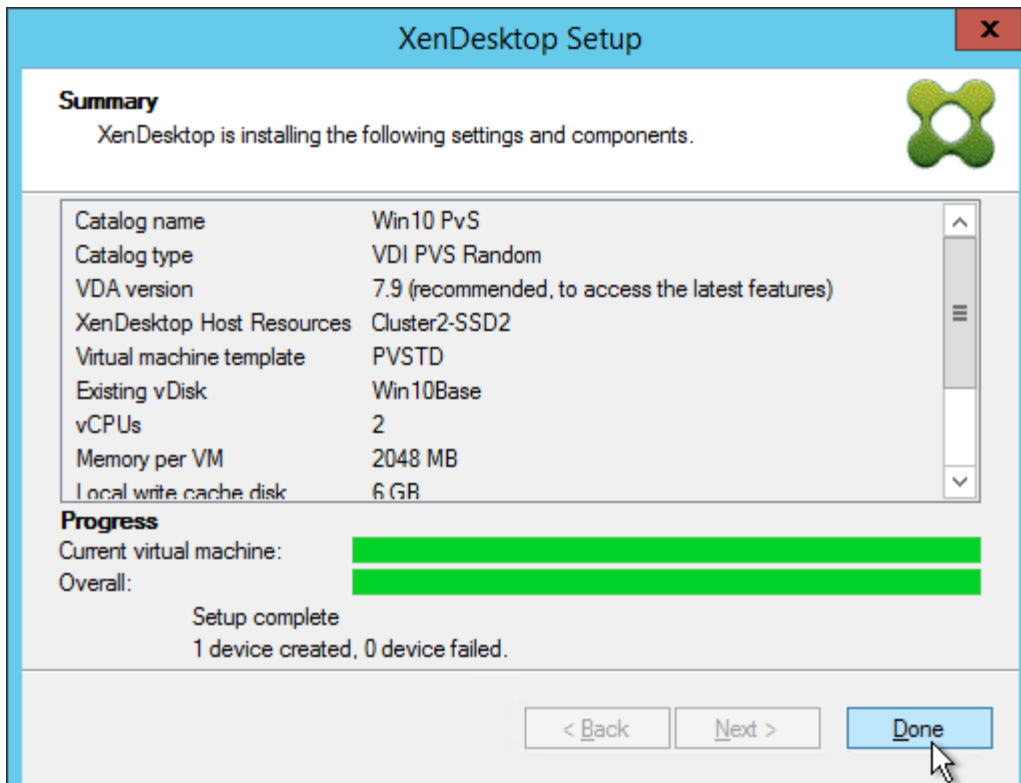
Progress

Current virtual machine:

Overall:

< Back Finish Cancel

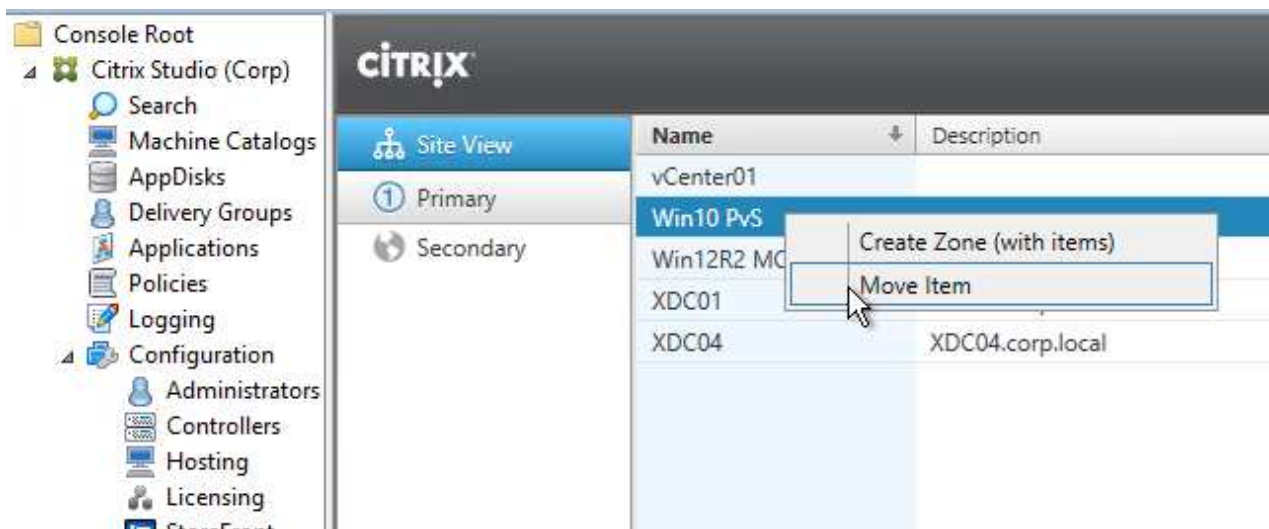
23. Then click **Done**.



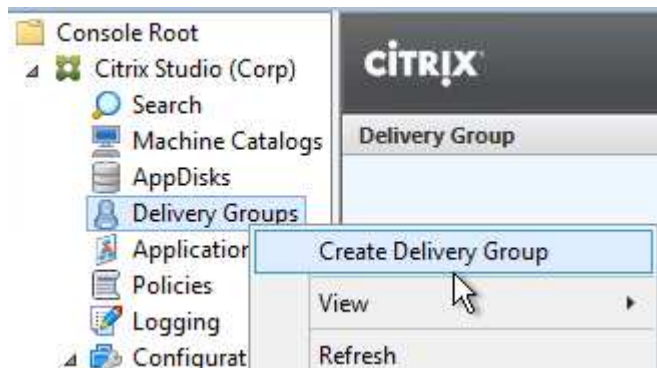
24. In Citrix Studio, you'll see a new machine catalog.



25. The PvS XenDesktop Setup Wizard seems to ignore zones (XenApp/XenDesktop 7.7 or newer) so you'll have to move it to the correct zone manually.



26. Create a new Delivery Group or add the machines to an existing Delivery Group.

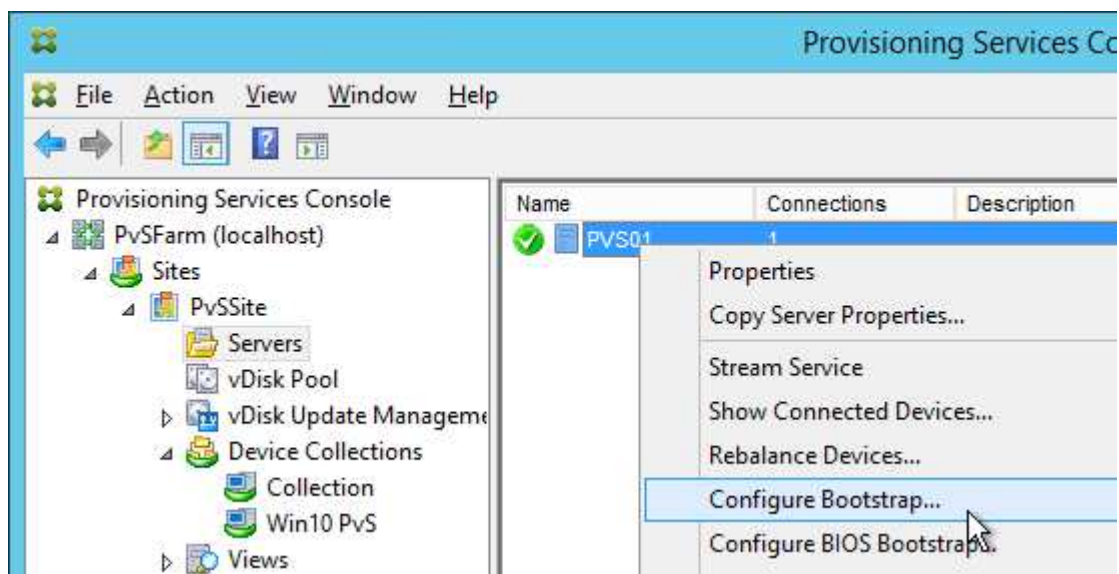


Boot Disk Manager Partition Update

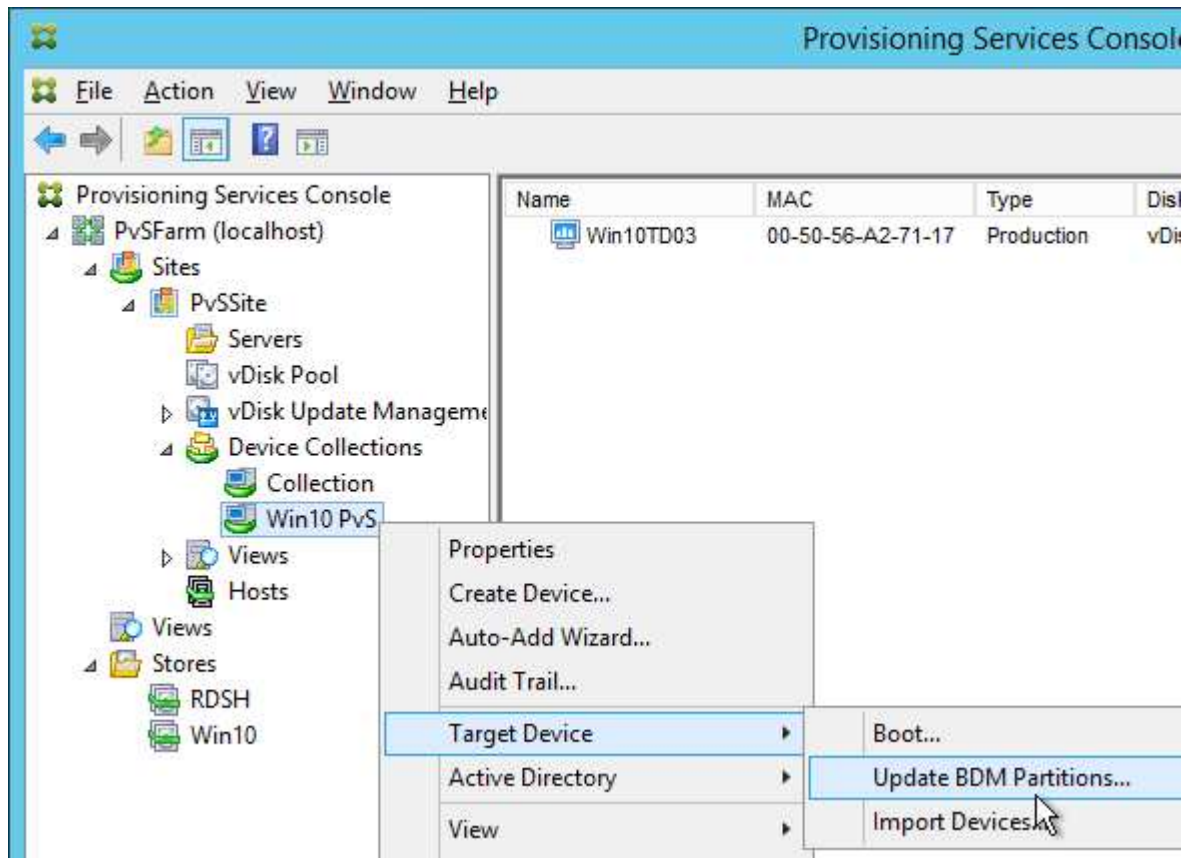
During PvS XenDesktop Setup Wizard, you can configure the Target Devices to use a BDM Partition to boot from Provisioning Services. This partition contains the IP addresses of the PvS servers. Prior to PvS 7.9, it was not possible to change the BDM Partition configuration.

In PvS 7.9 and newer, it is now possible to update the BDM Partition with the latest bootstrap info:

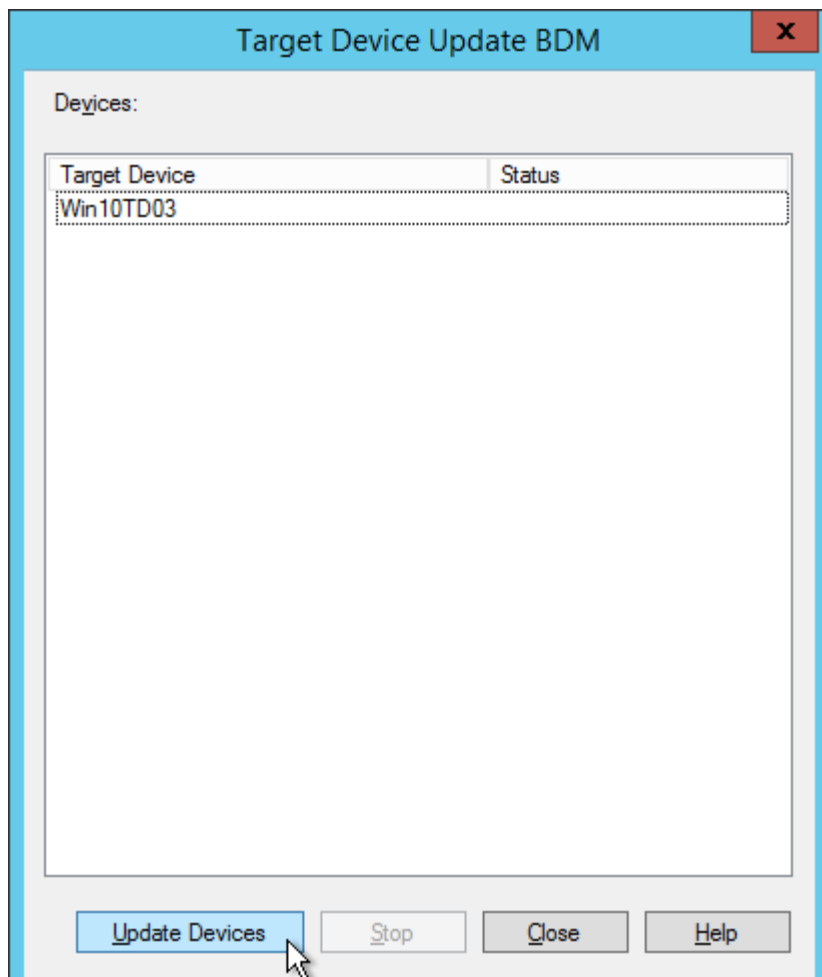
1. In PvS Console, go to **MyFarm > Sites > MySite > Servers**, right-click each PvS server and click **Configure Bootstrap**. Update the list of PvS servers.



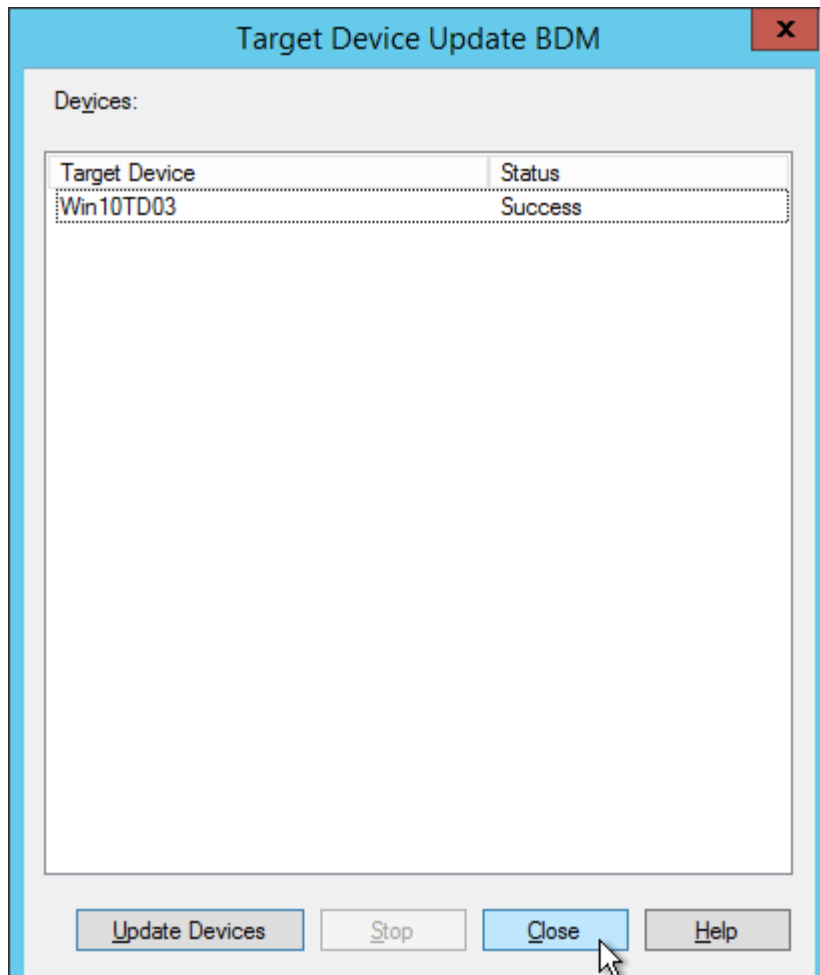
2. Go to **MyFarm > Sites > MySite > Device Collections**, right-click a collection created by the XenDesktop Setup Wizard, expand **Target Device**, and click **Update BDM Partitions**.



3. Click **Update Devices**.



4. Click **Close** when done.



Write Cache Size

Write Cache Filling Up Disk

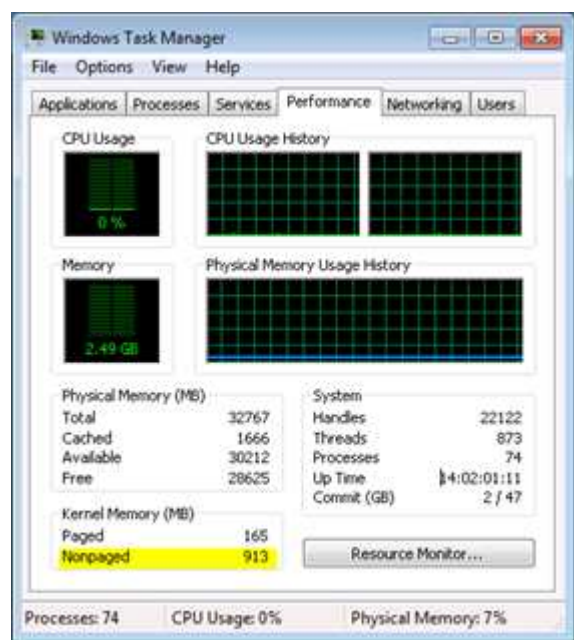
From Carl Fallis at [Citrix Discussions](#): The vdisk cache is basically a difference disk and only contains the blocks that are written to the system drive so you cannot mount it or read the file, it is just block data. What you need to do is use a tool like Process Monitor from Microsoft (used to be sysinternals) and monitor the system drive. Any write to the system drive is redirected by the PVS software to the cache file. You should make sure that any software that is installed on the target image does not have an auto update feature enabled, redirect all user data to a network share and educate your users to make sure they are not doing something that will fill up the cache like downloading a video to the local system drive.

Be aware that the RAM cache with overflow to hard drive can use more space on your local drive, it is important even in the older cache that you perform regular maintenance on your vdisks some recommendations:

- Merge to a new base disk when you have created 5 or more versions
- After every merge to the base disk, mount the new base disk and defrag the disk, this is important to reduce sectors used in the local cache, it is very important with the new RAM cache with overflow to local disk but it can have a very positive impact with the legacy local cache. Refer to <http://blogs.citrix.com/2015/01/19/size-matters-pvs-ram-cache-overflow-sizing> for more information.

Write Cache Size Monitoring

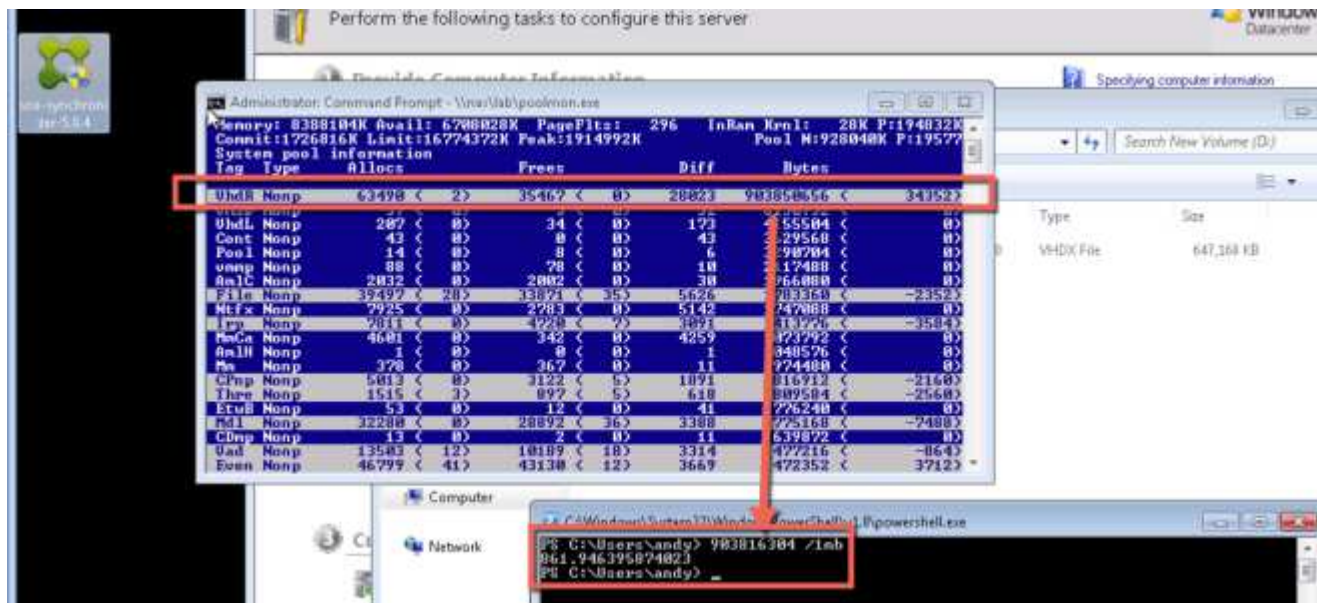
To view the size of Write Cache in RAM with overflow to disk, look in Task Manager for Nonpaged pool.



Matthew Nichols [Monitor Citrix Pvs 'Cache In Ram' Size Using Powershell](#) has a PowerShell script that uses WMI to poll a remote device for the size of the Nonpaged pool.

```
PS M:\> "CTXQA01","CTXQA02","CTXQA03","CTXQA04","CTXQA05" | Get-PVSRamCache -Credential (Get-Credential)
cmdlet Get-Credential at command pipeline position 1
Supply values for the following parameters:
832MB -- CTXQA01
800MB -- CTXQA02
826MB -- CTXQA03
812MB -- CTXQA04
913MB -- CTXQA05
PS M:\>
```

Andrew Morgan [Accurately checking the Citrix PVS "cache in Ram, Overflow to disk" RAM cache size details](#) how to use **poolmon** to view the actual RAM allocation for the write cache. And there's a PowerShell script to extract the information from **poolmon**.



Citrix Blog Post [Digging into PVS with PoolMon and WPA](#) details how to use Windows Performance Analyzer to view Provisioning Services RAM cache and overflow.



Related Topics

- [Update a vDisk](#)
- [Back to Provisioning Services](#)



📅 March 7, 2015 👤 Carl Stalhood 📁 Provisioning Services

66 thoughts on “PvS – Create Devices”



Lucas

November 1, 2016 at 5:55 pm

Carl,

“If you store the template in the library then you might see the issue described in CTX128750 Hyper-V Synthetic Network Interface Card Reinitializes on New Target Devices.”

due to this issue, I am unable to disable any offloading per best practice on my pvs targets as it “recreates the NIC”.. Have you ran into this and do you know of a good workaround?

**topokin**

October 27, 2016 at 8:45 am

Having challenges booting machines through with the created vDisk.

The conversion was successfully and vDisk reconfigured to “Standard Image...” for multi usage. Followed the steps successfully as to sealing the vDisk, but all I get is blue screen (stop error 0x0000007b) with additional devices created. I am only able to use the vDisk with the “Master Device”, every others fails.

I intentionally disable the AntiVirus both on Master Device and PVS-Server before the conversion, to eliminate any problem it could cause.

Please any tips where to look into?

We are using XenServer as Hypervisor.

Thanks

**Carl Stalhood**

October 27, 2016 at 9:19 am

Did you clone the original machine to create more target devices? If you didn't then the VM hardware might be different.

**topokin**

October 28, 2016 at 6:36 am

I actually duplicated the Master Device, convert the duplicated copy to template, then create the target devices from the template.

The duplication was tried both with “Fast clone” and “Full Copy”, but same effected.

I will try converting the Master Device directly to template, then create the target devices. Maybe something is going wrong somewhere with the copy.

What would be the ideal Option in this case when duplicating, FastClone or FullCopy? Those are the two Options XenServer offers.

Thanks

**Volker Kurth**

September 20, 2016 at 8:21 am

After upgrading from PVS 7.8 to PVS 7.11 (together with upgrading from XD 7.8 to XD 7.11) the XenDesktop Setup Wizard is no longer working.

After launching the wizard and entering the XenDesktop Controller address, we receive the following error:

“Cannot connect to the delivery controller at address ; XenDesktop FullAdmin or MachineAdmin Permission Required”

In Citrix Studio both the logged-in user account and the PVS service account are configured as “Full administrator”.

Any idea?

**Richard Meyer**

October 13, 2016 at 1:10 am

We had the same problem.

If you use Win2008R2 on PVS 7.11, try upgrade Powershell to 3.

<https://www.microsoft.com/en-us/download/details.aspx?id=34595>

Now XDSW should work !

**Rikesh**

September 15, 2016 at 7:04 am

hi carl with creating static windows 7 machines 1:1, does the pvs need to be fixed or dynamic?

**Carl Stalhood**

September 15, 2016 at 7:11 am

Fixed or Dynamic refers to disk space allocation. I assume you're doing non-persistent linked clone, which means only the cache disk grows.

If you're doing persistent VMs, then I wonder why you're using PvS? It would be easier to create full clones in your hypervisor, or use the new MCS Full Clone feature in 7.11. There's almost no benefit to PvS for persistent VMs.

**Rikesh**

September 5, 2016 at 10:58 am

Hi,

The XenDesktop Wizard is not working as the devices failed. Any thing I can do to troubleshoot this? We use XenServer

**Rikesh**

September 5, 2016 at 10:27 am

Hi Carl,

Any ideas how to troubleshoot the xendesktop wizard failing to create device?

**Chandra Sekhar Reddy**

July 26, 2016 at 10:50 pm

Hi Carl,

We have configured Citrix PVS 7.8 and created a Vdisk Image from UEFI Virtual Machine. In Dhcp 66 and 67 along with 11 options are configured. in option 67 i

have mentioned the bootfile name i.e. pxxx64... which is compatible for the UEFI target machines to get the boot file from PVS.

I have some legacy bios Vdisk and I want to stream this vdisk for legacy bios VM's and I am not able to understand where I need to mention this ardbp32.bin file in DHCP.

Can you please help me with this ?

Regards,
Chandra



Carl Stalhood 🧑

July 27, 2016 at 6:04 am

One option is to boot the legacy machines from ISO. Another option is to create DHCP reservations for the legacy machines and adjust 67 for those reservations.



Tim

July 18, 2016 at 12:24 pm

Hi Carl, great manual, thanks!

We experience the “Hyper-V Synthetic Network Interface Card Reinitializes on New Target Devices” issue.

Whenever a new machine is created from a template it generates a blue screen when it boots. This behavior does not occur when a clone is used in stead of a template, just as the article explains.

Is there any way we can still use the XenDesktop setup wizard to create VM's? It only recognizes templates, not clones.

Or does this automatically mean we have to create all VM's by hand using clones?



Carl Stalhood 🧑

July 18, 2016 at 12:27 pm

Did you create the template by cloning your original VM?

**Tim**

July 18, 2016 at 1:13 pm

I created the template from a clone, yes.

I don't have the possibility to use the actual clone in the XenDesktop setup wizard, it only recognizes templates.

**Tim**

July 20, 2016 at 5:19 am

Update: Got this working by starting over and doing the whole process again. Now my VM's are all nicely booting from their BDE drive, even though they are GEN2. Just make sure secure boot is disabled.

Create a clone first, then create a template from that clone, and use it for the XenDesktop wizard.

It does seem to work that way. Just make sure there aren't any ISO's mounted on the original VM, Clone and template while going through the process.

**js130874**

May 31, 2016 at 8:20 am

Hi Carl,

Hyper-V is hosting my infrastructure, so my target devices boot from a legacy NIC with a second synthetic NIC on the same VLAN as the legacy NIC and a third synthetic NIC for front end LAN communication, when the OS is loaded.

I've started seeing a very odd problem where the vDisk streams OK and the OS loads, but when the OS is loaded I have noticed that the synthetic NICs are not being assigned an IP from DHCP. If I put the vDisk back into Private mode and boot from the master image device, the NICs get an IP.

I've also tried an image with the 7.6 VDA that ships on the install media and the 7.6 FP3 version of the VDA, both with the same result.

Is this something you have come across in any Hyper-V implementation you have done? I tried researching the problem online, but I'm not finding any other cases that report the same symptoms.

Any help would be greatly appreciated.

Cheers



Carl Stalhood 🧑

May 31, 2016 at 8:31 am

I very rarely do Hyper-V deployments. Try posting to <http://discussions.citrix.com> where others can view and respond.



Rob

May 13, 2016 at 1:38 pm

Great Article and Site!

Was wondering if you had any thoughts on thin provisioning for the PVS Cache on disk on the Xendesktop. We have issues with the cache disk growing in size and never resetting even after reboots within VMware. We found that putting the disk to Nonpersistent mode allows us to reclaim the used disk space after the machine is rebooted/shutdown. However we lose the option to v-motion the machines to different datastores if needed while the machine is on.

Thanks again!



Carl Stalhood 🧑

May 13, 2016 at 1:43 pm

Are your cache disks significantly larger than they need to be?

MCS wouldn't have this problem.

**Rob**

May 13, 2016 at 1:55 pm

Possibly.. The cache drive is 12gb. The machines have 4gb of RAM and a page file of 8gb. Our Citrix Platinum Solutions Advisor recommended and implemented this setup with PVS for best space savings/performance. Perhaps we need to look into MCS instead, since our 300 Xendesktop environment takes a lot of space on our SAN.

**Carl Stalhood**

May 13, 2016 at 2:44 pm

While you can certainly create the cache disks as non-persistent, I would size the LUN for full cache disk utilization.

The MCS comment was geared towards the disks shrinking after a reboot. I'm not certain that the peak MCS cache disk usage would be much smaller than the PvS cache disk.

**Tyus**

May 12, 2016 at 9:17 am

Outlook isnt using “Cached Exchange Mode” . Normally users will open up outlook and allow it to run and sit in the background or on a second monitor. The document management apps are probably heavily used.

**Carl Stalhood**

May 12, 2016 at 9:32 am

The only way to know capacity for sure is to do capacity testing. For simulated users, see [LoginVSI](#). Or, get some users on the machine, watch performance, and ask users if performance is suffering. If not, add more users until performance declines.

**Sarah**

May 10, 2016 at 9:27 am

Hey Carl, I have everything working pretty well. My cachedisk in on D: and RAM

cache with overflow to disk is working. One thing I don't understand is what is the point of the Default Write Cache locations under the store properties in PVS. I specified a CIFS location there, but it doesn't use it because I have a cache disk, but every time I try to remove the cifs location in the store properties, it just tells me something had to be specified. Is there a reason I need something specified in the store properties?



Carl Stalhood 🧑

May 10, 2016 at 9:34 am

If your Target Device cache disk is not setup correctly then PVS will fallback to putting the cache disk on the PVS server. Your write cache folder should always be empty.



e-Van

May 9, 2016 at 11:32 am

Hi Carl,

Thanks a lot for your more than valuable articles !

I've got something weird about the write cache disk.

My master Vmware machine has 2 disks (1 for local boot, 1 for writecache independent/non persistent)

While being in private mode, I setup Windows 7 so that my write cache disk is formatted NTFS, volume D:, basic disk

and I instructed the OS to put the pagefile on this disk.

My template Vmware has 1 only disk (1 for writecache).

After putting the vdisk in standard mode, I used the XenDesktop streamed VM to create one validation machine.

The machine boots fine except that Windows do not know the partition for the write cache and therefore

it created a temporary page file on the C drive.

Where did I go wrong ?

Kind regards

e-Van



Carl Stalhood 🧑

May 9, 2016 at 11:52 am

I usually don't move the pagefile. Leave it on C: and PVS will move it automatically.

Also, make sure the maximum size of the pagefile is less than the size of the D: drive.



Yvan Scigala

May 9, 2016 at 4:39 pm

Allright, so instead of setting a fixed size on D:, I set it as "system managed size" on C: ? (and then as written in the CTX122141 article, the PVS TDS places the pagefile automatically on the next available volume like D, E, F ?). What about the fact that when I go in the Disk management console (while being in the target device started in standard mode), I got the popup asking me to define a newly discovered disk as an MBR disk and then I have to create the volume, format, etc .. ?

It's just like the settings I made in master/private mode are not held, that puzzles me a bit.



Carl Stalhood

May 9, 2016 at 4:59 pm

Your template should definitely have a NTFS formatted cache disk.

Or the XenDesktop Setup Wizard will do it for you.

The pagefile should be set to a fixed size (not system managed) that is smaller than the cache disk.



Jim

April 28, 2016 at 4:25 am

Great article, worked fine.

Question: If we want to "persist" changes in some machines ONLY (e.g. registry keys and static IP) after reboot, any idea how we can go about it?



Carl Stalhood



April 28, 2016 at 5:30 am

For registry keys, are they HKLM? Or HKCU? If HKLM, use a scheduled task to write the values to a network share. Then use a computer startup script to reapply the values. For HKCU, use roaming profiles.

For Static IP, you can use either DHCP reservations? Or you can build the Target Devices using Personal vDisk. PvD would also preserve HKLM registry keys.



Ralf

March 7, 2016 at 6:58 am

Hi Carl,

thanks for providing such a great website !

currently using pvs 7.6

If i need target devices with different CPU allocation (some pooled desktops with 2 vCPUs some with 4vCPUs) would I need separate vdisks images for these , sealed with the appropriate resources allocated at the time ? I tried to just increase the CPUs in the xencenter console and the target device is now requesting a restart (which seems pointless in read-only image)

Thanks,



Carl Stalhood 

March 7, 2016 at 7:15 am

Changing the hardware might require new drivers in the image. Usually you build the image with all needed drivers. Then you select the particular hardware on each Target Device. If you use the XenDesktop Setup Wizard then the wizard will ask you for the specs of each VM.



Ralf

March 7, 2016 at 8:12 am

in the case of my different CPU requirements , do you mean i should seal the image with the maximum number of CPUs I anticipate for some of our VDIs and then when it comes to the Xendesktop wizard build the target devices

with a possible reduced number of CPUs ?



Chris

March 16, 2016 at 5:00 pm

Carl, I see your answer to Ralf. This would be great to know as it is always something I wasn't sure about. How do you break up different needs for RAM and CPU in the same pool of PVS machines? Is it as simple as making sure all different resource configurations of RAM and CPU have been attempted in the MTD, and then rebooted, before creating that vDisk? How can you change RAM for a user that really needs the excess while keeping that person on the same image and in the same pool of machines without it asking for a restart?



Carl Stalhood 

March 16, 2016 at 5:13 pm

If CPU/Memory change requires a reboot, then look in the file C:\Windows\Inf\setupapi.dev.log to determine which driver requested the reboot.



Chris

March 16, 2016 at 7:26 pm

Thanks Carl! After that, Is it as simple as updating that master image in maintenance mode with that driver or would I need to put it in private mode?



Lauren

February 4, 2016 at 2:57 pm

Hi Carl – have you tried to use VMware storage clusters with PVS & the streamed VM setup wizard? It won't recognize the storage cluster and just ends up creating the VMs on the same data store where the template resides. Is there a better solution than creating a template on each data store to address this? Would love to get your thoughts!



Lauren

February 4, 2016 at 5:46 pm

Disregard my previous message – turns out that there are too many limitations with the streamed VM setup wizard such as the lack of support for storage clusters...so I am going to have to use the XenDesktop setup wizard and make sure that I have a host connection in XenDesktop that has the ability to access all of my storage datastores.



Alexander

December 19, 2015 at 2:10 am

Hi Carl,

I created my news VMs inside PVS Console 7.6 and the respective catalog on Delivery Controller, following your explanation described above. I'm using XenDesktop 7.6 Environment on XenServer 6.5. The procedure worked fine, but I had a problem with the NICs on the VMs.

I got two NICs: one Physical NIC for my server's environment communication and I created a Private Network (Virtual NIC) for PVS Services (this is a Demo Environment on the single XenServer). The template which I used to create the VM have the two NICs (I need the physical NIC to login on the VMs with an Active Directory user account) and the Resources I configured on Delivery Controller also. The XenDesktop Setup Wizard asked me the Network for PVS Services and I selected the dedicated network for it (the Virtual NIC). When the VMs turn on, they see the two NICs but like a same network, the physical NIC got the same IP address of the Virtual NIC and that is a problem for me, because I not able to login on the VM whit the Active Directory user account (the AD server reside into another network, to reach this network I use the physical NIC)...

Could you help me to understand this issue?

Thanks a lot in advance for your cooperation.

Regards,

Alexander



Carl Stalhood 🇺🇸

December 19, 2015 at 6:45 am

Are the virtual NICs connected to different XenServer networks? How else

would both NICs get the same DHCP IP?

I personally never do two NICs in my PvS machines. I also almost never use XenServer. So you might want to post your question to <http://discussions.citrix.com>.



Alexander

December 19, 2015 at 8:22 am

Yes, the virtual NICs are connected to different networks and each network has the own DHCP server (one DHCP for the domain and another for PVS Services). Furthermore, I set the binding only for the NIC dedicated to PVS on the DHCP which assign IP address to the VMs created with PVS Services (I made the same configuration for domain DHCP, associated only to the NIC dedicated to the domain).

If I use the “Streamed VM Setup Wizard” to create a new VMs, everything works properly and each virtual NICs get the right IP address of the networks which belong, but if I use “XenDesktop Setup Wizard”, I’ve always the same problem with the IP addresses of the NICs... This stuff is a mystery for me...

What do you think about this?



Carl Stalhood

December 19, 2015 at 8:30 am

The XenDesktop Setup Wizard uses the Hosting Resources defined in Citrix Studio. I can’t recall if those Hosting Resources support multiple NICs per VM. MCS uses the same Hosting Resources so you might be able to Google search for MCS and multiple NICs.

**Alexander**

December 19, 2015 at 9:59 am

OK, thanks Carl, I'll do the research and I'll let you know! 😊 Congratulation for this article, very useful and interesting like all your articles!

Have a good weekend and Merry Christmas!

Alexander

**js130874**

November 18, 2015 at 12:39 am

Hi Carl turned to be that the console hadn't refreshed. Also, as I'm using (god damned!) Hyper-V, it puts the synthetic NIC first in the boot order when it creates the VM. I copied the MAC address from the synthetic, NIC into the properties of the legacy NIC and was able to boot successfully.

Do you know of a way around this? I'd like to specify that the VM is created with the legacy NIC taking priority.

Cheers.

**Carl Stalhood** 🧑

November 18, 2015 at 6:58 am

PvS 7.7 supports UEFI and hopefully Hyper-V Gen 2 machines. That should fix the Legacy NIC problem.

**Umberto-Anna**

November 17, 2015 at 10:29 pm

Hi Carl, I'm using the XenDesktop Setup Wizard to deploy Windows 2012 R2 shared desktop services. Everything works perfectly until the the VM is created. The wizard completes successfully, the AD account and Machine Catalogue are created, but there is no device created in PVS. Consequently, the VM wont boot from PXE as there is no device in the DB.

I must've missed a vital step, but I've been through the above and cant seem to

pin down what I've missed.

Any thoughts?



Carl Stalhood 🇺🇸

November 19, 2015 at 5:20 am

Here's a similar thread – <https://discussions.citrix.com/topic/361691-xendesktop-setup-wizard-does-not-create-all-devices/>

Are you running PvS 7.6 Update 1?



Andy

August 14, 2015 at 11:02 am

Carl,

Thank you for all this great documentation. I'm having an issue with the XenDesktop Setup Wizard. I run through the wizard, select my template and go to create the VMs and it is creating them in the wrong cluster in vCenter. The template is saved on a host in my VDI cluster yet it starts creating them in a different cluster. The clusters share the same storage but I figured it would create the VMs where the template resides. Any help is appreciated.

-Andy



Carl Stalhood 🇺🇸

August 14, 2015 at 12:48 pm

In Citrix Studio, go to Configuration > Hosting. Edit your Hosting Resources. Is the correct cluster selected?



Andy

August 14, 2015 at 1:23 pm

Thanks...I had it set wrong in there.

In my current XD 7.5 environment with XenServer 6.2 hosts, running the wizard creates VMs pretty quick. My new XD 7.6 environment is on ESXi 5.5 U2

and it takes ~2 minutes to create 10 VMs with the wizard. Is this normal?



Carl Stalhood 🧑

August 14, 2015 at 1:27 pm

Depends on your hardware and the size of the disks attached to each VM.



bradley

August 11, 2015 at 10:50 am

Hi Carl, Thanks for the awesome documentation!

I'm a bit stuck at this point now – I'm trying to use XenDesktop Setup Wizard to deploy VMs using local host (ESXi 5.5) storage for the cache disks. I've got 2 templates, 1 copy on each of the local datastores. In Citrix Studio Hosting node I've got two resources configured, one for each host with only the local storage selected (and shared storage for PVD). The environment is XD 7.6 and PVS 7.6.

When I select the host specific resource, the correct template is presented. The problem is that no matter which of the resources I select the task always runs on the same node which obviously cannot access the template on the other datastore, so currently I can only deploy VMs from one template, on that one host. There doesn't seem to be any way of my selecting which host to run the task on.

Do you know how I can get around this?

Thanks!



Carl Stalhood 🧑

August 11, 2015 at 5:49 pm

Are the hosts in separate clusters? Or are they in the same cluster?



bradley

August 21, 2015 at 5:05 am

The two hosts form one cluster



Carl Stalhood 👤

August 21, 2015 at 5:43 am

If they're in one cluster, try breaking them out into separate clusters.



Matheen

April 24, 2015 at 11:22 am

Thanks Carl, We will be using RAM cache with overflow to disk and the article talks about the benefits of RAM cache with reduced load to overflow disk. So I presume standard Tier 2 ISCSI shared storage will be ok?



Matheen

April 24, 2015 at 11:15 am

I meant the underlying storage to store write cache files. (Does it needs to be Tier 1 Flash and what type of storage NFS or ISCSI?)



Carl Stalhood 👤

April 24, 2015 at 11:20 am

I usually give the storage team a guesstimate of the IOPS and disk space requirements and let them figure out a solution. As long as the shared storage meets the IOPS and disk space requirements then it should work. I recommend working with a Citrix Partner to assess the requirements and design a solution.



Matheen

April 24, 2015 at 11:10 am

Hi Carl

What is the recommended storage to store PVS write cache in PVs 7.X?



Carl Stalhood 👤

April 24, 2015 at 11:16 am

When caching to RAM with overflow to disk, the storage location for write cache is not as critical as it used to be. Any shared storage should be fine as-

suming it can handle the IOPS. See <http://blogs.citrix.com/2014/07/07/turbo-charging-your-iops-with-the-new-pvs-cache-in-ram-with-disk-overflow-feature-part-two/> for some IOPS estimates. I'm not a fan of local (non-shared) storage unless you're comfortable with its reduced functionality.



Tyus

May 12, 2016 at 8:28 am

Carl,

Question regarding VDA specs/sizing for Shared Desktops. Here's a breakdown of what im currently spec'd at and what the desktops are mainly used for. Any suggestions/adjustments would be greatly appreciated.

Using PVS 7.7

Server 2008 R2

14gb RAM

4vCPUs

60gb C:

30gb Write Cache

Mainly the desktops are used for mostly Outlook, Word & Excel (with add-ins) and programs that are used for document management. So majority of the workload is going to be via those apps.

How does my sizing look?



Tyus

May 12, 2016 at 8:29 am

Im hoping to get around 15-20 users per Shared Desktop. Is this reasonable?



Carl Stalhood 👤

May 12, 2016 at 8:31 am

4 vCPUs is typical for 2008 R2.

15-20 is not unreasonable. But it depends on the apps and how they are used.



Tyus

May 12, 2016 at 8:32 am

Also using Cache to RAM with overflow to disk 2048MB.
