Carl Stalhood

Filling gaps in EUC vendor documentation

Provisioning Services – Console Config

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

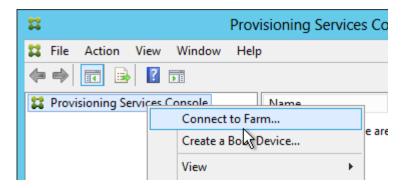
11 Comments

Navigation

- Launch the Console
- Farm Properties
- Server Properties
- vDisk Stores
- Device Collections
- Prevent "No vDisk Found" PXE Message

Launch the Console

- 1. Launch the Provisioning Services Console.
- 2. Right-click the top-left node and click **Connect to Farm**.

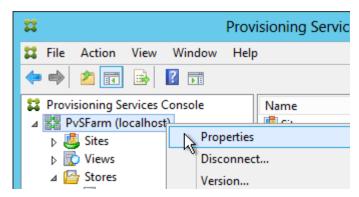


3. Enter **localhost** and click **Connect**.

| Connect to Farm | | | | | | |
|---|--|--|--|--|--|--|
| Server Information | | | | | | |
| Name: localhost 🗸 | | | | | | |
| (Name or IP address of a server on the farm.) | | | | | | |
| Port: 54321 | | | | | | |
| (Port configured for server access.) | | | | | | |
| Credentials | | | | | | |
| Use my Windows credentials to login | | | | | | |
| O Use these credentials to login | | | | | | |
| Usemame: | | | | | | |
| Domain: | | | | | | |
| Password: | | | | | | |
| Save password | | | | | | |
| Auto-login on application start or reconnect | | | | | | |
| Connert Cancel Help | | | | | | |

Farm Properties

1. Right-click the farm name and click **Properties**.



2. On the **Groups** tab, add the **Citrix Admins** group.

| Farm Properties | | | | | | | | | |
|---|------------|--------|-------------|------------|---------------|--------|---------------|----|--|
| General | Security | Groups | Licensing | Options | vDisk Version | Status | Problem Repor | rt | |
| All the Security <u>G</u> roups that can be assigned access rights: | | | | | | | | | |
| | 0.0001/030 | | umma | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | <u>A</u> dd | <u>R</u> e | move | | | | |

3. On the **Security** tab, add the **Citrix Administrators** group to grant it full permission to the entire Provisioning Services farm. You can also assign permissions in various nodes in the Provisioning Services console.

| | | | Far | m Prop | erties | | | x |
|---------|--------------|--------------|----------------|---------|---------------|--------|--------------|----|
| General | Security | Groups | Licensing | Options | vDisk Version | Status | Problem Repo | rt |
| Gro | oups with 'F | arm Admir | iistrator' acc | ess: | | | | |
| CO | p.local/Use | ers/Citrix A | dmins | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | Add | Re | move | | | |

- 4. On the **Options** tab, check the boxes next to **Enable Auditing** and **Enable offline database support**.
- 5. In Provisioning Services 7.9 and newer, notice the new **Send anonymous statistics and usage information** checkbox.

| | Farm Properties | | | | | | | | |
|---------|---|-----------|------------------------------|---------------|---------------|--------|---|--|--|
| General | Security | Groups | Licensing | Options | vDisk Version | Status |] | | |
| | Ad | | d vices to this | <u>s</u> ite: | | | | | |
| | PvSSite V Note: A collection with a template target device must be specified for the site where the auto-add will take place. | | | | | | | | |
| | Auditing Enable <u>a</u>uditing | | | | | | | | |
| | Offline database support Enable offline <u>d</u> atabase support | | | | | | | | |
| | _ | d anonymo | Improvemer ous statistics | - | e information | | | | |

6. In the **Problem Report** tab, you can enter MyCitrix credentials.

| | Farm Properties | | | | | | | | |
|----|-----------------|-------------|-------------|---------------|-------------|-------------------|--------|----------------|--|
| Ge | eneral | Security | Groups | Licensing | Options | vDisk Version | Status | Problem Report | |
| | Confi | gure your I | My Citrix c | redentials in | order to si | ubmit problem rej | ports. | | |
| | <u>M</u> y C | itrix Usema | ame: | | | | | | |
| | <u>P</u> ass | word: | | | | | | | |
| | Confi | rm Passwo | ord: | | | | | | |
| | Note | : The pass | word will r | not be saved | l as a toke | n will be acquire | d. | | |

- 7. Click **OK** to close *Farm Properties*.
- 8. Click **OK** when prompted that a restart of the service is required.

| | Provisioning Services Console | x |
|---|--|---|
| 0 | You will need to restart the Provisioning Services Stream Service on each server for the offline database support change to take effect. | |
| | - CK | |

Server Properties

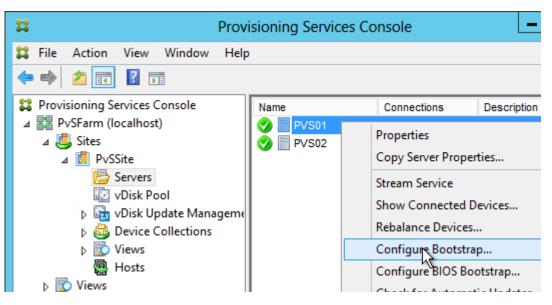
From Citrix Blog Posts <u>Updated Guidance on PVS Ports and Threads</u> and <u>PVS Secrets (Part 3) – Ports</u> & Threads:

Q: What is the optimum number of ports for the Stream Service?

A: The best Stream Process performance is attained when the threads per port is not greater than the number of cores available on the Provisioning Server. For best performance, use the following formula:

of ports x # of threads/port = max clients

1. Expand the site and click **Servers**. For each Provisioning Server, right-click it, and click **Con-***figure Bootstrap*.



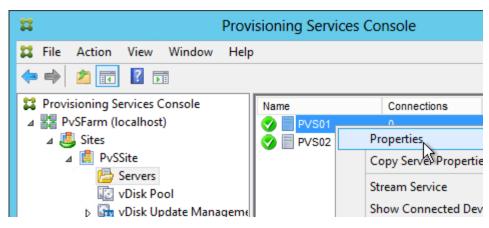
2. Click **Read Servers from Database**. This should cause both servers to appear in the list.

| Configure Bootstrap | | | | | | | | |
|-------------------------------------|-------------------------|-------------------------------------|--------------------------------|--|--|--|--|--|
| General Options | | | | | | | | |
| <u>B</u> ootstrap file: | ARDBP32.BIN | ~ |] | | | | | |
| Server IP Address 192.168.123.22 | Server Port 6910 | Device Subnet Mask 255.255.255.0 | Device Gateway 0.0.0.0 | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| <u>A</u> dd | <u>E</u> dit <u>R</u> e | Move | e <u>U</u> p Move <u>D</u> own | | | | | |
| | Read Ser <u>v</u> | ers from Database | | | | | | |

3. On the **Options** tab, check the box next to **Verbose mode**.

| Configure Bootstrap | x |
|---|---|
| General Options | |
| Verbose mode (displays diagnostic information) Interrup safe mode (check this if the device hangs during boot) | |
| Advanced Memory Support | |
| Network recovery method | |
| Restore network connection | |
| ○ Reboot to Hard Drive after 10 🔆 seconds | |

4. Right-click the server, and click Properties.



- 5. Check the box next to Log events to the server's Windows Event Log.
- 6. Click Advanced.

| | | | S | erver Proper | ties | | | x |
|-----------------|-------------|------------|-------------|-----------------|------|----------------|--------------|---|
| General | Network | Stores | Options | Problem Report |] | | | |
| <u>N</u> am | ie: | PVS0 | 1 | | | | | |
| Des | cription: | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Pov | ver Rating: | 1.00 | | | | | | |
| • | Log events | s to the s | erver's Wir | ndows Event Log | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Ad <u>v</u> anc | ed | | | <u>0</u> | К | <u>C</u> ancel | <u>H</u> elp | |

7. Increase the threads per port. The number of threads per port should match the number of vC-PUs assigned to the server. Click **OK**.

| | Advanced Server Properties | x |
|---------------------------|----------------------------|----|
| Server Network Pa | acing Device | |
| Threads per port | | 1 |
| 1 | 8 🗘 threads per port | 60 |
| <u>B</u> uffers per threa | d | |

8. On the same tab are concurrent I/O limits. Note that these throttle connections to local (drive letter) or remote (UNC path) storage. Setting them to 0 turns off the throttling. Only testing will determine the optimal number. See http://blogs.citrix.com/2011/02/23/optimizing-pvs/ for more details.

| 0 | 0 🗘 transactions | 128 |
|--------------|---------------------------------|-----|
| Remote concu | urrent I/O limit (transactions) | |
| | | 1 |
| | 2 | 1 |
| 0 | 0 🛟 transactions | 128 |

9. On the **Network** tab, change the *Last port* to 6968. Note that port 6969 is used by a different Provisioning Server component. Click **OK** when done.

| Server Properties | x |
|--|---|
| General Network Stores Options Problem Report | |
| Streaming IP addresses 10.2.2.22 Add Edit | |
| Ports Enter the first and last ports to use for server communications. | |
| (Note: There must be at least 5 ports in the range.) First port: 6910 C Last port: 6968 | |
| Management IP IP address used for management communications between servers. 10 2 2 2 22 | |
| Note: Use the ConfigWizard on the server to change this value. | |

- 10. Repeat for the other servers.
- 11. Click **Yes** if prompted to restart the stream service.

| Provisioning Services Console | x |
|--|---|
| The stream service must be restarted for the new settings to take effect. Restart the stream service now? | |
| Ves No | |

12. If you get an error message about the stream service then you'll need to restart it manually.

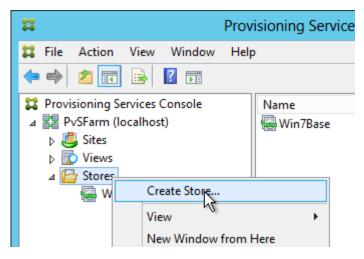
| | Provisioning Services Console | ĸ |
|----------|--------------------------------|---|
| | Error PVS02 | |
| The Serv | ver did not stop successfully. | |
| | ОК | |

| 9, | Services |
|-------------------------------|-------------------------------|
| File Action View Help | |
| | Þ |
| 🔅 Services (Local) 🛛 Name | Description Status Startu |
| 🔍 Citrix PVS Ramdisk Server | Citrix PVS R Manua |
| 🔍 Citrix PVS Soap Server | Citrix PVS S Running Auton |
| 🔅 Citrix PVS Stream Service – | Citeria DVC St Prinning Auton |
| 🔍 Citrix PVS TFTP Service | Start ig Auton |
| 🔍 Citrix PVS Two-Stage Boot | Stop ig Auton |
| 🔍 CNG Key Isolation | Pause Manua |
| 🔍 COM+ Event System | Resume ig Auton |
| 🔍 COM+ System Application | Restart N 19 Manua |
| 🔍 Computer Browser | Disabl |
| 🔍 Credential Manager | All Tasks 🕨 Manua |
| 🔍 Cryptographic Services | Refresh ng Auton |

Create vDisk Stores

To create additional vDisk stores (one per vDisk / Delivery Group), do the following:

- 1. On the PvS servers, using Explorer, go to the local disk containing the vDisk folders and create a new folder. The folder name usually matches the vDisk name. Do this on both PvS servers.
- 2. In the Provisioning Server Console, right-click **Stores**, and click **Create Store**.



3. Enter the name for the vDisk store, select an existing site and switch to the **Servers** tab.

| | Store Properties |
|---------|---|
| General | Servers Paths |
| | |
| _ | lame: |
| W | /in7SAP |
| D | escription: |
| | |
| | |
| | |
| | |
| | No. of a second s |
| | ite that acts as the owner of this store: |
| P | vSSite 🗸 🗸 |
| | 2 |
| | ~ |

4. Check the boxes next to the Provisioning Servers.

| Store Properties | x |
|----------------------------------|---|
| General Servers Paths | |
| Site: | |
| PvSSite | ~ |
| Servers that provide this store: | |
| | |
| | |
| | |

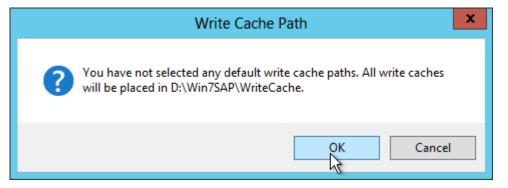
5. On the **Paths** tab, enter the path for the Delivery Group's vDisk files. Click **Validate**.

| Store Properties | x |
|-----------------------------------|-----------|
| General Servers Paths | |
| Default store path: D:\Win7SAP | |
| Default write cache paths: | Add |
| | |
| | Edit |
| | Remove |
| | Move Up |
| | Move Down |
| | |
| | |
| | |
| Validate OK Cancel | Help |

6. Click **OK** twice.

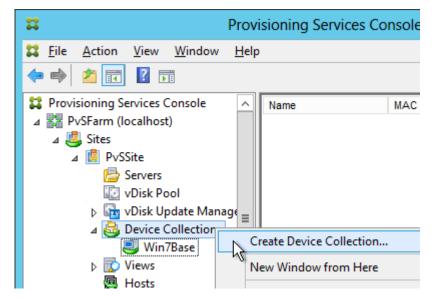
| | Validate Store Paths | | | |
|--------------------|----------------------|--------------------|-----------------|--|
| /alidating paths f | for store: Win 75 | SAP | | |
| | | | | |
| Site | Server | Path | Status | |
| Site PvSSite | Server PVS01 | Path D:\Win7SAP | Status Valid | |

7. Click **Yes** when asked for the location of write caches.



Create Device Collections

1. Expand the site, right-click **Device Collections**, and click **Create Device Collection**.



2. Name the collection in some fashion related to the name of the Delivery Group and click OK.

| Device Collection Properties | | | | | | x | |
|------------------------------|-------------|----------|---|--|--|---|--|
| General | Security | Auto-Add | | | | | |
| N | Name: | | | | | | |
| W | in7SAP | | | | | | |
| D | escription: | | | | | | |
| | | | | | | | |
| | | | т | | | | |
| | | | L | | | | |

If you are migrating from one PvS farm to another, see Kyle Wise How To Migrate PVS Target Devices.

Prevent "No vDisk Found" PXE Message

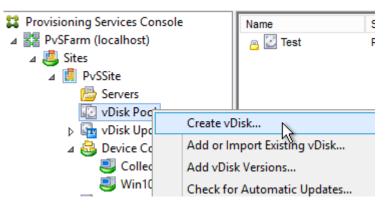
If you PXE boot a machine that is not added as a device in the PvS console, then the machine will pause booting with a "No vDisk Found" message at the BIOS boot screen. Do the following to prevent this.

1. Enable the **Auto-Add** feature in the farm Properties on the **Options** tab.

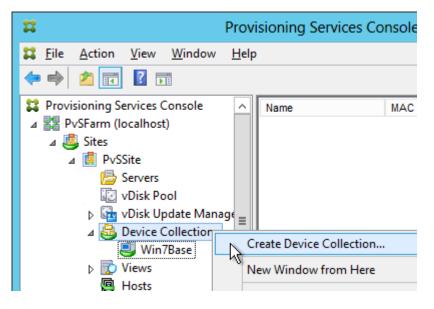
| # | | | | | Provisioning Servic |
|----|------|--------------------------|---------|--------|---------------------|
| 11 | File | Action | View | Window | Help |
| \$ | | 2 | ₿ | ? | |
| ** | | sioning Se vSFarm (lo | | | Name |
| | | Sites | ocainos | | perties |
| | ۵ 🖾 | Views | | Disc | onnect |
| | ⊿ 🧧 | Stores | | Vers | ion |
| | | | | | |

| Farm Properties | | | | | | | x | |
|-----------------|--|-------------|--------------|--------------|---------------|--------|--------------|-----|
| General | Security | Groups | Licensing | Options | vDisk Version | Status | Problem Repo | ort |
| | Auto-Add Image: Auto-add Add new devices to this site: | | | | | | | |
| | PvSSite V | | | | | | | |
| | Set a te | mplate targ | et devise fo | r Collection | 1. | | | |

2. Create a small dummy vDisk (that is 100 MB).



3. Create a dummy Device Collection.



| | Device Collection Properties | | | | | |
|---------|------------------------------|----------|--|---|--|--|
| General | Security | Auto-Add | | | | |
| | ame: | | | 1 | | |
| Du | immy | | | | | |
| De | escription: | | | 1 | | |
| | | | | | | |
| | | | | | | |
| | | | | L | | |

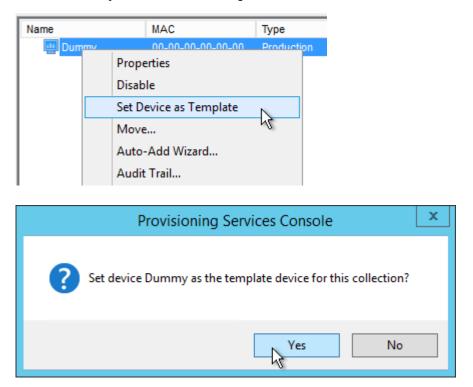
4. Create a dummy device and set it to boot from Hard Disk. Assign the dummy vDisk.

| Provisioning Services Con | sole | Name | MA |
|---------------------------|-------------|-----------|----|
| ⊿ 🋂 P∨SFarm (localhost) | | | |
| 🛛 遇 Sites | | | |
| ⊿ 闅 P∨SSite | | | |
| 🔚 Servers | | | |
| 🐷 vDisk Pool | | | |
| ⊳ 🔂 vDisk Updat | te Manageme | | |
| 🛛 🍰 Device Colle | ections | | |
| I Collectio | on | | |
| 🧾 Win10 P | vS | | |
| Tummy 🕘 Dummy | l | I | |
| Views | Propert | ies | |
| 🚇 Hosts | Create [| Device | |
| ▷ I Views | Auto-A | dd Wizard | |
| ⊿ 🎦 Stores RDSH | Audit T | rail | |
| Win10 | Target [| Device | • |

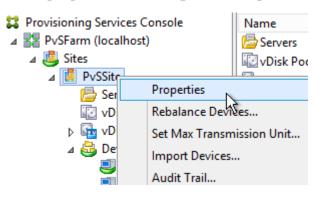
| Target Device Properties | | | |
|--------------------------|------------------------------------|--|--|
| General vDisks | Authentication Personality Logging | | |
| <u>N</u> ame: | Dummy | | |
| Description: | | | |
| | | | |
| <u>T</u> ype: | Production V | | |
| <u>B</u> oot from: | Hard Disk | | |
| MAC: | 00 - 00 - 00 - 00 - 00 | | |
| Port: | 6901 | | |
| Class: | | | |
| Disable this device | | | |

| Target Device Properties | | | |
|---|----------|--|--|
| General vDisks Authentication Personality Logging | | | |
| vDisks for this Device: | | | |
| RDSH\Dummy | Add | | |
| 5 | Remove | | |
| | Printers | | |
| Options | | | |
| List local hard disk in boot menu | | | |

5. Set the dummy device as the Template.



6. In site properties, on the **Options** tab, point the Auto-Add feature to Dummy collection.



| Site Properties | | | | |
|--|--|--|--|--|
| General Security MAK Options vDisk Update | | | | |
| Auto-Add If the auto-add feature is enabled (in the farm properties), select the device collection that will receive the new target devices for this site. | | | | |
| Add new devices to this collection: | | | | |
| Dummy V | | | | |
| A template target device is set for Dummy. | | | | |
| Seconds between vDisk inventory scans: 60 | | | | |

Related Topics

- Prepare a Master Target Device
- Back to Provisioning Services



🛅 March 7, 2015 🔺 Carl Stalhood 🕒 Provisioning Services

11 thoughts on "Provisioning Services – Console Config"



gingerdazza

August 15, 2016 at 8:37 am

Hi Carl

Why wouldn't anyone NOT enable the offline DB support? (Why isn't it enabled by default)?



July 25, 2016 at 3:45 am

Increase the threads per port. The number of threads per port should match the number of cores in the server (including hyperthreading).

Do you mean the cores of the provisioning server Virtual Machine or really the physical vSphere host?

Carl Stalhood 👗

July 25, 2016 at 5:42 am

Some PvS servers are physical. But yes, I meant the VM.



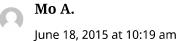
July 20, 2015 at 12:22 pm

Carl, when going to a server, and clicking Show Connected Devices, do you know of a way to export that data? I was thinking with MCLI-GET, but I don't see the option.



Carl Stalhood 👗 July 21, 2015 at 5:54 am

Maybe MCLI Get DeviceStatus? There should be a serverIpConnection column. You can probably filter the command to only retrieve devices for a specific server.



Mo A.

Carl,

Can you find the XenDesktop Controller address in the PVS console? if not where will that information be displayed?



Carl Stalhood 🛔

June 18, 2015 at 10:21 am

PvS only talks to Controllers when you run the XenDesktop Setup Wizard. Or are you asking about the Controllers that the VDAs are registering with? If so, check the ListOfDDCs registry key on the VDA.

Mo A. June 18, 2015 at 4:16 pm

If we were going to run XenDesktop Setup Wizard in PvS console and didn't have the information on the controller host or IP where would the place be to look?



Carl Stalhood 👗

June 18, 2015 at 4:35 pm

 $Check\ HKEY_CURRENT_USER\Software\Citrix\ProvisioningServices\VdiWiz-ard$



Matheen

June 15, 2015 at 5:46 am

Hi Carl

Thanks for excellent article. I see that you are using local folder for PVS vDisk. I have a question regarding that

I am doing design of PVS. I have 3 PVS servers and will be hosting around 5 vdisks for now (standard mode). I have not been given information on if CIFS is available or not.

Where can I place these vDisks. I can think of two options and would like to know which one is better in your opinion.

Option 1

Place vDisks locally on each PVS server. Configure DFS-R in each PVS and let it synchronise the vdisks across PVS servers. This will avoid single point of failure but require extra space to store vDisks in each server.

Option 2

Place vDisk on CIFS SMB 3.0 share. All updates gets stored in share to which all PVS are connected to. This could be single point of failure but require less space.

I also read that by default PVS streams from disk for first target and cache vDisk contents locally in Server RAM and subsequent streams are served from PVS server RAM. Does this happens for both options?

Thanks Matheen



Carl Stalhood 🛓 June 15, 2015 at 6:06 am

 This is the traditional configuration because it provides maximum availability, maximum performance, and less network activity. But yes, extra disk space.
 Where I've seen SMB shares the performance seems to be lower than local storage. Also, older versions of PvS did not cache SMB vDisks but newer versions should now cache them.

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