XenServer Demo/Evaluation System

Technical Setup Guide

December 2009

Overview

This document describes the implementation of a simple demonstration and evaluation environment for Citrix XenServer. The environment will consist of two physical XenServer hosts as well as shared storage. Instead of requiring a true SAN for shared storage, shared storage will be implemented using a VM on one of the XenServer hosts. With this setup, we will be able to exercise a number of the useful features of XenServer—including VM creation using templates, Resource Pools, XenMotion live migration, and High Availability—all without the requirement for SAN infrastructure. In addition, this environment provides an excellent platform on which to show XenApp running on XenServer, using the Microsoft VHD-based XenApp Evaluation Virtual Appliance.

Section 1 describes the initial setup of two XenServer hosts and the OpenFiler VM for virtual disk and ISO storage. This enables capabilities like shared storage, resource pools, and XenMotion live migration to be demonstrated.

Section 2 is optional and describes how to configure an iSCSI storage repository needed for configuration of High Availability, a feature provided in Essentials for XenServer, Enterprise Edition.

Section 3 is optional and describes how to import the XenApp Evaluation Virtual Appliance into XenServer. To do this, the instructions in section 1 need to be completed first. Completion of the instructions in section 2 would be optional in order to be able to use the XenApp Evaluation Virtual Appliance.

Section 1: Setting up XenServer Hosts, Shared Storage, and the Resource Pool

XenServer Hardware

XenServer laptop, workstation, or server x 2 (identical configuration recommended)
64-bit Intel VT or AMD-V processors
At least 2GB RAM
Recommend 100GB drive. (use 7200rpm minimum drives, if possible)
1Gbps Ethernet

Citrix XenServer Resource Pools and XenMotion require that each processor has identical feature flags. (check by typing "cat /proc/cpuinfo" at the server command line). Processors will need to be the same Manufacturer and Type but may be different speeds (e.g. 5130 and 5140). To avoid any potential issues, choose identical processors where possible. Please refer to http://www.citrix.com/xenserver/hcl for further hardware advice

XenCenter Management Console

Windows XP/Vista Laptop – XP, 1GB Ram, 1 Gbps Ethernet

Software

- Citrix XenServer Edition CDs (ISO's available here: http://www.citrix.com/freexenserver)
- Citrix Essentials for XenServer, Enterprise Edition NFR license (If you are a reseller, available free of charge from your distributor or channel manager), or 30 day trial license available from http://www.citrix.com/xenserver/try.

Infrastructure

Access to Internet is only needed to be able to download the OpenFiler virtual appliance.

For an offline demo system, manually assigned static IP addresses for each physical and virtual server are recommended. This avoids the need to have network connectivity to a DHCP server when you are running the demo offline. If possible, use a range of addresses that are valid when connected to your company network. For example, this demo guide used 192.168.1.40 and 192.168.1.41 for the XenServer host IP addresses, and 192.168.1.42 for the OpenFiler VM.

Basic Installation

Follow the normal procedure for installing XenServer as described in the XenServer Installation Guide document as well as the Getting Started with XenServer video. Configure each of your two XenServers with static IP addresses. Be sure to install the XenServers with the Linux support CD, as this will be required for installation of the OpenFiler VM used for shared storage.

XenServer and Essentials for XenServer licenses

To continue using XenServer for more than 30 days, you will need to activate your system. Once you fill out a simple activation form, you will receive a license via email. To use features such as HA, Performance History, and Alerting, you will need a license for Citrix Essentials for XenServer, Enterprise Edition. A 30-day trial license is available here: http://www.citrix.com/xenserver/try. Licenses need to be applied to all XenServer hosts individually.

Setting up the NFS-based Storage Repository for Virtual Disks

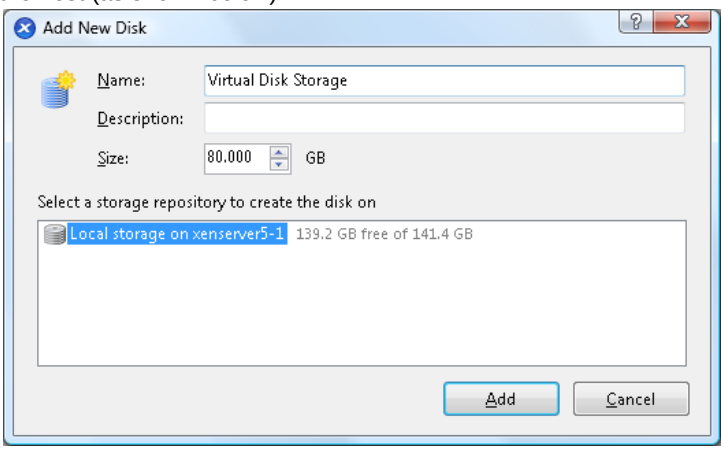
We will use an NFS-based SR for the XenServer demo/evaluation environment. Use of NFS will allow you to more easily import the VHD's from the XenApp Evaluation Virtual Appliance kit (section 3). This section describes how to

set up an NFS-based SR used for the heartbeat disk, using the freely available OpenFiler iSCSI software appliance. OpenFiler will be installed as a VM on your first server, which will eventually become the resource pool master server.

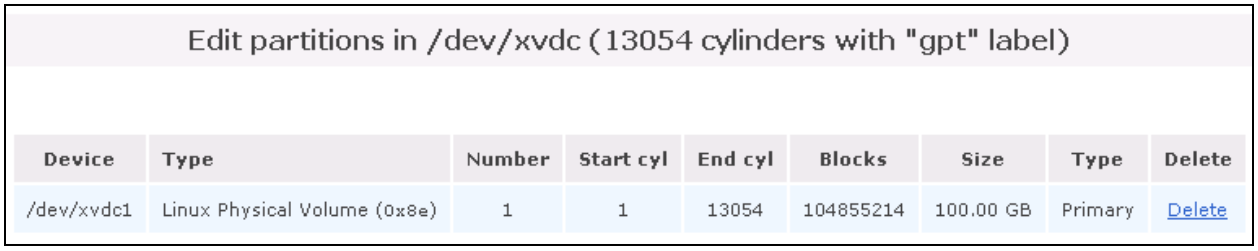
1. Download the OpenFiler XenServer Virtual Appliance (XVA) file (x86 version) from this web site: http://openfiler.com/community/download/
   The instructions that follow are based on version 2.3 of the OpenFiler system.
2. Use XenCenter (VM->Import) to import the OpenFiler XVA and create its virtual machine on your first XenServer.
   a. "Import Source" screen: browse for and select the .xva file you just downloaded
   b. "Home Server" screen: select the server which will become your resource pool master server (server 1)
   c. "Storage" screen: select local storage on the server
   d. "Network" screen: add default networks, as necessary
   e. "Finish" screen: leave defaults to allow the VM to boot up
3. Check the "Logs" tab and wait for the import to finish. After the OpenFiler XVA has been imported and its VM has booted up, go to the OpenFiler VM's console in XenCenter and note the URL where you will access the OpenFiler web-based management console in step 5. The console will state something like something like:

   ```
   Web Administration GUI: https://192.168.1.101:446/
   ```

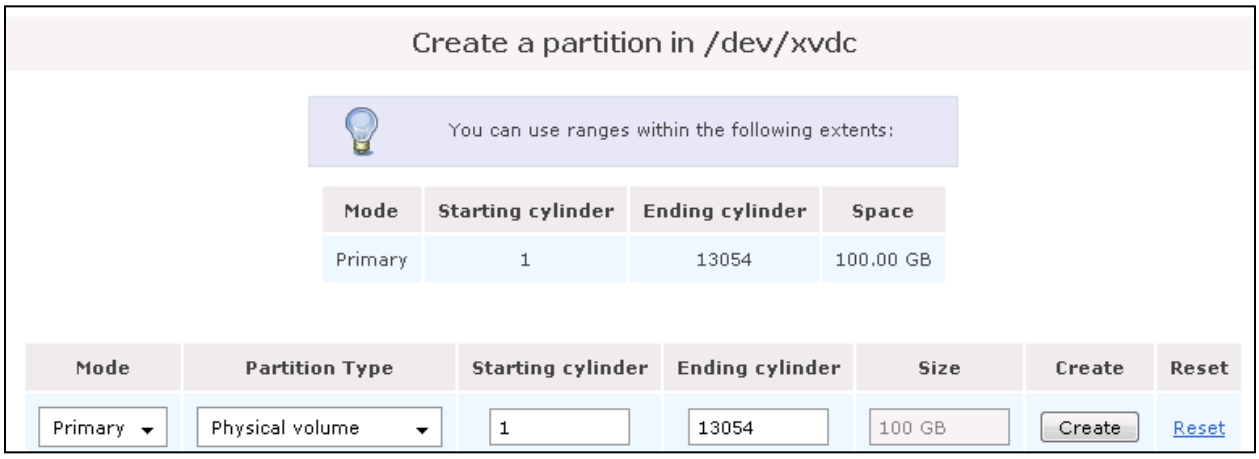
4. In XenCenter, add a disk to the OpenFiler VM. This will be used for storage of the VM disks. Select the OpenFiler VM in XenCenter, select the "Storage" tab, and click "Add." Name the disk "Virtual Disk Storage", size the disk sufficiently large for the storage of virtual machine disks (i.e. 80-100GB), and use the local storage from the host (as shown below).



5. Enter the URL from step 3 into your web browser to administer the OpenFiler system. You may need to add a certificate/security exception in your web browser to get to the login screen. Use a username of "openfiler" and a password of "password" to login. (if this doesn't work, check the install instructions on OpenFiler website for updated username/password)
   a. "System" Tab: Change your IP address to "static" and set IP, gateway, etc. accordingly. After you change the IP address, you will need to re-launch the web console using the new OpenFiler IP address.
   b. Click the "Volumes" tab. Under "Create a new volume group," click on the "create new physical volumes" link
      i. Under "Block Device Management" click the "/dev/xvdc" link. This block device should be the same size as the disk you added to the VM in step 4 above.
      ii. If the partition has already been created, you will need to delete it by clicking the "Delete" link. If the partition has not been created, skip to step iv.



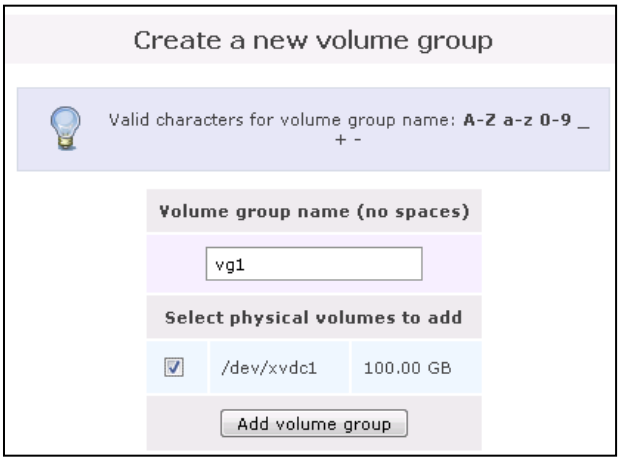
iii. After the partition has been deleted, scroll to the bottom of the page and click the "Reset " link (confirm the reset action when prompted)



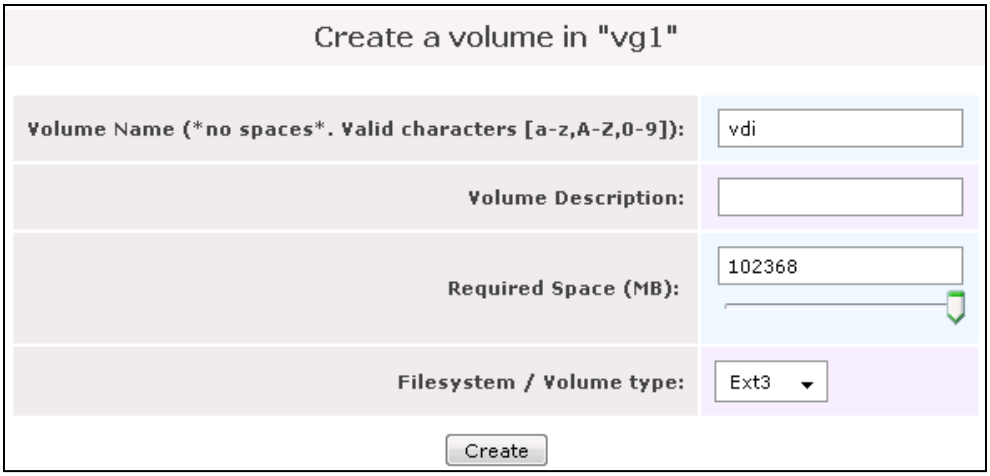
iv. Create the partition by clicking the "create" button.

c. Click the "Manage Volumes" link under the "Volumes Section" box on the right hand side of the page

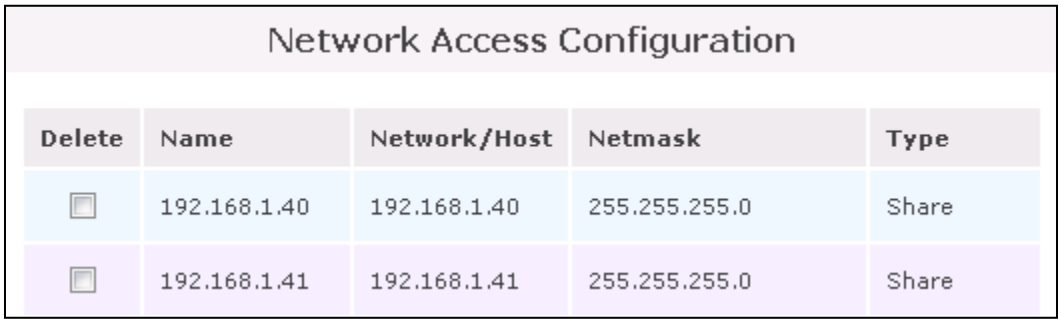
d. Create a new Volume Group as shown below:
   i. Volume Group Name: vg1
   ii. Check the box next to the physical volume
   iii. Click "add volume group"



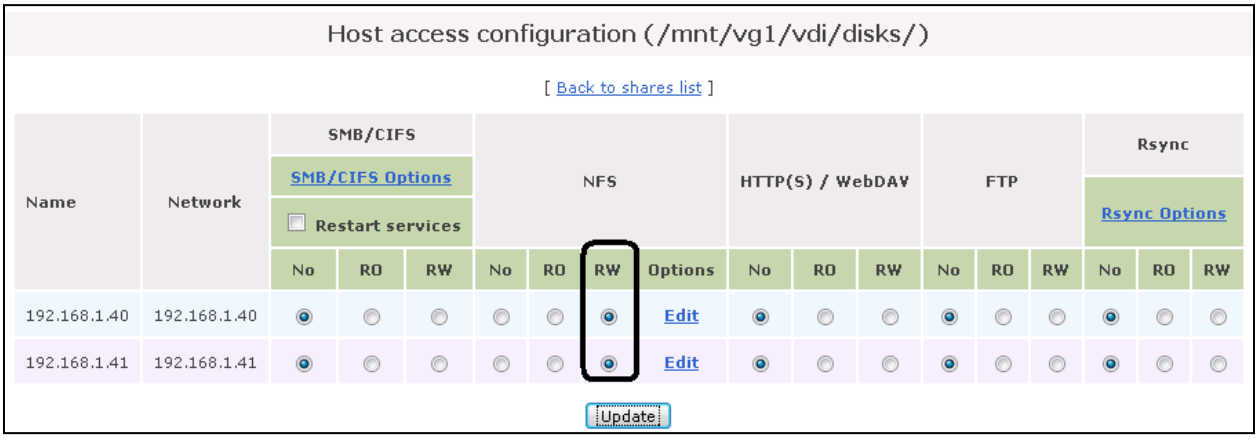
e. Click the "Add Volume" link under the "Volumes Section" box on the right hand side of the page. Select the "vg1" volume group you just created, in the drop-down box. Scroll to the bottom of the page and enter the volume slice information:
   i. Volume Name: vdi
   ii. Required space: move the slider all the way to the right
   iii. Filesystem / volume type: Ext3
   iv. Click "Create." This may take a minute to complete depending on the volume size.



f. Click the “Services” tab: Enable the NFSv3 server option.
g. Click the “Shares” tab. You should see a share called “vdi (/mnt/vol1/vdi”) listed.
h. Click on the “vdi” link and create a folder name called “disks”
i. Click on the “disks” link and make this the homes share.
j. You will see a notification telling you that you cannot configure network access control unless you create a list of networks in the Local Networks section. Click on the “Local Networks” text. This will send you back to the Network Configuration screen.
k. Under the “Network Access Configuration” enter the name, IP address, and netmask for all of the XenServer hosts that will access the storage. Use the type “share.”



l. Click on the “Shares” Tab again. Then click on the “disks” link again. You will see a screen for administering share security. Under the NFS section, select the “RW” radio button for each of your hosts (as shown below) and click “Update.”



You have now completed the creation of your NFS share that you will use for VM virtual disk storage.

Note: There is a known issue with OpenFiler 2.3 regarding activation of XenServer volume groups within the OpenFiler LV. Should you encounter this issue, you will have to change the configuration file on the OpenFiler VM.

Login to the OpenFiler VM console via XenCenter, using the username “root” (no password required)

Using a Linux text editor such as vi, you will need to update the /etc/rc.sysinit file in the OpenFiler VM. (Detailed instructions are below) Comment out lines 333-337, using the # symbol at the beginning of the lines below:

```
# if [ -x /sbin/lvm.static ]; then
#  if /sbin/lvm.static vgscan --mknodes --ignorelockingfailure > /dev/null 2>&1 ; then
#    action $"Setting up Logical Volume Management:" /sbin/lvm.static vgchange -a y -ignorelockingfailure
#  fi
# fi
```

For individuals unfamiliar with vi, here are detailed instructions:

1. Within XenCenter, in the console for the OpenFiler, type “vi /etc/rc.sysinit” at the command prompt
2. Within vi, press “page down” until you get to line 333 (line number is shown on the bottom of the screen)
3. Once the cursor is positioned on line 333, press the “i” key to enter insert mode
4. Type the “**#**” character at the beginning of lines 333, 334, 335, 336, and 337
5. Press the “Esc” key to exit “insert” mode
6. Type the “:” character (colon). On US keyboards, this is done by pressing and holding the “Shift” key and pressing the colon/semi-colon key.
7. Type “wq” and press enter to “write” and “quit” the vi text editor.

Create a Resource Pool and join your second server to that pool.

Ensure that you have installed your XenServer Enterprise Edition license file onto both servers. You can check this by looking in the License Details window of each server’s “General” tab. SKU: XenServer Enterprise Edition.

Make sure both of your XenServers appear properly in XenCenter. In XenCenter, select the New Pool icon and select a name for your pool. When asked to select the master server, choose the XenServer host on which you configured your OpenFiler NFS Server. Click Finish to create the new pool.

To add your second server to the pool, use your Mouse to drag and drop the second server onto the new pool icon that was created in the last step. Confirm that you want to do this and after a few moments, both your servers will appear within the pool.

Create the NFS-based Storage Repository (SR) for XenServer

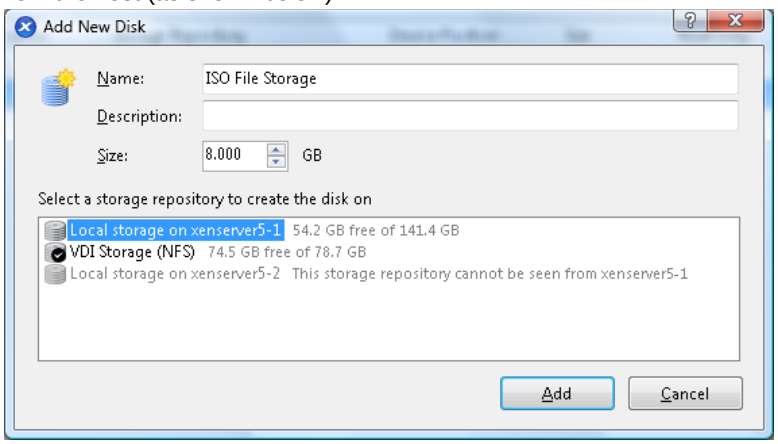
Within XenCenter, create your NFS SR. Select your Resource Pool on the left-hand pane, and then click on the “Storage->New Storage Repository” menu item.

1. Select “NFS” under “Virtual Disk storage” as the type.
2. Set Name as “VDI Storage (NFS)”
3. Set Share Name as 192.168.1.42:/mnt/vg1/vdi/disks (substitute your IP address for the OpenFiler VM if different). After clicking scan, you will be given the option to “Create a new SR.” Note that the share name is case sensitive, and needs to match what you set up earlier on the OpenFiler.
4. Click Finish. You now have an NFS-based SR on which you can install “agile” VM’s that can be enabled for live migration via XenMotion, as well as the XenApp EVA .vhd files (as described in section 3 of this document)

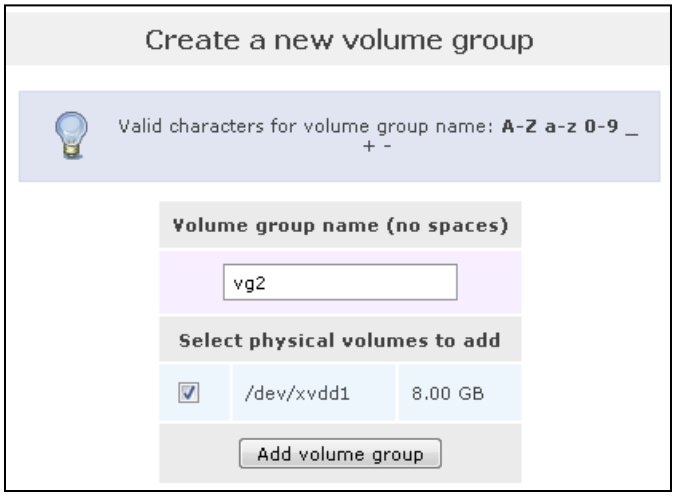
Setting up the CIFS share for ISO files

For creating new Windows virtual machines, a network-based ISO library can be used. In a demo environment, your OpenFiler VM is a good place to host this library.

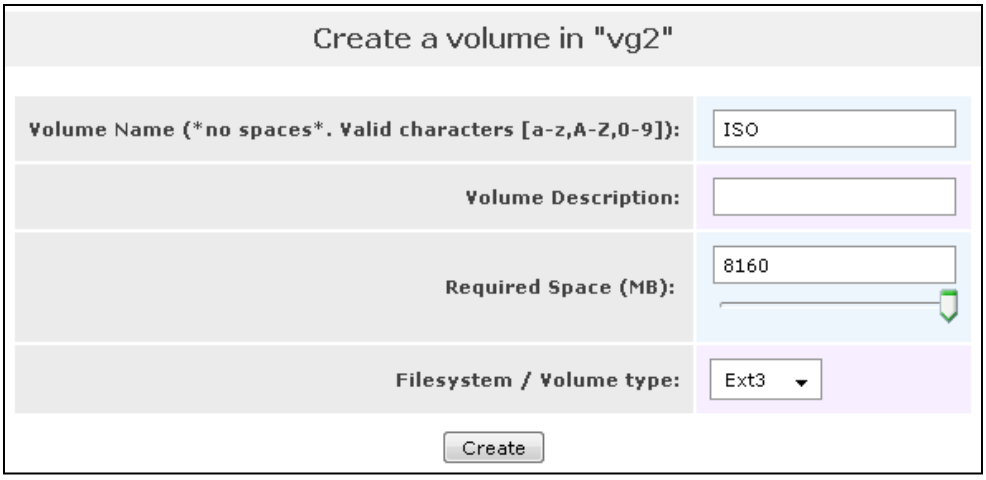
1. In XenCenter, add a disk to the OpenFiler VM. This will be used for storage of the ISO files. Select the OpenFiler VM in XenCenter, select the "Storage" tab, and click "Add." Name the disk "ISO File Storage", size the disk sufficiently large for the storage of virtual machine disks (i.e. 8 GB), and use the local storage from the host (as shown below).



2. Login to the OpenFiler web console, as was done previously.
   a. Click on the "Volumes" Tab, then the "Block Devices" link on the right hand side.
   b. Locate the disk you just added via XenCenter. It should appear as /dev/xvdc and be the size you specified in the previous step. Click the "/dev/xvdd" link
   c. If the partition has already been created, you will need to delete it by clicking the "Delete" link. If the partition has not been created, skip to step e.
   d. Delete the partition by clicking the "Delete" link and then "Reset." After clicking "Reset" confirm that you do want to reset.
   e. Create the new partition; keep the defaults and click "Create."
   f. Click on "Volume Groups" in the "Volumes Section" box. Create a new volume group called "vg2"

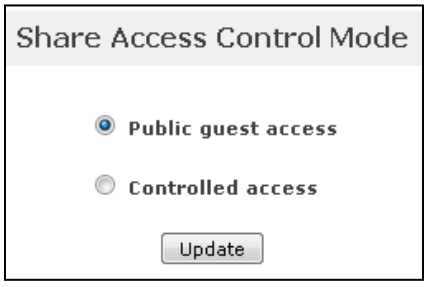


   g. Click on the "Add Volume" link under the "Volumes section" box on the right hand side of the page. In the drop-down box, select the "vg2" volume group you just created and click "change." Scroll to the bottom of the page and enter the volume slice information.
      i. Volume name: ISO
      ii. Required space: move the slider all the way to the right
      iii. Filesystem / volume type: Ext3
      iv. Click "Create." This may take a minute to complete depending on the volume size.

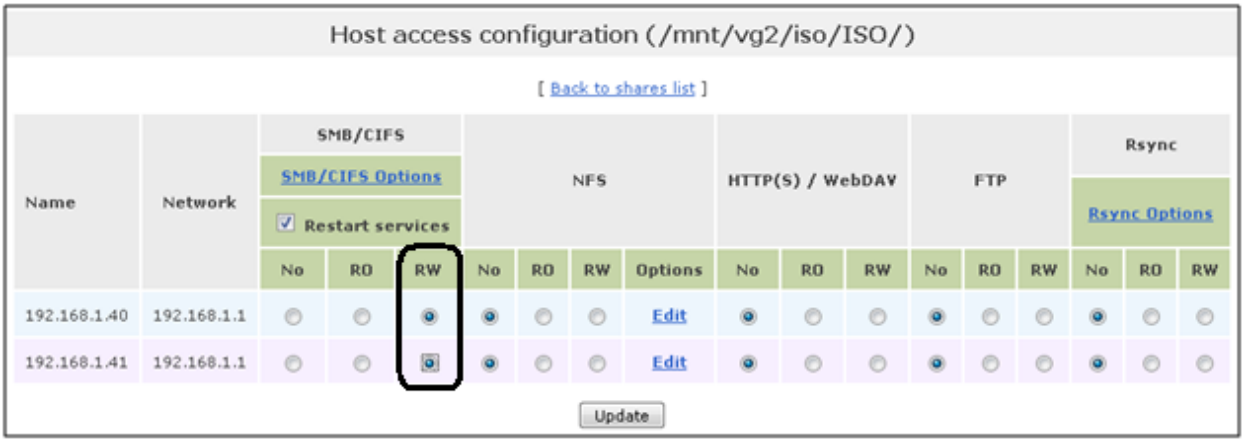


h. Click on the “Services” tab. Enable the “SMB / CIFS server” option.
i. Click on the “Shares” tab. You should see a share named “ISO” under vg2.
j. Click on the “ISO” link and create a sub-folder name “ISO”

k. Click on the “ISO (/mnt/vg2/iso/ISO)” link. Then click on the “Make Share” button
l. On the next screen, in the “Override SMB/Rsync share name” box, type “ISO” and click “Change.”
m. Under the “Share Access Control Mode” section, select the “public guest access” option and click “update.”



n. Under the “Host access configuration /mnt/vg2/iso/ISO/” section. Select the “RW” options under the “SMB/CIFS” section, check “Restart services”, and click the “update” button.



You now have a share called “iso” on your OpenFiler server that can be accessed using the UNC path \\192.168.1.42\iso (replacing your IP address accordingly, if different). You can copy any ISO files used for OS installation to this share.

Creating the ISO Storage Repository

Within XenCenter, create your SR for ISO files. Select your Resource Pool on the left-hand pane, and then click on the “Storage->New Storage Repository” menu item

1. Type: Select “Windows File Sharing (CIFS)” under “ISO Library.”
2. Location screen:
    a. Name: “CIFS ISO Library” (default)
    b. Share Name: \\192.168.1.42\iso
    c. Click “Finish”
3. Give it a name of like ISO-Storage

You have now completed the configuration of your ISO Storage Repository.

Booting and Shutting Down your Demo System

When you boot your demo system each server normally connects to any shared storage automatically. As the shared storage in our case is within a VM, it is not available at boot time. Each time you boot your system use the following steps to ensure connectivity

Boot Order:

1. Administration/XenCenter Workstation (if it is hosting your ISO library)
2. Pool Master Server
3. OpenFiler server VM
4. Pool Member Server

Booting the Pool Master Server

To make your shared storage boot automatically when you boot the master server, tick the Auto Start on Server Boot option from the OpenFiler VM’s “General” tab.

Connecting the Master Server to the Shared Storage

After your OpenFiler VM has booted, you may need to right-click your SR in the left-hand pane of XenCenter, and select the go to the master server’s console and click “Repair Storage Repository.” This is because the XenServer has booted before the shared storage was available.

Booting your Second XenServer

Boot your second server after the OpenFiler VM has started, and after you have repaired the NFS and ISO SR's. When the second XenServer boots, it will automatically plug in the ISO and NFS shared storage. If not, follow the same process on the second server as you did for the Master server to repair this.

Shutdown of the Demo System

Follow this order when you shut down your demo/evaluation system:

1. Disable High Availability (if configured as described in section 2)
2. Shut down all VM's (except the OpenFiler server)
3. Shut down pool member servers
4. Shut down OpenFiler NFS Server VM
5. Shut down Pool Master Server

Note: if you forget step 1, you may end up with "fenced" XenServers the next time you boot your demo systems due the activation of the HA host isolation process. The symptom of this will be a management interface without an IP address. To recover from this, you will need to go to your physical console and execute the following commands:

```
xe host-emergency-ha-disable
service xapi stop
service xapi start
```

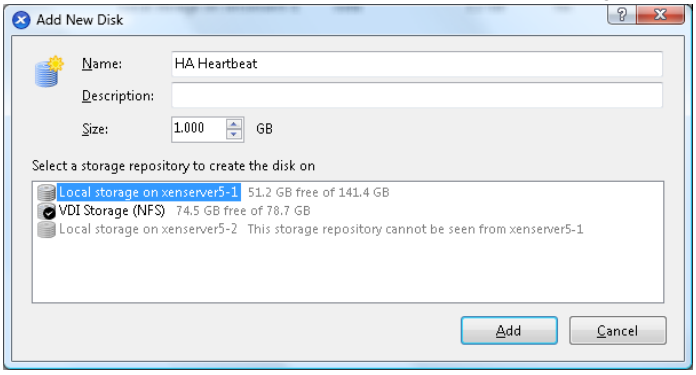
Section 2: Setting up iSCSI Storage Repository for High Availability

The High Availability (HA) feature in Essentials for XenServer, Enterprise Edition provides for automated recovery of virtual machines and the core management services in the event of an unexpected host failure. More detailed technical information on HA can be found here and here. There are several prerequisites for HA:

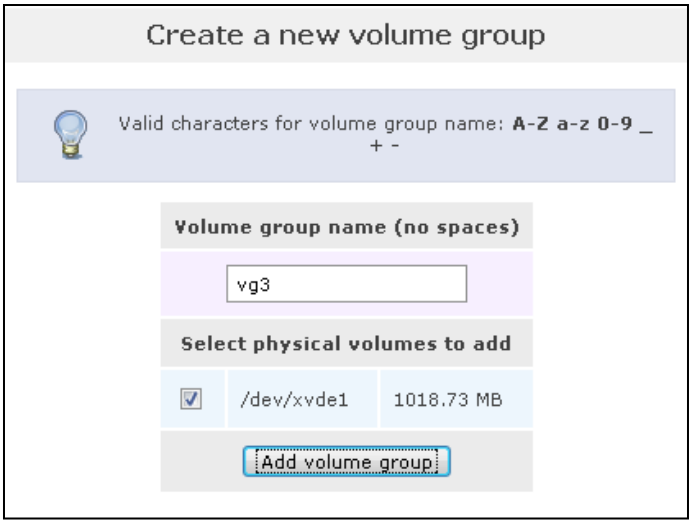
- All servers must be licensed with XenServer Enterprise or Platinum Edition
- VM disks must be located on shared storage (e.g. NFS as configured in Section 1, or any other type of shared storage)
- A small (500 MB) shared "heartbeat disk" must be configured on an iSCSI or Fibre Channel-based Storage Repository (SR).

This section describes how to set up an iSCSI SR used for the heartbeat disk, using the OpenFiler VM already installed. (Note that many other solutions can be used for the iSCSI SR, including hardware SANs like NetApp or Dell/EqualLogic as well as software solutions like DataCore or the NetApp software emulator)

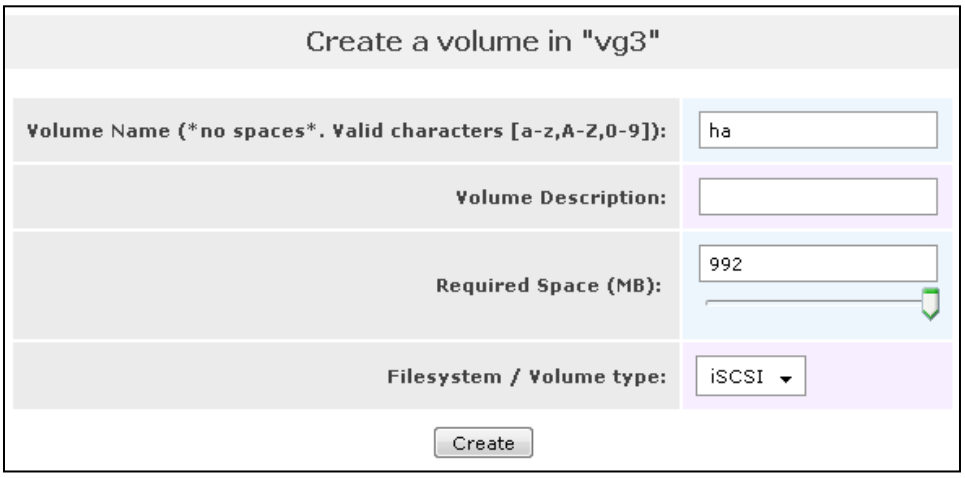
1. In XenCenter, add a new disk to the OpenFiler VM. This will later be configured as the HA heartbeat disk (iSCSI target). Select the OpenFiler VM in XenCenter, select the "Storage" tab, and click "Add." Name the disk "HA Heartbeat", size the disk at 1 GB, and use the local storage from the host (as shown below).



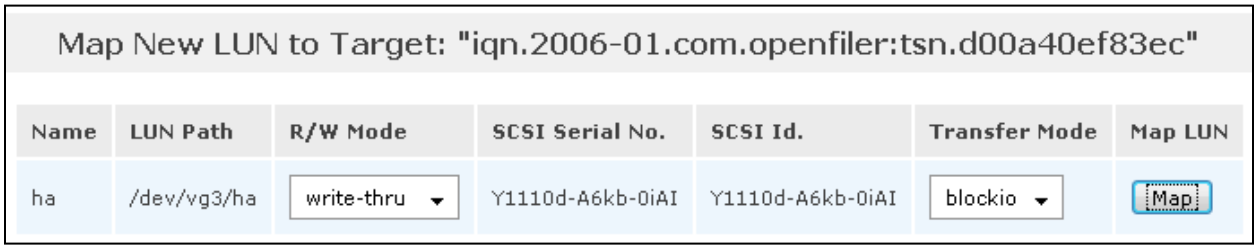
2. Login to the OpenFiler web console, as was done previously.
    a. Click on the "Volumes" Tab, then the "Block Devices" link on the right hand side.
    b. Locate the disk you just added via XenCenter. It should appear as /dev/xvde and be the size you specified in the previous step. Click the "/dev/xvde" link
    c. If the partition has already been created, you will need to delete it by clicking the "Delete" link. If the partition has not been created, skip to step e.
    d. Delete the partition by clicking the "Delete" link and then "Reset." After clicking "Reset" confirm that you do want to reset.
    e. Create the new partition; keep the defaults and click "Create."
    f. Click on "Volume Groups" in the "Volumes Section" box. Create a new volume group called "vg3"



g. Click the “Add Volume” link on the right-hand side of the page. Select volume group “vg3” under the “Select Volume Group” heading and click “change”
   i. Volume Name: ha
   ii. Volume Description: (leave blank)
   iii. Required Space: move slider all the way to the right
   iv. Filesystem/volume type: iSCSI
   v. Click “Create”



h. “Services” Tab: Enable the “iSCSI target server” option (not to be confused with the “iSCSI initiator” option.
i. Click on the “Volumes” tab. Then click on the “iSCSI Targets” link on the right-hand side.
j. Click on the “Target Configuration” tab. Under “Add new iSCSI Target” keep the default Target IQN and click “Add.”
k. Click on the “LUN Mapping” tab.
l. Keep the defaults and click “Map” to map the LUN.



You now have configured the iSCSI target on the OpenFiler, which can be used to create the iSCSI SR in XenCenter.

3. Within XenCenter, create your iSCSI SR to be used for the HA Heartbeat.
    a. On the “Storage” Menu, click “New Storage Repository”
    b. Select “iSCSI” under “Virtual Disk storage” as the type.
    c. Set Name as “HA Heartbeat (iSCSI)”
    d. Set the target host as 192.168.1.42 (or whatever the IP address of your OpenFiler VM is).
    e. Click “Discover IQNs” and the IQN you configured in step 2i should be found.
    f. Click “Discover LUNs” and the LUN you configured in step 2k should be found
    g. Click Finish. Click “Yes” when asked to format the disk. This will take several minutes to complete.
4. Now that you have an iSCSI SR, you can use it for configuration of High Availability.
    a. In XenCenter, click on your Resource Pool in the left-hand pane. Then click the “HA” tab in the right-hand pane
    b. Click the “Enable HA” button
    c. “Prerequisites” screen: Click Next
    d. “Heartbeat SR” screen: Select the “HA Heartbeat” SR you just created in step 3. Click Next.
    e. “HA Protection Levels.” If you have not already created VM’s, you will only see your OpenFiler VM. You will be able to adjust the HA policies later. Click Next. Click Finish.

It will take about a minute for HA to be enabled. Remember that you will need to disable HA before you shut down your demo systems, according to the instructions in the “**Booting and Shutting Down your Demo System”** paragraph in section 1.

Note: There is a known issue with OpenFiler 2.3 regarding activation of XenServer VG’s within the OpenFiler LV. To resolve this issue you will have to change the configuration file on the OpenFiler VM.

Login to the OpenFiler VM console via XenCenter, using the username “root” (no password required)

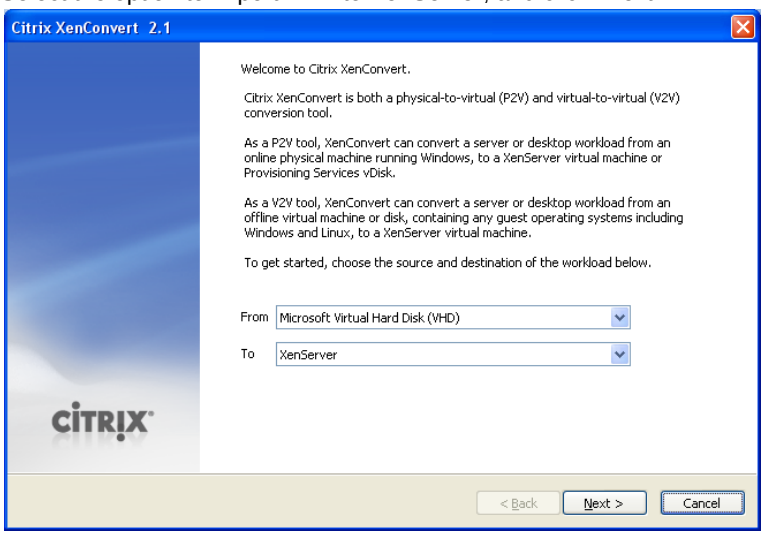
If you haven’t already done so (based on instructions in section 1 of this document), using a Linux text editor such as vi, you will need to update the /etc/rc.sysinit file in the OpenFiler VM. Comment out lines 333-337 (5 lines total), using the # symbol at the beginning of the lines below:

```
# if [ -x /sbin/lvm.static ]; then
#  if /sbin/lvm.static vgscan --mknodes --ignorelockingfailure > /dev/null 2>&1 ; then
#    action $"Setting up Logical Volume Management:" /sbin/lvm.static vgchange -a y -ignorelockingfailure
#  fi
# fi
```

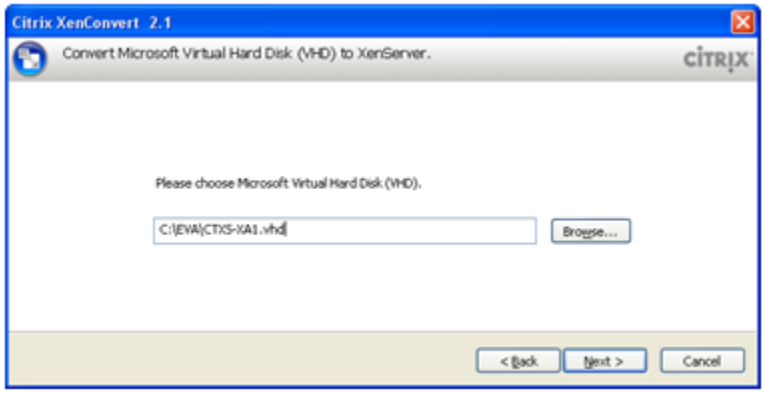
Section 3: Using Citrix Evaluation Virtual Appliances with XenServer

Citrix makes Evaluation Virtual Appliances (EVAs) available for several products, including XenApp, Citrix Essentials for XenServer, and Workflow Studio. In this section we will describe how to import the XenApp Evaluation Virtual Appliance VHD into an NFS-based storage repository (SR). Creating an NFS-based SR is described in section 1 of this document.

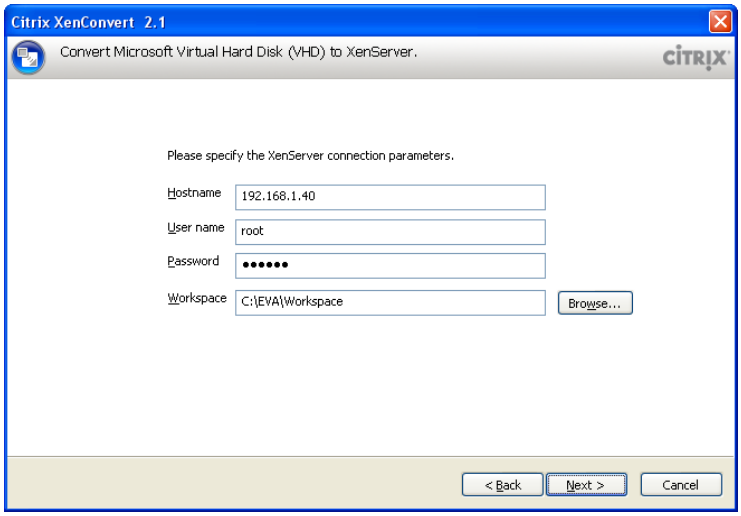
1. Download XenConvert 2.1 (or later) from mycitrix.com.
2. Install XenConvert 2.1 on any Windows desktop, server, or virtual machine. In this example we will use a Windows
3. From the system where you installed XenConvert, download the XenApp Evaluation Virtual Appliance from mycitrix.com: http://citrix.com/tryxenapp
4. Extract the VHD file from the XenApp Evaluation Virtual Appliance to a location (i.e. C:\EVA) on the system where you installed XenConvert.
5. Using XenConvert, follow the wizard for importing the VHD to XenServer:
    a. Select the option to import VHD to XenServer, and click “Next”



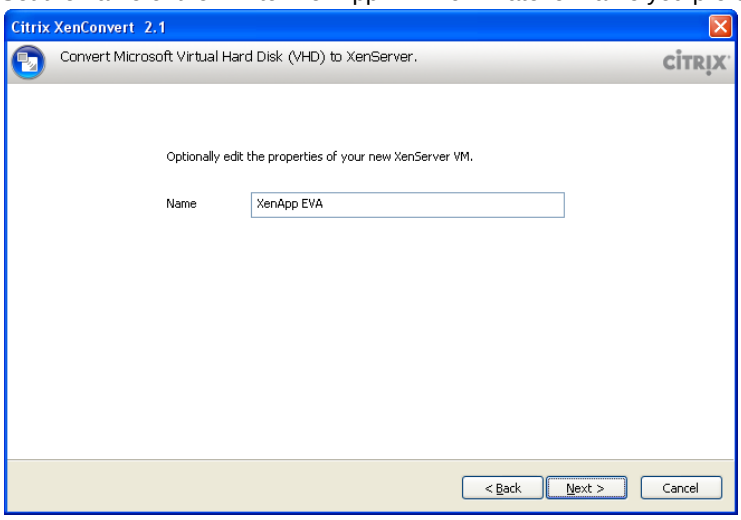
    b. Browse for the location where you put the VHD file in step 4 above



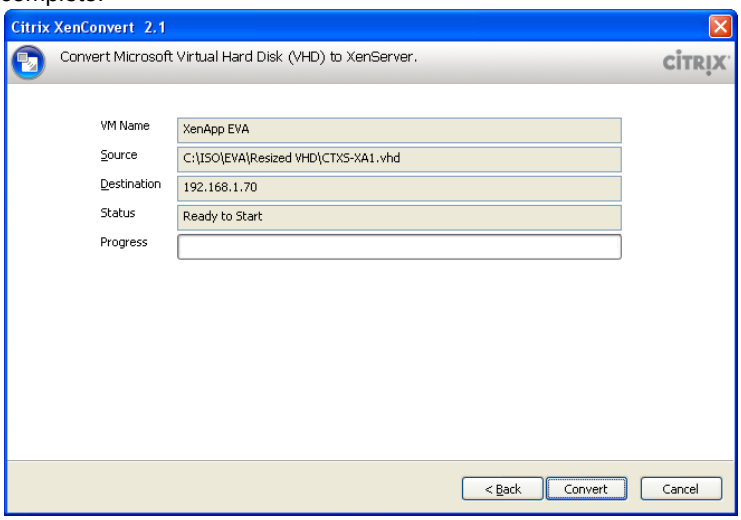
    c. Specify the XenServer host information. Note that XenConvert will import the VM and place it into the default SR specified in XenCenter. Be sure that the NFS SR is selected as the default, and that it has sufficient space available. A minimum of 20 GB of free space is required.



d. Set the name of the VM to “XenApp EVA” or whatever name you prefer



e. Click “Convert” to start the import process. The import process should take about 20 minutes to complete.



6. Once the VM has been imported, it can be booted. The first boot will take some time, and you may receive a number of “Service did not start” errors. These are benign. Cancel out of any “Found New Hardware” wizards.
7. Install Citrix XenServer Tools (XenCenter VM Menu->Install XenServer tools) in the VM and reboot.
8. Install the EVA licenses for XenApp, as prescribed in the EVA instruction documents.

Section 4: Demonstration Suggestions

Demo VMs

Configure a number of VMs based on your own preference. Windows VMs make great examples for using the XenMotion feature of XenServer Enterprise Edition. You may wish to put only your Windows Gold Master template and VM's you want to enable for XenMotion and HA, to avoid running out of hard drive space. Firstly, create a new Windows XP or 2003 VM on your NFS shared storage. Use the default memory of 256MB and disk size of 8GB and set the VM up with its own Static IP address. Make sure you install the Xen tools as per the setup documentation.

1. To make each new VM built from this template boot faster, right-click My Computer and within Properties select the "Advanced" tab. Within the Startup and Recovery settings, turn the "Time to display list" timeouts down to a few seconds.
2. Convert this VM to a "Gold Master" template for later use.
3. Optional: You can prepare your "Gold Master" for cloning with Microsoft sysprep before converting it to a template but it might make the demo longer and less snappy.
4. Create a new VM from your "Gold Master" template and call it something descriptive like "XenMotion". Make sure it's stored on the NFS storage, remove and recreate the NIC while the VM is online if your first Virtual NIC doesn't connect correctly to the network. Give this new VM a different IP address and Windows Computer Name to avoid any future conflicts when you're demonstrating the creation of a machine from template. This VM can now be moved between physical servers (see XenMotion Demos below).

VM Creation Demos

1. Use your shared ISO library to create a new VM from scratch. Walk through the first few screens of the Windows installation to show this is the same process at in the physical world.
2. Use your Windows "Gold Master" Template to provision new VMs. You can create a new VM during your demo in seconds. As NFS shared storage offers "Thin Provisioning" any VM that is created in XenCenter from your Windows template will simply be a "differencing drive" and will boot straight away.
3. Create a Debian Linux Server from the pre-built XenServer templates. Do not use the NFS shared storage for this VM because the VM creation is slower. Use a Local non-shared repository for this.

Snapshot and Cloning Demos

1. Select your Windows or Linux VM, and then go to the "Snapshots" tab in the right-hand pane. Click "Take Snapshot" and show that the process takes just a few seconds to complete.
2. Once the snapshot has completed, you can create a new VM from it by right-clicking the VM and selecting "New VM from Snapshot." Like the snapshot creation, this process will take just a few seconds.

Lifecycle Management Demos

After you have created a new VM from a template, you can hot-add new Virtual Network cards and Storage without stopping the VM. Open the Windows Disk Manager (Right-Click "My Computer" and choose "Manage"). Hot-Add a new drive from XenCenter and show how we auto-scan for this new storage and add it to the list of hard disks. Open your VMs Network Connections window (Right-Click "Network Neighborhood" and choose "Properties"). Hot-Add a new virtual NIC in XenCenter and see it pop up in Windows.

XenMotion Demos

With a Windows VM located on your shared storage, the possibilities for XenMotion demos are many.

1. Enable Remote Desktop Sharing in your "XenMotion" VM and do a XenMotion operation while an RDP session on your Admin PC is connected to the VM.
2. Run a Ping command within the RDP session to your local workstation to show that there is no loss of ping packets. (e.g. ping 192.168.1.43 –t)
3. Create a Windows CIFS share on the VM and copy 50/100MB of MP3/Video files to it from your Admin PC. XenMotion the machine in the middle of the file copy.
4. After you have copied some MPGs or MP3 files on the Windows XenMotion VM share, start up a Video and XenMotion the machine back again.

Another good XenMotion demo is to publish the c:\program files\Windows Media Player\wmplayer.exe on the XenApp server VM and run a video from the XenApp server. During the XenMotion of the XenApp VM, the video will continue to remain active and stream without interruption.

High Availability

With several VM's configured, you can enable HA and set policies on each of the VM's.

1. Start at least 2 VM's on the second XenServer host. Go to the HA configuration for the Pool. For the VM's running on the second XenServer host, set a "do not restart" policy for one, and a "Restart" policy for the other.

2. Once HA is configured, unplug the network cable on the second XenServer (ensure you unplug the one that is NOT running your OpenFiler VM)
3. After about a minute (required to sort out that the issue isn't transient), the HA policies will be applied and the VM's set with "Restart" policies will boot on the first XenServer.

Have questions or feedback? Please contact bill.carovano@citrix.com.