Microsoft® Virtual Labs

Hyper-V Edition

TechNet Virtual Lab: Implementing Citrix XenDesktop 4 on Hyper-V R2

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Implementing Citrix XenDesktop 4 on Hyper-V R2

Objectives

After completing this lab, you will be better able to:

- Capture a reference computer by using Citrix Provisioning Server
- Deploy a reference computer to a diskless computer
- Deploy multiple virtual desktops using Citrix Desktop Delivery Controller, SCVMM, and Hyper-V

Scenario

This lab is implemented using Woodgrove Bank. Woodgrove Bank is a local investment bank with many branch offices. Woodgrove Bank has decided to make use of Citrix XenDesktop together with Windows Server 2008 Hyper-V and System Center Virtual Machine Manager to deploy virtual desktop workstations to bank teller computers. In this lab you will work through the required steps. The environment for this lab is shown in the following section.

Prerequisites

- Familiarity with Windows PowerShell
- An understanding of virtual machine technology, specifically Hyper-V
- An understanding of PXE and network boot concepts
- An understanding of desktop imaging technology

Estimated Time to Complete This Lab

90 Minutes

Computers used in this Lab

DC-01

DDC-01-Client

PVS-01

ReferenceVM

VMHost-01

The password for the Administrator account on all computers in this lab is: **P@ssw0rd**

Exercise 1
Complete the XenDesktop Infrastructure Configuration

Scenario

The virtual machines in this lab have not been fully configured. For each virtual machine, the required software has been installed, but not configured. The installation steps were completed to save you time. Full installation of all software takes several hours and may require you to restart the computers several times.

In this exercise you will review the currently completed infrastructure configuration to become familiar with the components of XenDesktop. You will then complete the configuration by performing additional steps on several of the computers.

<table>
<tr><th>Tasks</th><th>Detailed Steps</th></tr>
<tr><td>Complete the following tasks on:
 DC-01
1. Configure DHCP Server Options - In this task you will configure DHCP to deliver the correct boot image when client computers are started using PXE booting.</td><td>
Note: Regarding User Account Control
Some steps in this lab may be subject to user account control. User account control is a technology which provides additional security to computers by requesting that users confirm actions that require administrative rights. Tasks that generate a user account control confirmation are denoted using a shield icon. If you encounter a shield icon, confirm your action by selecting the appropriate button in the dialog box that is presented.
Ensure that the DDC-01 and PVS-01 virtual machines are fully started before completing these tasks. Also, ensure you are logged on to DC-01 as Administrator with a password of Passw0rd!
a. On the Start menu, point to Administrative Tools and then click DHCP.
b. In DHCP, navigate to DC-01.woodgrovebank.com/IPv4/Scope [192.168.10.0] Network.
c. Click Scope Options.
d. On the Action menu, click Configure Options.
e. Configure the scope options as shown in the following table and then click OK:
<table>
<tr><th>Scope Option</th><th>Configured Value</th></tr>
<tr><td>066 – Boot Server Host Name</td><td>PVS-01.woodgrovebank.com</td></tr>
<tr><td>067 – Bootfile Name</td><td>ARDBP32.BIN</td></tr>
</table>
Note: The two DHCP options here are required to ensure that a bare metal client can PXE boot and connect to the provisioning server to receive an operating system.
ARDBP32.BIN is a Provisioning Server-specific boot file.
f. Close DHCP.
</td></tr>
<tr><td>2. Create an Organization Unit for XenDesktop</td><td>
Note: In this task you will create a new organizational unit in Active Directory. The desktop delivery controller will use this organizational unit to maintain Active Directory objects that are used by XenDesktop.
Ensure you are logged on to DC-01as Administrator with a password of Passw0rd!
a. On the Start menu, point to Administrative Tools and then click Active Directory Users and Computers.
b. In Active Directory Users and Computers, click Woodgrovebank.com and then on the Action menu, point to New and then click Organizational Unit.
</td></tr>
</table>

Tasks	Detailed Steps
	c. Type **XenDesktop** and then click **OK**. **d.** Close **Active Directory Users and Computers**.

Exercise 2
Creating a Virtual Desktop Farm

Scenario

In this exercise you will configure the Citrix Desktop Delivery Controller to ensure that the DDC farm is available during client configuration tasks.

Tasks	Detailed Steps
Complete the following task on: **DDC-01** **1. Complete the Configuration of the Desktop Delivery Controller**	***Note:*** *In this task you will complete the configuration of the Desktop Delivery Controller by running the Active Directory Configuration Wizard. This wizard run automatically at the end of the installation process, but was cancelled so you could perform the steps here.* *Begin this task logged on to DDC-01 as Woodgrovebank\Administrator using the password Passw0rd!* *You will need to use Hyper-V Manager on VDI-Infra to interact with this virtual machine.* **a.** On the **Start** menu, navigate to **All Programs/Citrix/Administration Tools** and then click **Active Directory Configuration Wizard**. ***Note:*** *This wizard is normally completed at the end of the Desktop Delivery Controller installation process. It was not completed at that time to enable you to complete it here.* **b.** In the **Active Directory Configuration Wizard**, click **Next**. **c.** On the **Configure Farm OU in Active Directory** page, click **Browse**, click **XenDesktop**, click **OK** and then click **Next**. ***Note:*** *The Desktop Delivery Controller will store information in Active Directory in this OU.* **d.** On the **Select Controllers** page, click **Add Local Machine**, click **Next** and then click **Finish**. **e.** Click **Close**. **f.** On the **Start** menu, navigate to **All Programs/Citrix/Management Consoles** and then click **Delivery Services Console**. **g.** On the **Welcome** page, click **Next**. ***Note:*** *This wizard configured the Access Management Console to connect to and display information on the XenDesktop farm.* **h.** On the **Select Products or Components** page, click **Next**. **i.** On **the Select Controllers** page, click **Add Local Computer** and then click **Next**. **j.** On the **Preview Discove**ry page, click **Next** and then when discovery is complete, click **Finish**. **k.** **Close** Citrix Delivery Services Console.

Exercise 3

Capture the Reference Computer using the XenDesktop Provisioning Server

Scenario

In this exercise you will create a shared base desktop image that will be deployed to all virtual desktops when this lab is completed.

Woodgrove Bank wants to deploy a standardized desktop to all bank teller computers. The standardized desktop will function as a kiosk, running only approved applications. Users will not save any data on the desktop computers. All data will be saved using the banking applications installed on the computers.

To complete this step, you need to create a shared base desktop image. You will configure the Citrix Provisioning Server for Desktops to capture an image of this reference computer, and then verify that you can network boot this image by booting Windows Vista from a diskless computer.

Tasks	Detailed Steps
Complete the following tasks on: **PVS-01** **1. Complete the Provisioning Server Configuration Wizard**	***Note:*** *In this task, you will complete the installation of the Provisioning Server by completing the Provisioning Server Configuration Wizard. During a normal installation, the wizard is the last step you will perform. That step was cancelled to enable you to perform it in this lab. The wizard is necessary to properly configure DHCP and TFTP settings.* *Begin this task logged on to PVS-01 as Woodgrovebank\Administrator using the password: Passw0rd!* **a.** On the **Start** menu, navigate to **All Programs/Citrix/Provisioning Services** and then click **Provisioning Services Configuration Wizard**. ***Note:*** *To save time, the Citrix Provisioning Server has been preinstalled using all default settings. The post installation configuration wizard has not been run.* **b.** Click **Next**. **c.** On the **DHCP Services** page, click **The service that runs on another computer** and then click **Next**. **d.** On the **PXE services** page, click **Next**. **e.** On the **Farm Configuration** page, click **Next**. **f.** On the **Database Server** page, click **Browse**. **g.** Click **OK** and then click **Next**. ***Note:*** *The default local installation of SQL Server 2005 Express SP2 is selected as the database source.* **h.** On the **New Farm** page, enter the following values and then click **Next**:

Property	Value
Database Name	ProvisioningServices
Farm Name	XenDesktop
Site Name	Main Office
Collection Name	Bank Tellers

<table>
<tr><th>Tasks</th><th>Detailed Steps</th></tr>
<tr><td></td><td>
i. On the License server page, in License server name, type DDC-01 and then click Next.
Note: You must correctly configure the license server or you will be unable to capture the reference image as your reference computer will restart mid way through the capture.
j. On the User Account page, check Configure the database for the account and then click Next.
k. On the Streaming services page, click Next.
l. On the TFTP option and bootstrap location page, check Use the Provisioning Server TFTP service and then click Next.
Note: In Exercise 1, you configured DHCP Option 66 and 67 which instructed the PXE client to connect to the provisioning server and receive the boot file.
This option enables the TFTP service on the provisioning server and allows it to deliver the boot file.
m. On the Stream Servers Boot List page, click Next.
n. On the Finish page, click Finish and then when the configuration is complete, click Done.
</td></tr>
<tr><td>2. Create and Format a New Virtual Disk (vDisk) on the Provisioning Server</td><td>
Note: A Virtual Disk (vDisk) is used to store an image of a reference computer. The vDisk must be created and formatted. After it is created, you can use it to store the master image of your reference computer. A vDisk is a Virtual Hard Disk (VHD).
Begin this task logged on to PVS-01 as Woodgrovebank\Administrator using the password: Passw0rd!
a. On the Start menu, navigate to All Programs/Citrix/Provisioning Services and then click Provisioning Services Console.
b. In the Provisioning Services Console, on the Action menu, click Connect to Farm.
c. In Name, type PVS-01 and then click Connect.
d. In Provisioning Services Console, navigate to XenDesktop(PVS-01)\Stores.
e. On the Action menu, click Create Store.
f. In Name, type Default Storage Location.
g. In Site that acts as the owner of this store, select Main Office.
h. On the Servers tab, check PVS-01.
i. Click Paths and then in Default Store Path, type c:\vDiskStore.
j. Click Add, in Cache path type c:\WriteCache and then click OK.
k. Expand Stores and then click Default Storage Location.
l. On the Action menu, click Create vDisk.
m. In the Create vDisk dialog box, enter the following values and then click Create vDisk:
<table>
<tr><th>Setting</th><th>Value</th></tr>
<tr><td>Filename</td><td>ReferenceVM</td></tr>
<tr><td>Description</td><td>vDisk for the Reference Computer</td></tr>
<tr><td>Size</td><td>20000MB</td></tr>
<tr><td>VHD format</td><td>Dynamic</td></tr>
</table>
n. In Provisioning Services Console, under Default Storage Location, click
</td></tr>
</table>

Tasks	Detailed Steps
	ReferenceVM, and then on the **Actions** menu, click **Mount vDisk**. The **Mount vDisk** command will make the virtual disk available as a removable disk. Before the virtual disk can be used, it must be formatted with a file system. **o.** On the Start menu, click **Administrative Tools.** **p.** In Administrative Tools, click **Server Manager**. **q.** In Server Manager, navigate to **Storage/Disk Management**. **r.** Click **Disk 1 Basic 19.53GB Offline** **s.** On the **Action** menu point to **All Tasks**, and then click **Online**. **t.** On the **Start** menu, click **Computer**. **u.** In **My Computer**, open **Local Disk (E:)**. **v.** In the Disk is not formatted dialog box, click **Format Disk**. **w.** In the Format Local Disk dialog box, check **Quick Format**, and then click **Start**. **x.** Click **OK** to format the drive. ***Note**: After the format has completed the E:\ window will open. You can close this window.* **y.** Click **OK** to complete the formatting and then click **Close** to close the Format Local Disk dialog box. **z.** In **Provisioning Services Console**, under **Default Storage Location**, click **ReferenceVM** and then on the **Actions** menu, click **Unmount vDisk ReferenceVM**.
3. Configure Active Directory Password Management for vDisks	***Note**: In this task you will configure the provisioning server to manage Active Directory computer accounts. This ensures that provisioned desktops are correctly domain joined.* *Begin this task logged on to PVS-01 as Woodgrovebank\Administrator using the password **Passw0rd!*** *Ensure you have the Provisioning Services Console open.* **a.** In **Provisioning Services Console**, under **Default Storage Location**, click **ReferenceVM** and then on the **Action** menu, click **Properties**. **b.** Click **Edit file properties**. **c.** On the **Options** tab, check **Active Directory machine account password management** and then click **OK**. **d.** Click **OK** to close the **vDisk Properties** dialog box. **e.** In **Provisioning Services Console**, navigate to **XenDesktop (TPA-PVS-01)/Sites/Main Office/Servers**. **f.** Double-click **PVS-01**. **g.** On the **Options** tab, click **Enable automatic password support** and then click **OK**. **h.** Click **Yes** to restart the stream service. ***Note**: You may need to manually restart the stream service. If you receive an error to restart the stream service. Go to Start, Administrative Tools, click on Services. Right click on Citrix PVS Stream Service and click Restart.*
4. Create a New Target Device on the Provisioning Server **Complete this Task on: PVS-01**	***Note**: A target device is a definition of a computer that will boot using PXE. When client computers PXE boot, they use their MAC address to identify a set of configuration parameters that describe how the computer should boot. In this task you are creating a new device entry that will boot to the local hard disk, but will make the new virtual disk available to the client computer as a second drive.*

Tasks	Detailed Steps
	*Begin this task logged on to PVS-01 as Woodgrovebank\Administrator using the password **Passw0rd!*** *Ensure you have the Provisioning services console open.* **a.** In **Provisioning Services Console**, navigate to **XenDesktop(TPA-PVS-01)/Sites/Main Office/Device Collections** and then click **Bank Tellers**. **b.** On the **Action** menu, click **Create Device**. **c.** In the **Create Device** dialog box, in **Name**, type **ReferenceComp**. ***Note**: The value of Name is limited to 15 characters.* **d.** In **MAC** type **00-11-22-33-44-55** and then click **OK**. ***Note**: The MAC address 00-11-22-33-44-55 is hard coded into the Reference Computer image.* *In a production environment, you can acquire the MAC address using the IPConfig /All command, or from the manufacturer's documentation.* **e.** Double-click **ReferenceComp**. **f.** On the **General** tab, in **Boot From**, select **Hard Disk**. ***Note**: Because this is a reference computer, we want to boot the operating system from the local hard disk and capture it onto the virtual hard disk.* *The virtual hard disk will be available as a secondary drive.* **g.** On the **vDisks** tab, click **Add in the vDisks for this Device section**. **h.** Click **Default Storage Location\ReferenceVM** and then click **OK**. **i.** Click **OK** to close the **Target Device Properties** dialog box.
Complete the following task on: **ReferenceVM** **5. Install the Citrix Provisioning Server Target Device and XenDesktop Agent**	***Note:** In this task you will install the Citrix Provisioning Server Target Device and XenDesktop Agent software that will enable you to capture an image of your reference computer and will allow clients to connect to your virtual desktop computers.* *Begin this task logged on to ReverenceVM as Woodgrovebank\Administrator using the password: **Passw0rd!*** **a.** Switch to ReferenceVM **b.** Open the **\\DC-01\Software** folder. **c.** Double-click **PVS_Device**. **d.** Click **Install** to install **XenConvert 2.0**. **e.** In the setup wizard, click **Next**. **f.** On the **License Agreement** page, scroll to the bottom of the agreement, select **I accept the terms in the license agreement** and then click **Next**. **g.** On the **Customer Information** page, click **Next**. **h.** On the **Destination Folder** page, click **Next**. **i.** On the **Ready to Install the Program** page, click **Install**. **j.** Click **Finish**. **k.** Click **OK**. **l.** Click **Yes** to restart **ReferenceVM**. ***Note**: Wait for ReferenceVM to restart before continuing.* *The restart is required to ensure the hardware is correctly detected.* **m.** It might take a couple of minutes for the machine to reboot, wait for a couple of minutes, then double click on ReferenceVM in the Remote Desktop list to

Tasks	Detailed Steps
	reconnect. Click Ask me later in the Windows Activation window. Then click OK. **n.** Open the **\\DC-01\Software** folder **o.** Double-click **XdsAgent** and then click **Next**. **p.** Accept the license agreement and then click **Next**. **q.** Click **Next** to accept the default port. **r.** Click **Next** to accept the firewall configuration. **s.** Click **Next** to accept the default farm and then click **Install**. **t.** In the **Windows Security** dialog box, check **Always trust software from "Citrix Systems"** and then click **Install**. **u.** When the installation is complete, click **Finish** and then click **Yes** to restart the computer. **v.** Logon to **ReferenceVM as Woodgrovebank\Administrator** using the password **Passw0rd!**
Complete the following task on: **ReferenceVM** **6. Capture an Image of the Reference Computer to the Virtual Hard Disk**	***Note**: In this task you will create an image of the reference computer by copying the contents of the reference computer to the virtual disk. This is accomplished using the Provisioning Server Target Device software. This software has been preinstalled to save time.* *Begin this task logged on to ReferenceVM as Woodgrovebank\Administrator using the password Passw0rd!* **a.** In the **notification** area, double-click the **Virtual Disk Status** notification icon. (note: can't reproduce this step) **b.** Review the Virtual Disk Status dialog box and then close the Virtual Disk Status dialog box. (note: can't reproduce this step) ***Note**: Notice that the virtual disk is mapped to the Reference Computer virtual disk that you created earlier and assigned to this target device by using the MAC address.* **c.** On the **Start** menu, navigate to **All Programs/Citrix/Provisioning Server** and then click **Provisioning Server Device Optimizer**. **d.** Review the selected options and then click **OK**. ***Note**: Because XenDesktop makes use of a shared disk with a write cache, a key aspect of virtual desktop performance is minimizing disk activity. These settings are designed to minimize disk activity.* *In a production environment, each setting should be evaluated for effect on business applications.* **e.** On the **Start** menu, navigate to **All Programs/Citrix/XenConvert** and then click **XenConvert 2.0.** **f.** Click **Next**. **g.** Click **Next**. **h.** Click **Cancel**. ***Note**: The conversion process can take up to two hours; for the remainder of this lab you will use a pre-converted image.*
Complete the following tasks on: **PVS-01** **7. Add the Pre-**	***Note:** In this task you will add an already captured vDisk to the PVS.* *Begin this task logged on to PVS-01 as Woodgrovebank\Administrator using the password Passw0rd!* **a.** In Provisioning services console, navigate **to XenDesktop(PVS-01)\Stores**. **b.** Click Default Storage Location, and then on the Action menu, click **Add Exisiting**

Tasks	Detailed Steps
converted Image to the Provisioning Server	**vDisk**. **c.** Click **Search**, click **Add**, and then click **OK**. **d.** Click **Close**.
8. Configure the Virtual Disk to be Used by a New Target Device	***Note:*** *In this task you will add the hard disk to the provisioning server and the target device.* *Begin this task logged on to PVS-01 as Woodgrovebank\Administrator using the password Passw0rd!* *Ensure you have the Provisioning services console open.* **a.** In **Provisioning services console**, expand **Stores**, click **Default Storage Location** and then click **ReferenceVM2**. **b.** On the **Action** menu, click **Properties**. ***Note****: If the OK button is unavailable, close the Properties window, press F5 and then reopen the Properties window.* **c.** Click **Edit** file properties. **d.** In the **vDisk File Properties** dialog box, on the **Mode** tab, in **Access Mode**, select **Standard Image (multi-device, write-cache enabled)**. ***Note****: Before a virtual disk can be shared by multiple network computers, the image must be changed from private to shared.* *All write operations are cached using the value in the Cache Type setting.* *If you chose to cache write operations on the provisioning server disk, you should modify the cache folder to point to a location on a high-performance disk system with enough space to cache the write operations for all shared clients.* **e.** Click **OK** to close the vDisk File Properties dialog box. **f.** Click **OK** to close the vDisk Properties dialog box. **g.** In Provisioning services console, navigate to **XenDesktop(TPA-PVS-01)/Sites/Main Office/Device Collections** and then click **Bank Tellers**. **h.** Double-click **ReferenceComp**. **i.** In Boot from, select **vDisk**. **j.** On the vDisks tab, click **ReferenceVM** and then click **Remove**. **k.** Click **Add**, click **ReferenceVM2** and then click **OK**. **l.** Click **OK** to close the Target Device Properties dialog box.

Exercise 4
Create a Virtual Desktop Pool

Scenario

In this exercise, you manage backup and server storage from the Windows SBS 2008 Console. This involves the following tasks:

- View the two sub-tabs
- Configure server backup
- Move SBS data to an alternate storage location with the wizard

Tasks	Detailed Steps
Complete the following task on: **DC-01** **1. Create a Template Virtual Machine**	***Note:*** *In this task you will create a new virtual machine to function as a template for the virtual machines that will be created for the virtual desktop farm. When the XenDesktop Setup Wizard creates virtual desktops, they will be created by copying the settings of the template desktop that you will create in this task.* *Begin this task logged on to DC-01 as Woodgrovebank\Administrator using the password* ***Passw0rd!*** **a.** On the Desktop, double-click **SCVMM Admin Console** **b.** In Virtual Machine Manager, click **Virtual Machines**. **c.** In the Actions pane, click **New virtual machine**. **d.** On the **Select Source** page, click **Create the new virtual machine with a blank virtual hard disk** and then click **Next**. **e.** On the **Virtual Machine identity** page, type **vDesktopTemplate** and then click **Next**. **f.** On the **Configure Hardware** page, click **BIOS** and then in **Startup order**, move **PXE boot** to the top of the list. ***Note****: Virtual machines created by XenDesktop must be configured to boot from the network first.* *To enable network boot, virtual machines used by XenDesktop must use legacy network adapters.* **g.** In Memory, type **64** and then click **Next**. **h.** On the Select Destination page, click **Next**. **i.** On the Select Host page, click **Next**. **j.** On the Select Path page, click **Next**. ***Note****: This host is using the default path. In a production environment, you would store the VMs on a SAN, or other highly-available disk system.* *Note that because these VMs are diskless, disk performance and space is not a concern for the Hyper-V host computer.* **k.** On the **Select Networks** page, in **Virtual Network**, click **Internal-Network – External-Network** and then click **Next**. (Note: Cannot Reproduce this step, selecting Internal Network – External Network option instead) **l.** On the **Additional Properties** page, click **Next** and then click **Create**. ***Note****: The virtual machine will be created. This virtual machine's settings will be*

<table>
<tr><th>Tasks</th><th>Detailed Steps</th></tr>
<tr><td></td><td>copied when multiple virtual desktops are provisioned.
There is a warning in the Jobs dialog box because the virtual machine has no virtual hard disks partitions.
Wait for the virtual machine to be created before proceeding.
In testing, at times, the process would hang at approximately 82%. If this occurs, right-click the active job and then click Cancel, followed by Yes. The Virtual Machine will have been created.
m. Close the Jobs dialog box.</td></tr>
<tr><td>Complete the following task on:
PVS-01
2. Provision Multiple Virtual Desktops for Bank Tellers</td><td>Note: In this task you will use the XenDesktop Setup Wizard to create a pool of identically configured virtual desktops by creating linked virtual machines and target devices, as well as configuring the desktop group that contains all the virtual desktops.
Begin this task logged on to PVS-01 as Woodgrovebank\Administrator using the password Passw0rd!Select the Server Storage tab.
a. On the Start menu, navigate to All Programs/Citrix/Administration Tools and then click XenDesktop Setup Wizard.
Note: The setup wizard may take several minutes to appear.
b. Click Next on the Welcome to the XenDesktop Setup Wizard.
<table>
<tr><th>Setting</th><th>Value</th></tr>
<tr><td>Desktop Farm</td><td>XenDesktop</td></tr>
<tr><td>Hosting Infrastructure</td><td>Microsoft Virtualization with address DC-01.woodgrovebank.com</td></tr>
<tr><td>SCVMM Credentials</td><td>Woodgrovebank\Administrator and Passw0rd!
Note: You can use any user account that has permission to create virtual machines and corresponding computer accounts.</td></tr>
<tr><td>Virtual Machine Template</td><td>vDesktopTemplate</td></tr>
<tr><td>Virtual Disk (vDisk)</td><td>ReferenceVM</td></tr>
<tr><td>Virtual Desktops</td><td>Common Name: Bank Tellers
Number of Desktops: 5</td></tr>
<tr><td>Organizational Unit Location</td><td>Default OU</td></tr>
<tr><td>Desktop Group</td><td>Bank Tellers</td></tr>
</table>
Note: The desktop wizard creates all 5 desktop systems. This process will take approximately 5 minutes.</td></tr>
<tr><td>Complete the following tasks on:
DDC-01
3. Review the Desktop Pool</td><td>Note: In this task you will review the desktop group that was created.
Begin this task logged on to DDC-01 as Woodgrovebank\Administrator using the password Passw0rd!
a. On the Start menu, navigate to All Programs/Citrix/Management Consoles and then click Delivery Services Console.
b. In the Citrix Access Management Console, navigate to Citrix Resources/Desktop Delivery Controller/Woodgrovebank/Desktop Groups and then click Bank Tellers.</td></tr>
</table>

Tasks	Detailed Steps
	***Note**: This group was created by the wizard and contains the records for each virtual desktop and active directory computer account.* **c.** Review the contents of the **Virtual Desktops** panel.
4. Configure the Desktop Idle Pool Settings	***Note**: In this task you will configure when virtual desktops are automatically started. This ensures that desktops are pre-started when they are requested by users, avoiding lengthy wait times for users while the virtual desktops are started. Idle desktops consume valuable resources, which should be balanced against user demand.* *Begin this task logged on to DDC-01 as Woodgrovebank\Administrator using the password **Passw0rd!*** *Ensure you have the Citrix Access Management Console open.* **a.** In the **Citrix Access Management Console**, click **Bank Tellers** and then on the Action menu, click **Properties**. **b.** In the **Bank Teller Workstations – Desktop Group Properties** dialog box, click **Advanced** and then click **Idle Pool Settings**. **c.** In **Day start**, change the time to **07:30**. ***Note**: This time is typically set to 30 minutes before the start of the business day.* *The peak time is typically set to the time when most users will first log on for the day.* **d.** In **Day end**, change the time to **16:00** and then click **OK**. ***Note**: After this time, any new connections will require the user wait while the virtual desktop is started.*
Complete the following task on: **PVS-01** **5. Review the Target Devices That Have Been Created**	***Note**: In this task you will review the device entries that were created on the provisioning server. Each device represents one virtual desktop which is associated with one virtual machine and configured to use the shared virtual disk.* *Begin this task logged on to PVS-01 as Woodgrovebank\Administrator using the password **Passw0rd!*** **a.** On the **Start** menu, navigate to **All Programs/Citrix/Provisioning Server** and then click **Provisioning services console**. Click **Connect**. **b.** In the **Provisioning services console**, under **Sites/Main Office/Device Collections**, click **Bank Tellers**. **c.** Click **Bank Tellers1** and then on the Action menu, click **Properties**. **d.** Review the contents of the **General** tab. ***Note**: The MAC address has been statically configured. The MAC address is used to associate the devices with a specific virtual machine definition.* **e.** Review the contents of the vDisks tab and then click **OK**. ***Note**: The device is configured to boot using the shared virtual disk.* **f.** Close the Provisioning services console.
Complete the following tasks on: **DC-01** **6. Review the New Virtual Machines That Have Been Created**	***Note**: In this task you will review the virtual machines that were created by the XenDesktop Setup Wizard.* *Begin this task logged on to DC-01 as Woodgrovebank\Administrator using the password Passw0rd!* *Ensure you have the Virtual Machine Manager console open.* **a.** In Virtual Machine Manager, click **Virtual Machines**. **b.** Under **All Hosts**, click **Bank Tellers1** and then in the Actions pane, under **Virtual Machine**, click **Properties**. **c.** In the **Virtual Machine Properties** page, on the **Hardware Configuration** tab,

Tasks	Detailed Steps
	click **Network Adapter 1**. ***Note**: The MAC address is set to Static. The MAC address is used to associate this VM with the device entry on the provisioning server.* **d.** Click **IDE Devices**. ***Note:** That there are no Virtual Hard Disks configured.* *Generally, because of this configuration, virtualization servers hosting virtual desktop solutions require a lot of CPU and memory resources, but minimal disk resources.* **e.** Click **Cancel** to close the Virtual Machine Properties page.
7. Connect to the Virtual Desktop Farm	***Note**: In this task you will use a client workstation to explore the process that is used to connect to a virtual desktop farm.* *Begin this task logged on to DC-01 as Woodgrovebank\Administrator using the password **Passw0rd!*** **a.** Using your computer, in Internet Explorer, navigate to **HTTP://DDC-01.woodgrovebank.com**. **b.** In Internet Explorer, log on to the **Woodgrovebank domain as Administrator** using the password **Passw0rd!** **c.** You will be prompted to install a series of ActiveX controls and the Citrix Desktop Receiver. Follow the instructions presented in Internet Explorer to install these controls and the Citrix Desktop Receiver. You may have to restart Internet Explorer during this process. ***Note**: Your desktop will fail to connect; this is expected in this lab environment because the virtual desktops are defined on a Hyper-V Server that is running as a VM, and therefore unable to start.*

For further information about Citrix XenDesktop, click here to watch these videos on Citrix TV:

XenDesktop vs the Competition: http://www.citrix.com/tv/#videos/948

Delivering Windows 7: http://www.citrix.com/tv/#videos/724