



601: Upgrading legacy XenApp to the new XenApp 7.6

Hands-on Lab Exercise Guide

Citrix Summit 2015

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Table of Contents

Contents.....	2
Overview	3
Scenario.....	8
Module 1	9
Exercise 1: Test the XenApp 6.5 System.....	10
Exercise 2: Configure StoreFront to Add XenApp 6.5	13
Exercise 3: Testing StoreFront with XenApp 6.5.....	18
Exercise 4: Enabling Application De-Duplication	24
Exercise 5: Disabling User Subscriptions	33
Module 2	36
Exercise 1: Exporting Data from XenApp 6.5 Farm.....	38
Exercise 2: Review and Edit XML Files	46
Exercise 3: Importing Data to XenApp 7.6 Site	55
Module 3	65
Exercise 1: Upgrade the XenApp 6.5 Worker	66
Exercise 2: Adding Upgraded Machines to XenApp 7.6.....	77
Exercise 3: Testing the Imported XenApp Settings.....	87
Bonus Exercise	96

Overview

Hands-on Training Module

Objective

- This training will provide hands-on experience with upgrading XenApp 6.5 to XenApp 7.6.

Prerequisites

- Working knowledge of Windows server and desktop operating systems, familiarity with Citrix XenApp and related products.

Audience

- Citrix Partners
- Citrix Employees

XenApp 7.6

Citrix XenApp 7.6 is the next generation of XenApp that reinvigorates high-performance Windows app virtualization with a simpler and more intuitive unified architecture. XenApp 7.6 uses the same FlexCast Management Architecture (FMA) as XenDesktop, bringing a more flexible architecture. The move also brings conceptual and terminology shifts.

The following table explains how you can think about XenApp 6 entities in a XenApp 7.6 world:

XenApp 6.5 Instead of...	XenApp 7.6 Think of...
Independent Management Architecture (IMA)	FlexCast Management Architecture (FMA)
Farm	Site
Worker Group	Machine Catalog Delivery Group
Worker	Virtual Delivery Agent (VDA)
Zone and Data Collector	Delivery Controller
Delivery Services Console	Citrix Studio
Publishing applications	Delivering applications
Data store	Database
Load Evaluator	Load Management Policy
Administrator	Delegated Administrator Role Scope

Lab Environment Details

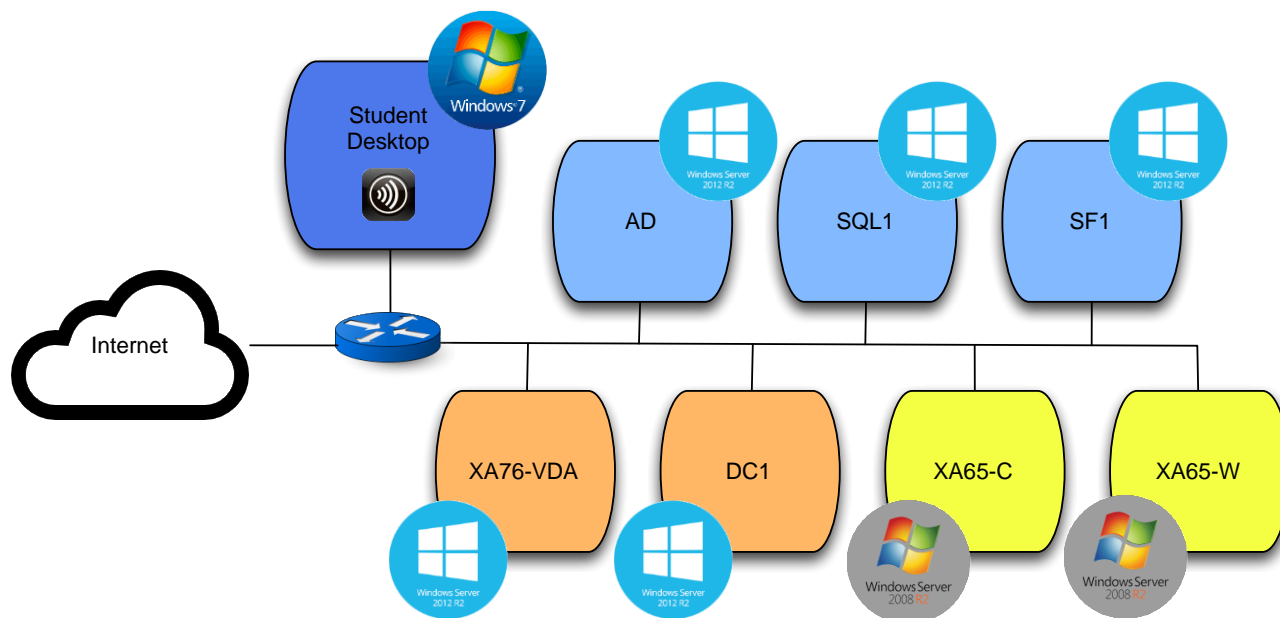


Figure 1 - VMs used in the Lab

The Student Desktop is accessed remotely using Citrix Receiver running on your laptop. All Windows applications such as XenCenter (the XenServer GUI management tool), are accessed from the Student Desktop.

VM Name	IP Address	Description	Operating System
AD	192.168.10.11	Domain Controller / DNS / DHCP	Win 2012 R2
DC1	192.168.10.15	XenApp 7.6 Delivery Controller	Win 2012 R2
SQL1	192.168.10.18	Microsoft SQL 2012 Database	Win 2012 R2
SF1	192.168.10.21	StoreFront 2.6 Server	Win 2012 R2
XA65-C	192.168.10.31	XenApp 6.5 Controller / Web Interface	Win 2008 R2
XA65-W	192.168.10.32	XenApp 6.5 Worker	Win 2008 R2
XA76-VDA	193.168.10.33	XenApp 7.6 VDA	Win 2012 R2

Required Lab Credentials

The credentials required to connect to the lab VMs and complete the exercises are shown below:

User Name	Training\Administrator
Password	Citrix123

User Name	Training\Sales1
Password	Citrix123

User Name	Training\Accounting1
Password	Citrix123

Users and Groups

Group	Training\Accounting
Users	Accounting1, Accounting2

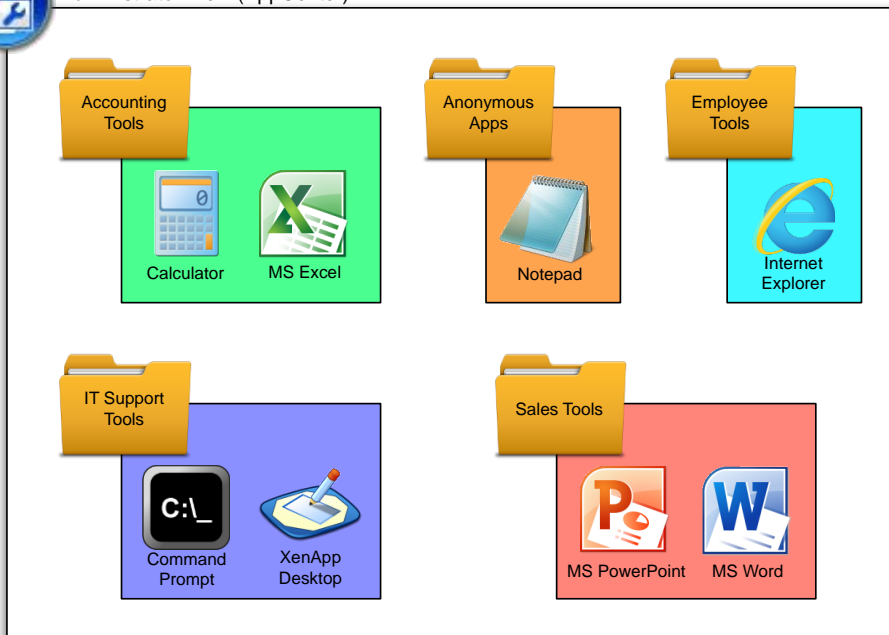
Group	Training\IT Support
Users	IT1, IT2

Group	Training\Sales
Users	Sales1, Sales2

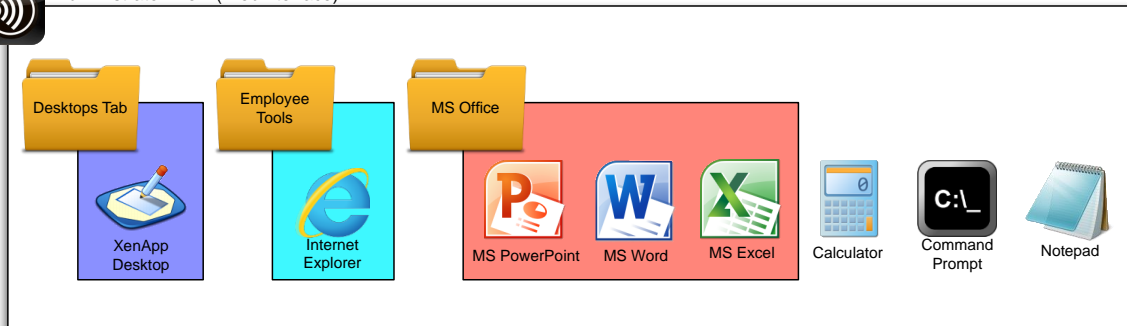
Current XenApp 6.5 Farm Configuration

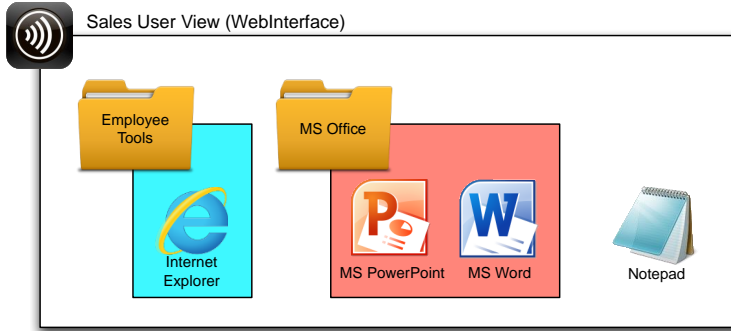
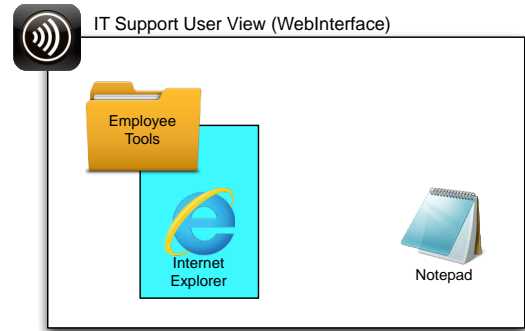
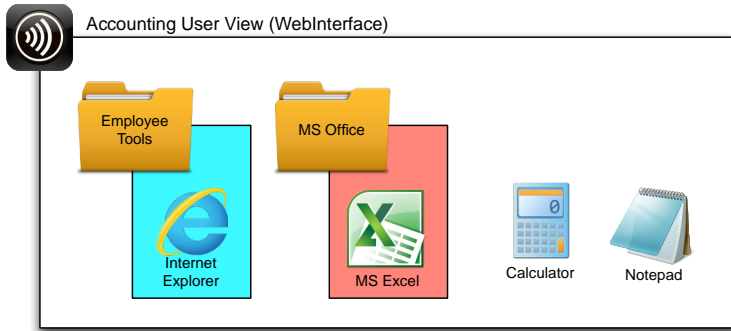


Administrator View (AppCenter)



Administrator View (WebInterface)

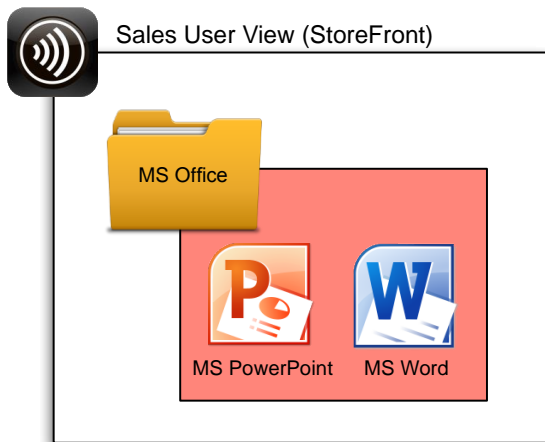
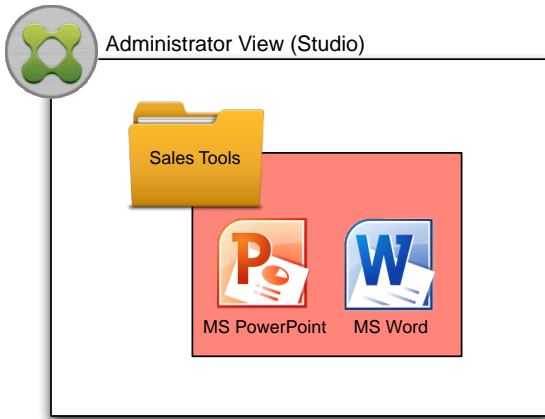








Configured XenApp 6.5 Policies

Policy Setting	Configuration
Auto Connect Client Drives	Disabled
Client Clipboard Redirection	Prohibited
Client COM port redirection	Prohibited
Client Drive Redirection	Prohibited
Client Fixed Drives	Prohibited
Client LPT Port Redirection	Prohibited
Client Network Drives	Prohibited
Client Optical Drives	Prohibited
Client Printer Redirection	Prohibited
Client TWAIN device redirection	Prohibited
Client USB Plug and Play redirection	Prohibited
Desktop Wallpaper	Prohibited
Direct connections to print servers	Disabled
Flash Acceleration	Disabled
Host to Client Redirection	Disabled

Current XenApp 7.6 Site Configuration



Lab Guide Conventions

	This symbol indicates particular attention must be paid to this step
	Special note to offer advice or background information
<code>reboot</code>	Text the student enters or an item they select from a dropdown menu is printed like this
<code>VMDemo</code>	Filename mentioned in text or lines added to files during editing
Start	Bold text indicates reference to a button or object
	Focuses attention on a particular part of the screen (R:255 G:20 B:147)
	Shows where to click or select an item on a screen shot (R:255 G:102 B:0)

Scenario

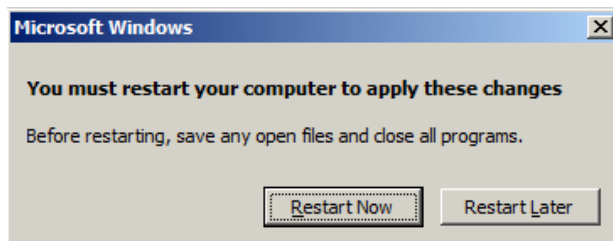
You work for a small to medium sized business called Acme. You currently have a XenApp 6.5 farm hosting a series of applications for the Acme Sales Department. You have been tasked with upgrading this XenApp 6.5 farm to a XenApp 7.6 delivery site to take advantage of newer Citrix technologies.

You will aggregate several of the applications hosted on your XenApp 6.5 farm using StoreFront, demonstrating how XenApp 6.5 and XenApp 7.6 applications can be presented to users side by side in the same store.

Finally, you will migrate the XenApp 6.5 farm to the new XenApp 7.6 delivery site. This involves moving data and policies, and upgrading the XenApp 6.5 Worker to a XenApp 7.6 VDA.

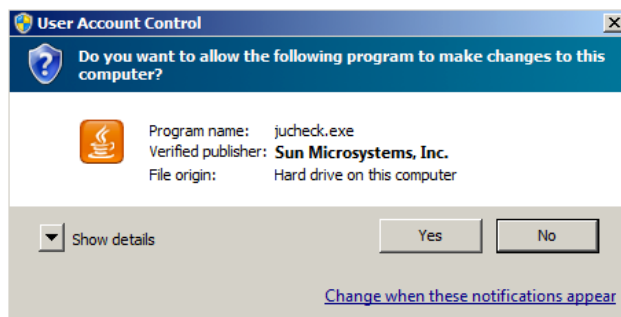
Important Lab Environment Note

When connecting to the lab environment, you may be prompted to restart the Windows on the Student Desktop



If prompted, please select **Restart Later**. Selecting Restart Now will disconnect you from the Student Desktop.

Additionally, you may receive intermittent User Access Control prompts on the Student Desktop regarding jucheck.exe:



When prompted, please select **No** and continue with your lab.

Module 1

Aggregating applications from XenApp 6.5 into XenApp 7.6 StoreFront

This module shows how you can make XenApp 6.5 applications available to users using Citrix StoreFront. This replaces Web Interface, aggregating applications served from a XenApp 6.5 deployment side by side with applications served from a XenApp 7.6 deployment. This will provide users with a single point of access for their applications as you transition from XenApp 6.5 to XenApp 7.6.

Exercises in this module

- Exercise 1: Test the XenApp 6.5 System.
- Exercise 2: Configure StoreFront to add XenApp 6.5
- Exercise 3: Testing StoreFront with XenApp 6.5
- Exercise 4: Enabling Application De-Duplication
- Exercise 5: Disabling User Subscriptions

Exercise 1: Test the XenApp 6.5 System

Overview


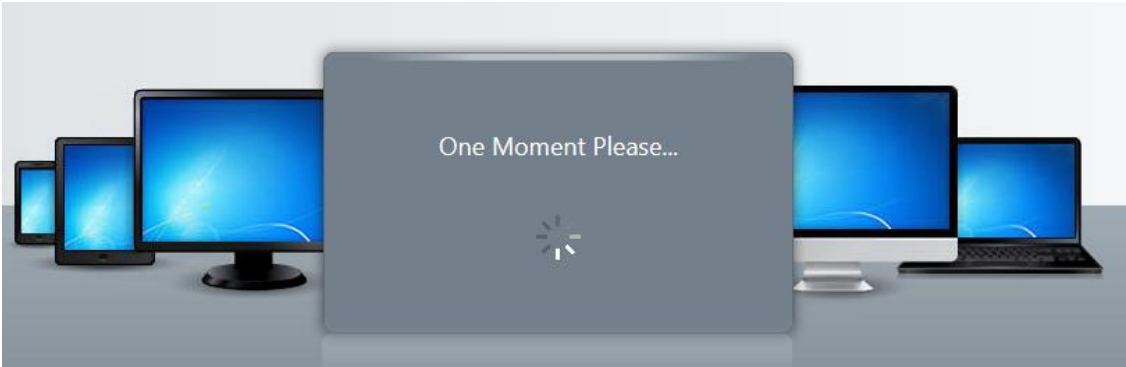
The existing XenApp 6.5 system consists of two servers: a XenApp 6.5 Controller and a XenApp 6.5 worker. For the purposes of this lab, Web Interface is installed on the XenApp 6.5 Controller.


In this exercise you will:

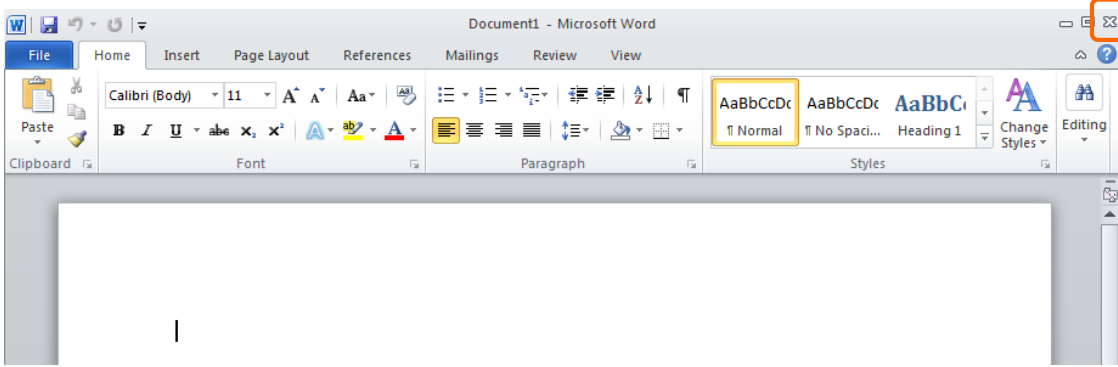
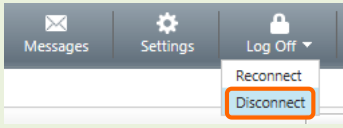
- Verify the functionality of the existing XenApp 6.5 Web Interface to launch Applications from the XenApp 6.5 farm.

Step by step guidance

Estimated time to complete this exercise: 15 minutes.

Step	Action
1.	 Click the Internet Explorer icon at the lower left of the Student Desktop.
2.	Enter the URL of the XenApp 6.5 web interface: http://XA65-C.training.lab/citrix/xenapp
3.	 The log in screen may take a moment to appear.

Step	Action						
4.	<div data-bbox="305 142 1409 800" data-label="Image"> </div> <p data-bbox="300 825 927 856">Log in to web interface by entering the following:</p> <table border="1" data-bbox="300 877 743 974"> <tr> <td>Logon type:</td> <td>Explicit</td> </tr> <tr> <td>User name:</td> <td>Sales1</td> </tr> <tr> <td>Password:</td> <td>Citrix123</td> </tr> </table> <div data-bbox="943 898 1419 989" data-label="Complex-Block"> <p> Log in is restricted to the <i>training</i> domain</p> </div> <p data-bbox="300 993 483 1024">Click Log On.</p>	Logon type:	Explicit	User name:	Sales1	Password:	Citrix123
Logon type:	Explicit						
User name:	Sales1						
Password:	Citrix123						
5.	<div data-bbox="300 1073 1458 1346" data-label="Image"> </div> <p data-bbox="300 1373 1206 1407">You will see an Employee Tools folder, MS Office folder and Notepad.</p> <p data-bbox="300 1430 686 1461">Click on the MS Office folder.</p>						
6.	<div data-bbox="300 1499 1458 1797" data-label="Image"> </div> <p data-bbox="300 1822 618 1856">Click the MS Word icon.</p>						

Step	Action
7.	 <p>After a few seconds, you should see MS Word open. This verifies the XenApp 6.5 deployment is functioning correctly.</p> <p>Close the MS Word application by clicking the X in the upper-right corner.</p>
8.	 <p>Logoff web interface by choosing Disconnect.</p>
9.	<p>Close Internet Explorer by clicking the X in the upper-right corner.</p>

Exercise Summary

You deployed a pre-configured XenApp 6.5 system from templates and verified the functionality of the existing Web Interface.

Exercise 2: Configure StoreFront to Add XenApp 6.5

Overview



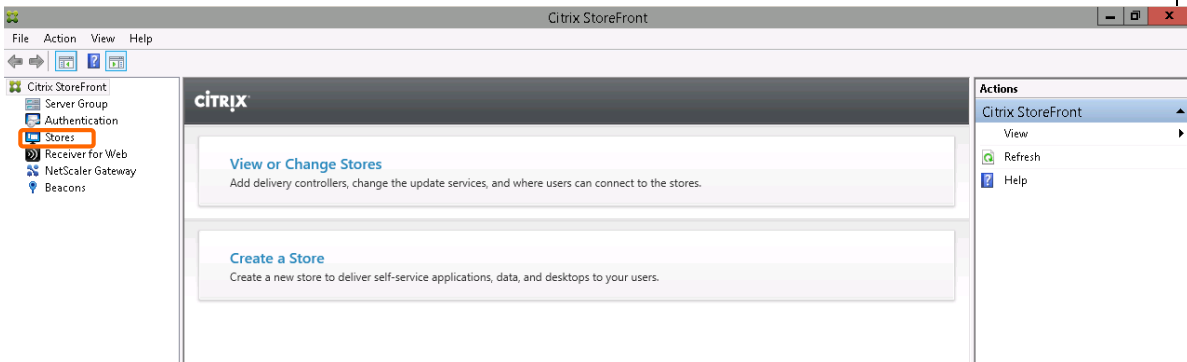
StoreFront 2.6 can be used to provide access to both XenApp 6.5 and XenApp 7.6 hosted applications.

In this exercise you will:

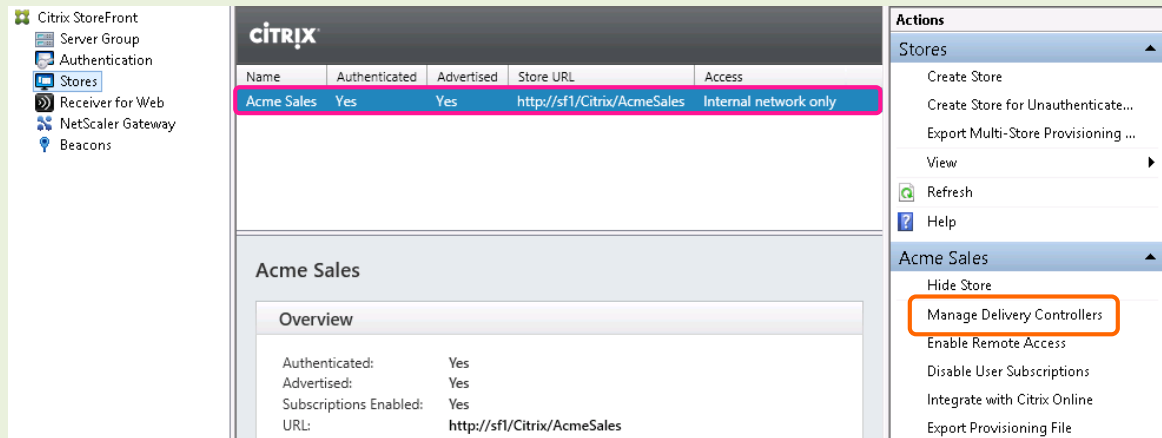
- Add applications delivered through XenApp 6.5 to the XenApp 7.6 Acme Sales store.

Step by step guidance

Estimated time to complete this exercise: 10 minutes.

Step	Action
1.	<p>On the Student Desktop, double-click the SF1 shortcut.</p> 
2.	<p>On the SF1 desktop, double-click the Citrix StoreFront shortcut. StoreFront may take a moment to load.</p> 
3.	 <p>Click Stores on the left.</p>

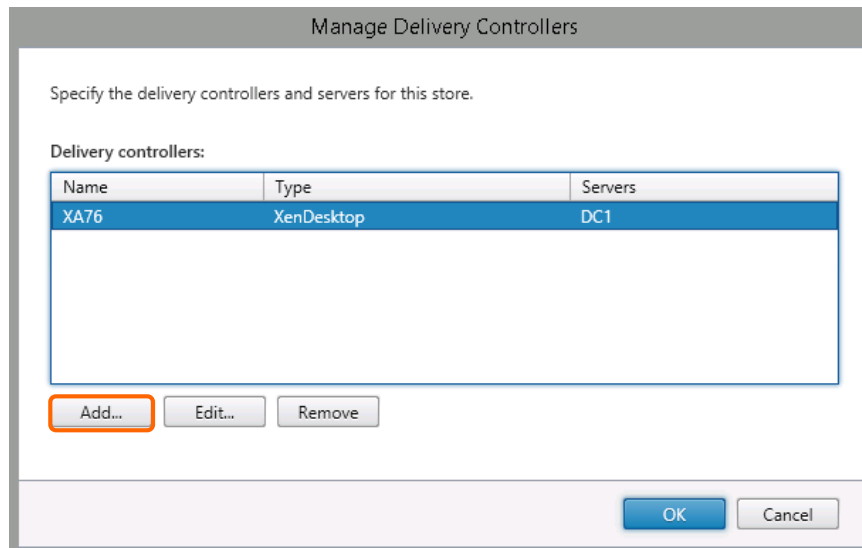
4. The Citrix StoreFront Manager opens.



Ensure the **Acme Sales** store is selected.

Click **Manage Delivery Controllers** on the right.

5. You will now add the XenApp 6.5 delivery controller, XA65-C to the Acme Sales store.



Click **Add** to add a new delivery controller.

6.

The screenshot shows the 'Add Delivery Controller' dialog box. The 'Display name' field is set to 'XA65'. The 'Type' section has three radio buttons: 'XenApp 7.5 (or later), or XenDesktop', 'XenApp 6.5 (or earlier)', and 'AppController'. The 'XenApp 6.5 (or earlier)' option is selected. Below the 'Servers (load balanced):' list, there are 'Add...', 'Edit...', and 'Remove' buttons. The 'Add...' button is highlighted with a red box. The 'Transport type' is set to 'HTTP' and the 'Port' is '80'. The 'SSL Relay port' is '443'. At the bottom, there are 'OK' and 'Cancel' buttons.

Enter or select the following:

Display Name	XA65
Type	XenApp 6.5 (or earlier)

Then Click **Add**.

7.

The screenshot shows the 'Add Server' dialog box. The 'Server name' field contains 'XA65-C'. At the bottom, there are 'OK' and 'Cancel' buttons. The 'OK' button is highlighted with a red box.

Enter the following:

Server Name	XA65-C
-------------	--------

Click **OK**.

8.

Add Delivery Controller

Display name:

Type: XenApp 7.5 (or later), or XenDesktop
 XenApp 6.5 (or earlier)
 AppController
 VDI-in-a-Box

Servers (load balanced):

Transport type: SSL Relay port:

Port:

Select the following:

Transport Type	HTTP
----------------	-------------

The port will be automatically set to 80.

Click **OK**.

9.

Manage Delivery Controllers

Specify the delivery controllers and servers for this store.

Delivery controllers:

Name	Type	Servers
XA76	XenDesktop	DC1
XA65	XenApp	XA65-C

The XenApp 6.5 Delivery Controller (XA65-C) has been added to the list of Delivery Controllers for the Acme Sales store.

Click **OK**.

10.

Close the SF1 Remote Desktop Connection window by clicking the **X** in the upper-right corner and then click **OK**.

Exercise Summary

You have added the XenApp 6.5 Delivery Controller (XA65-C) to the list of Delivery Controllers in the XenApp 7.6 Acme store.

Exercise 3: Testing StoreFront with XenApp 6.5


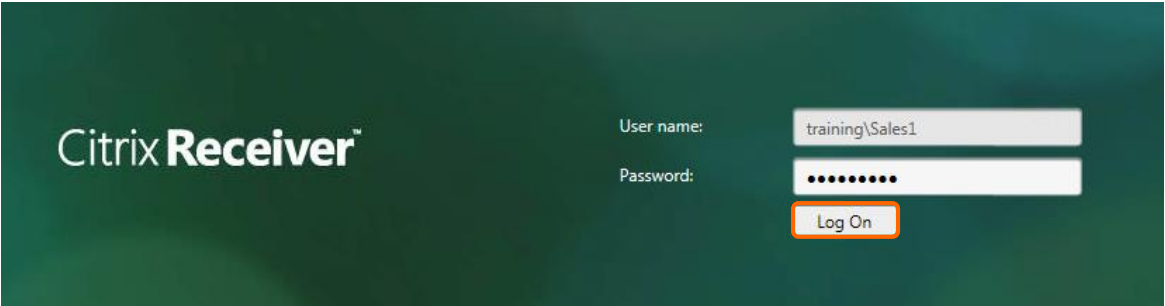
Overview

In this exercise you will:

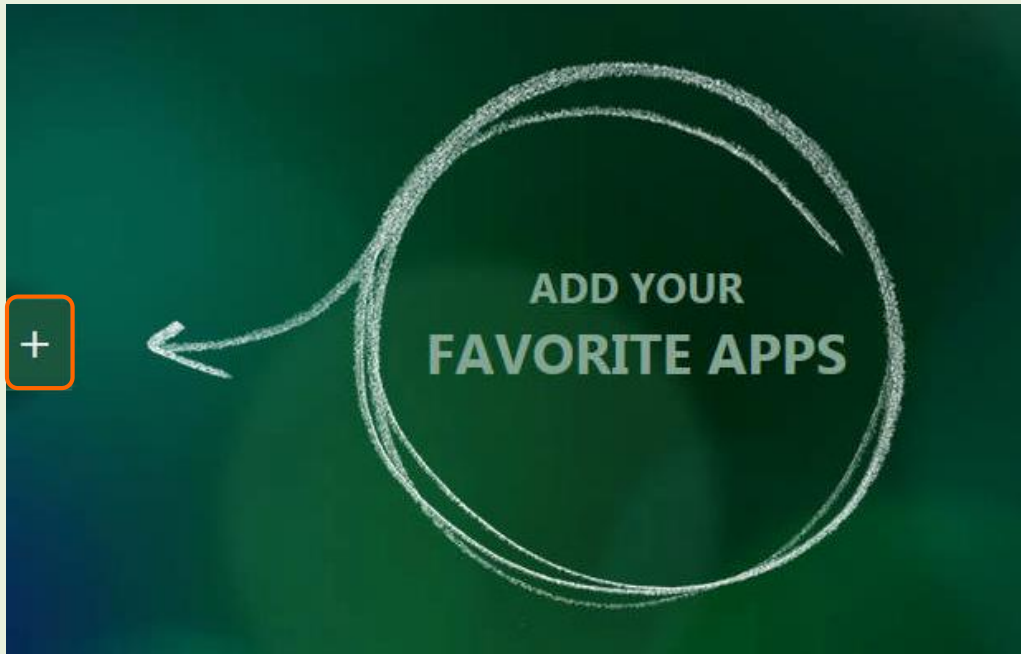
- Use StoreFront to access applications delivered from both XenApp 6.5 and XenApp 7.6 side-by-side.

Step by step guidance

Estimated time to complete this exercise: 10 minutes.

Step	Action				
1.	 Click the Internet Explorer icon at the lower left of the Student Desktop				
2.	Enter the URL of the XenApp 7.6 Store http://sf1/Citrix/AcmeSalesWeb/				
3.	 Enter the following: <table border="1" data-bbox="305 1272 967 1339"><tbody><tr><td>User Name</td><td>training\Sales1</td></tr><tr><td>Password</td><td>Citrix123</td></tr></tbody></table> Click Log On .	User Name	training\Sales1	Password	Citrix123
User Name	training\Sales1				
Password	Citrix123				

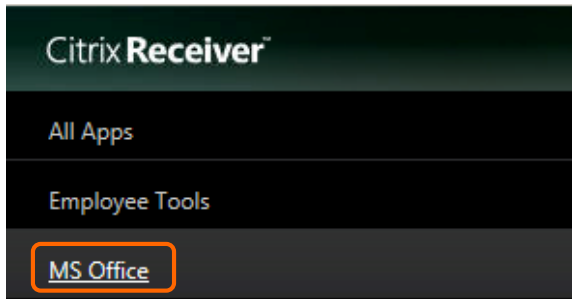
4.



Since this is the first time Sales1 has logged into Receiver, the account has no subscribed apps.

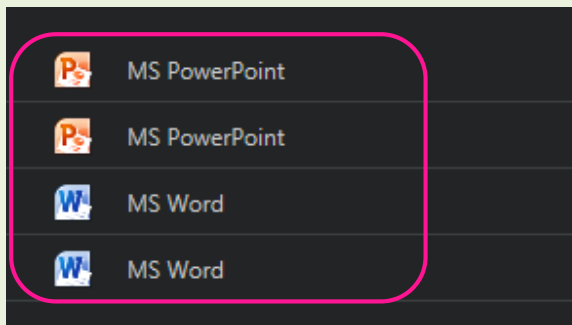
Click the + to add applications.

5.



Click **MS Office**.

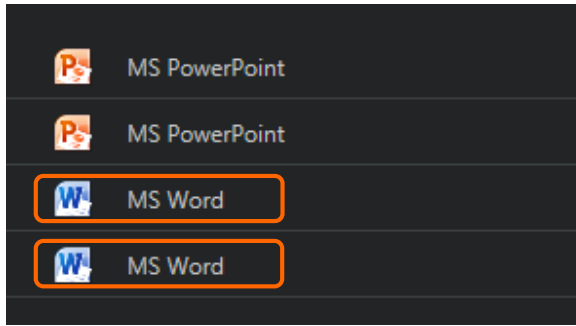
6.



Notice that MS Word and MS PowerPoint each appear twice in the MS Office category.

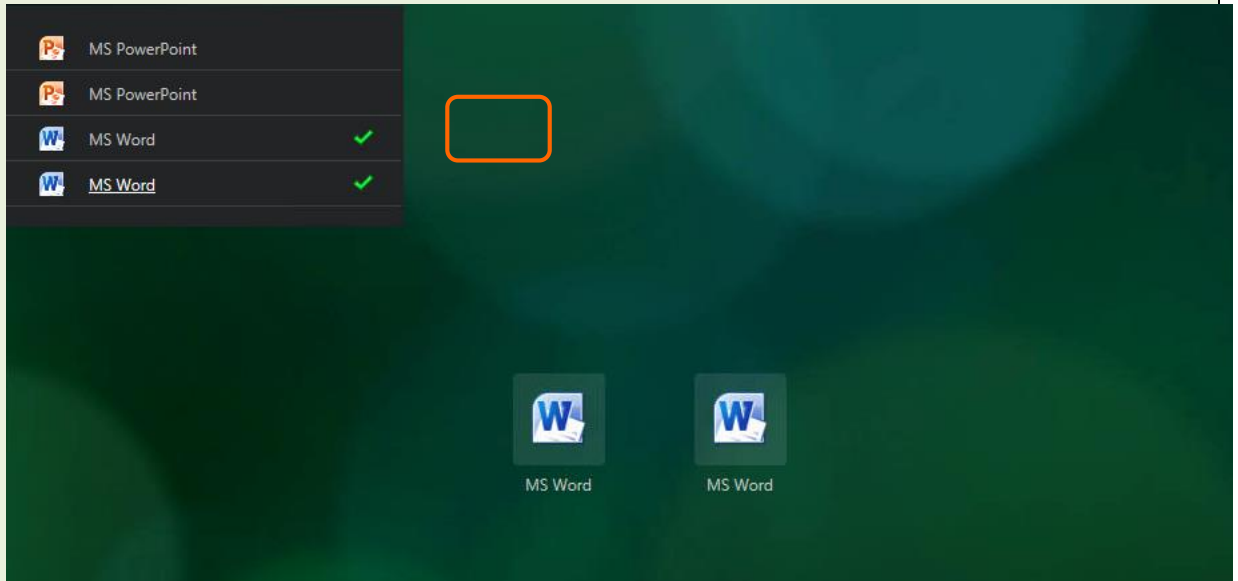
This is because these applications are hosted on both XenApp 7.6 and XenApp 6.5 and application de-duplication is not enabled.

7.



Click the both instances of **MS Word** to add them to Citrix Receiver.

8.



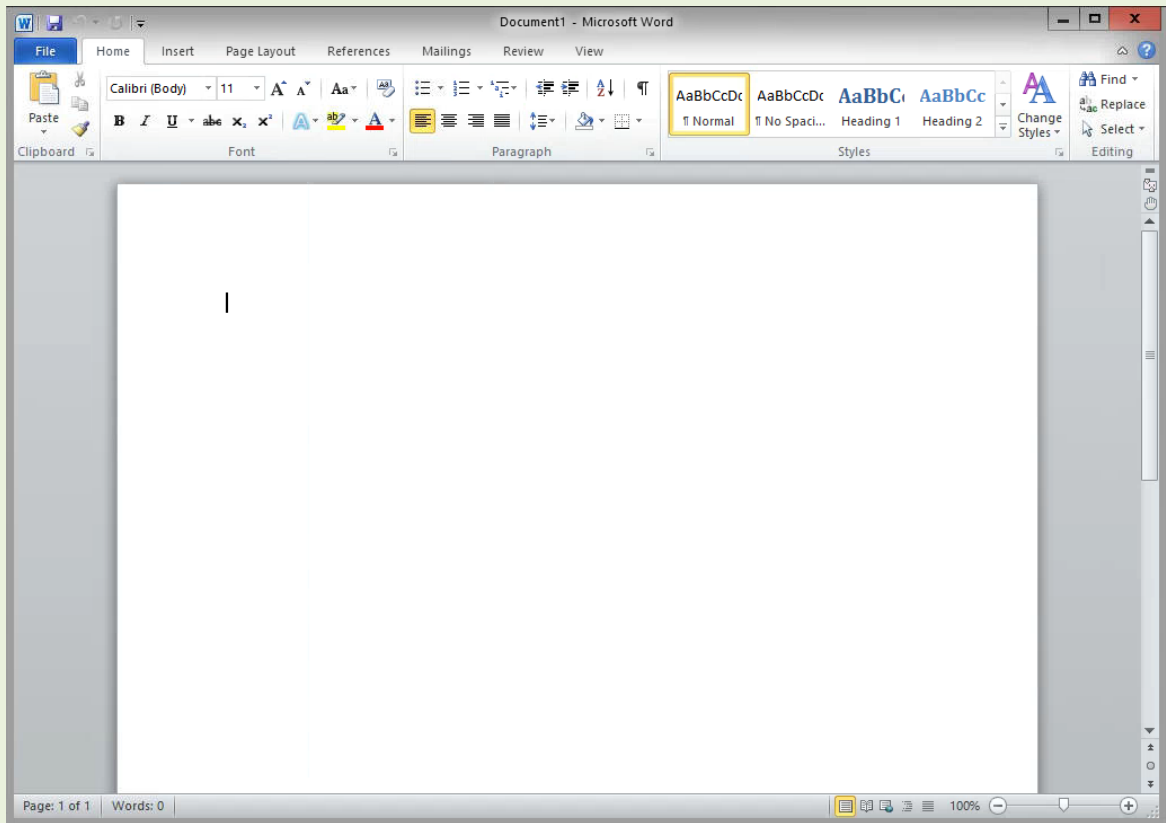
Click in the **Green** area to close the Add Applications menu.

9.



Click the **MS Word** on the left.

10.



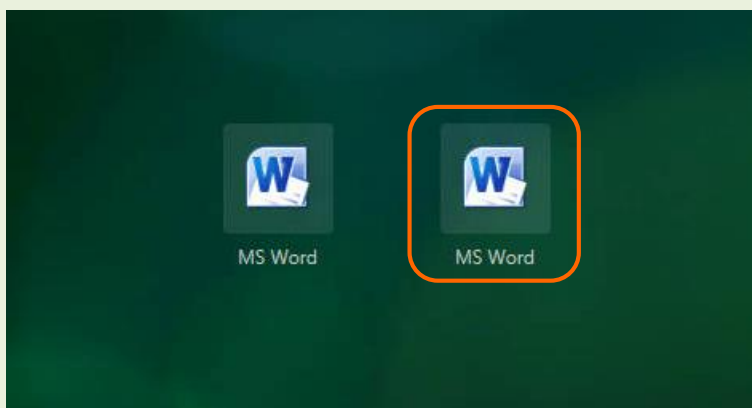
Microsoft Word Launches.

11.



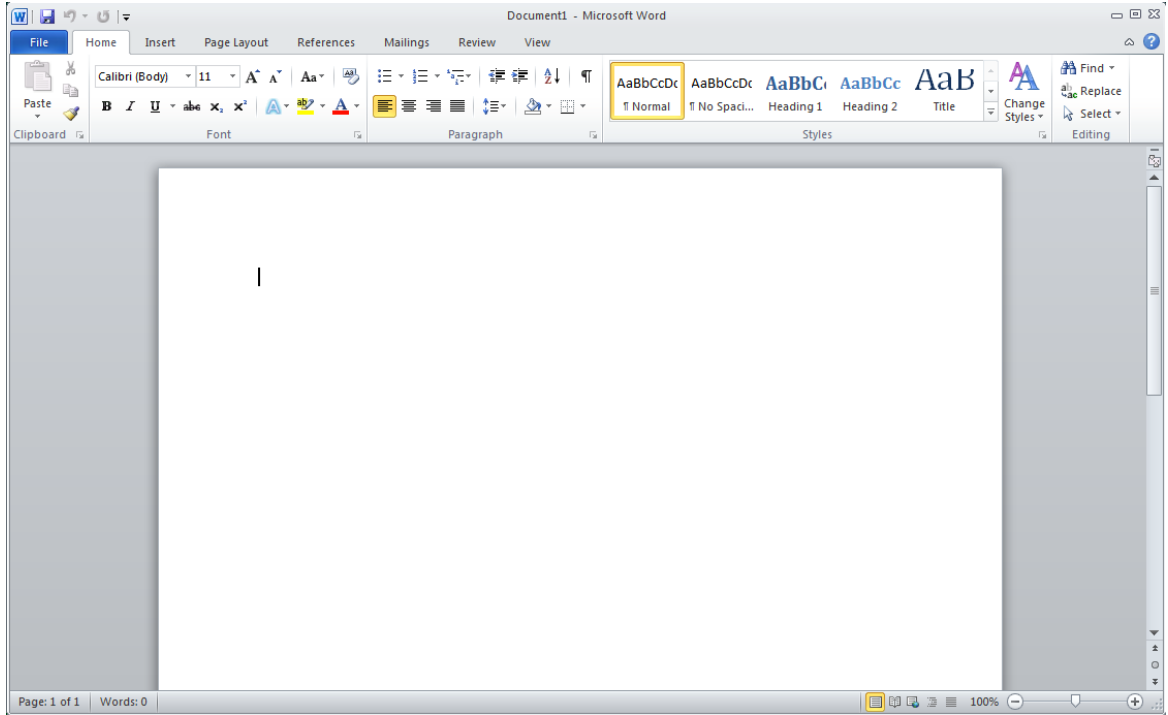
On the Student Desktop, click the **Internet Explorer** icon to switch back to the Citrix Receiver window. You may have to minimize MS Word to view the taskbar.

12.



Click the **MS Word** on the right.

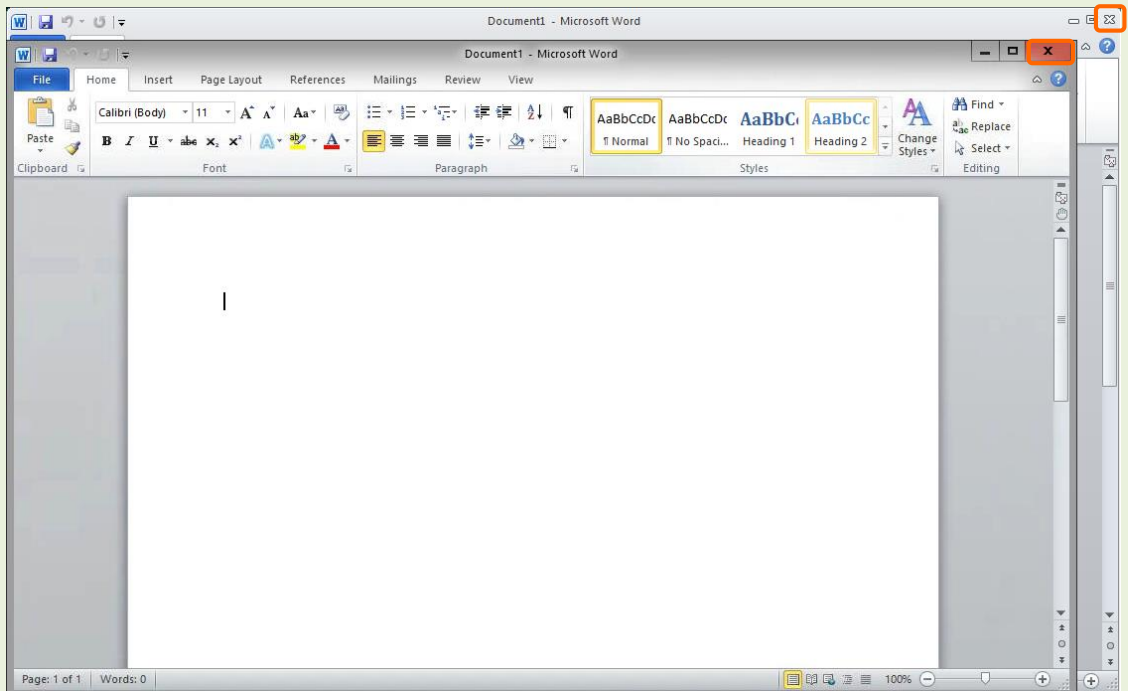
13.



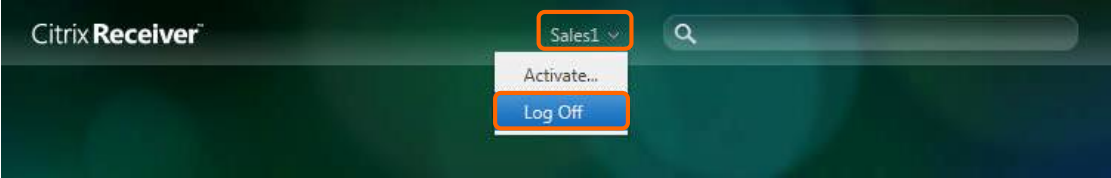
A second Microsoft Word Launches.

One of the Word instances is hosted from XenApp 7.6 and the other from XenApp 6.5, their windows will look slightly different due to operating system version.

14.



Close both instances of Microsoft Word.

15.	 <p>In the Citrix Receiver window, click Sales1 and then click Log Off.</p>
16.	Close the Internet Explorer by clicking the X in the upper-right corner.

Exercise Summary

You have successfully aggregated applications from two separate XenApp 6.5 and XenApp 7.6 deployments into one Store.

Exercise 4: Enabling Application De-Duplication

Overview



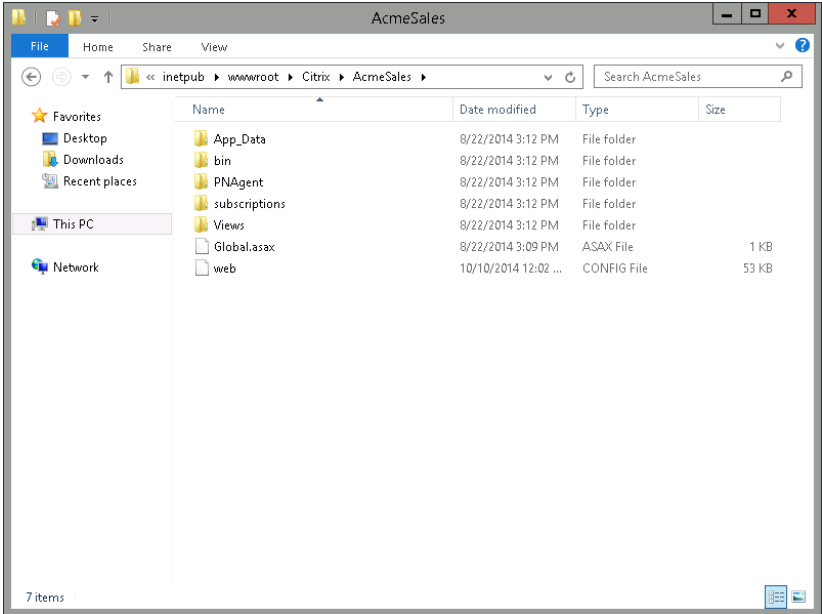
In the previous exercises, you aggregated and test XenApp 7.6 and XenApp 6.5 with Citrix StoreFront. This resulted in MS Word and MS PowerPoint displaying multiple times in Citrix Receiver for the Sales1 user. Application de-duplication will prevent the user from seeing multiple instances of the same application.

In this exercise you will:

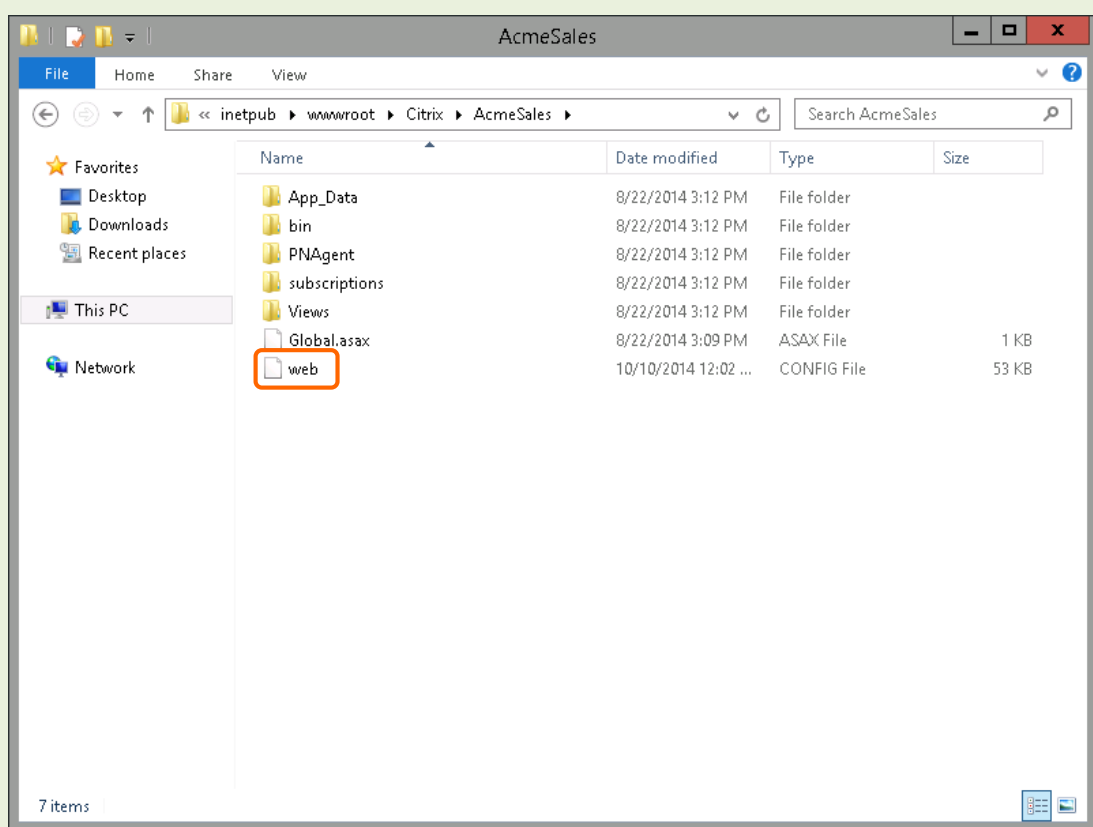
- Enable application de-duplication by editing the web.config file for your store
- View available application in Citrix Receiver for Web and test launch MS Powerpoint

Step by step guidance

Estimated time to complete this exercise: 15 minutes.

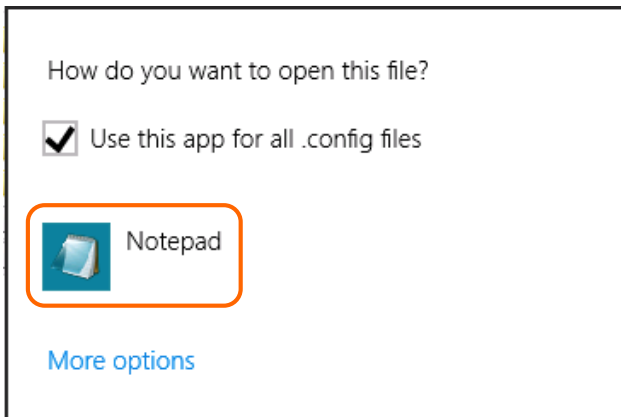
Step	Action
1.	<p>On the Student Desktop, double-click the SF1 shortcut.</p> 
2.	 <p>Click the File Explorer icon on the taskbar.</p>
3.	 <p>Navigate to C:\inetpub\wwwroot\Citrix\AcmeSales</p> <p>It is best practice to make a backup copy of the web.config file before continuing.</p>

4.



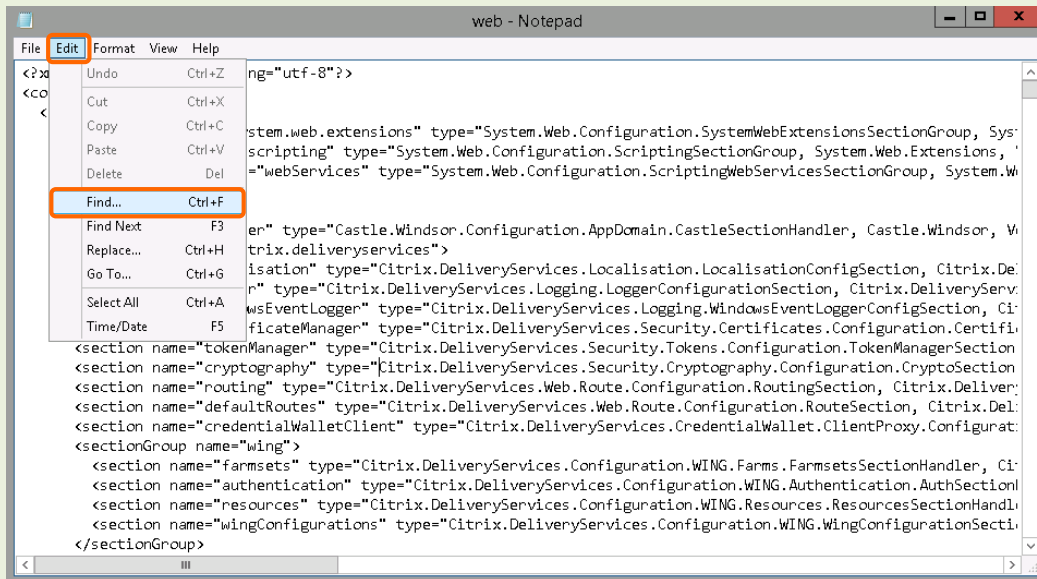
Double click the **web.config** file.

5.



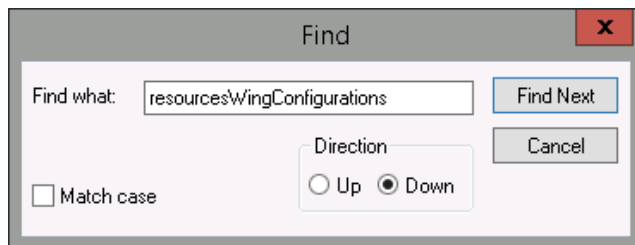
Click **Notepad** to open the web.config file with Notepad.

6.



In Notepad, click **Edit** and then click **Find...**

7.

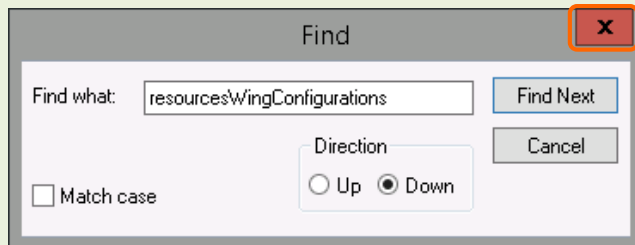


In the Find window enter the following information:

Find what: **resourcesWingConfigurations**

Click **Find Next**.

8.



Close the Find window.

9.

```
<resourcesCommon>
  <resourcesWingConfigurations>
    <resourcesWingConfiguration name="Default" wingName="Default" />
  </resourcesWingConfigurations>
</resourcesCommon>
<icaFileSigning enabled="False" certificateId="" hashAlgorithm="sha1" />
<icaLaunchDefaults templateName="" clientType="ica30" />
<resourcesGateways requireTokenConsistency="true">
```

Verify that you are at this section of the web.config file.

10.

```

web - Notepad
File Edit Format View Help
<resourcesWingConfigurations>
<resourcesWingConfiguration name="Default" wingName="Default">
<userFarmMappings>
<clear />
  <userFarmMapping name="user_mapping">
  <groups>
  </groups>
  <equivalentFarmSets>
  <equivalentFarmSet name="New" loadBalanceMode="Failover" aggregationGroup="AggregationGroup1">
  <primaryFarmRefs>
  <farm name="XA76" />
  </primaryFarmRefs>
  </equivalentFarmSet>
  <equivalentFarmSet name="Legacy" loadBalanceMode="Failover" aggregationGroup="AggregationGroup1">
  <primaryFarmRefs>
  <farm name="XA65" />
  </primaryFarmRefs>
  </equivalentFarmSet>
  </equivalentFarmSets>
  </userFarmMapping>
</userFarmMappings>
</resourcesWingConfiguration>
</resourcesWingConfigurations>

```

Copy and paste the following text in between:

<resourcesWingConfigurations> and </resourcesWingConfigurations>,

replacing <resourcesWingConfiguration name="Default" wingName="Default" />:

```

<resourcesWingConfiguration name="Default" wingName="Default">
<userFarmMappings>
<clear />
  <userFarmMapping name="user_mapping">
  <groups>
  </groups>
  <equivalentFarmSets>
  <equivalentFarmSet name="New" loadBalanceMode="Failover"
aggregationGroup="AggregationGroup1">
  <primaryFarmRefs>
  <farm name="XA76" />
  </primaryFarmRefs>
  </equivalentFarmSet>
  <equivalentFarmSet name="Legacy" loadBalanceMode="Failover"
aggregationGroup="AggregationGroup1">
  <primaryFarmRefs>
  <farm name="XA65" />
  </primaryFarmRefs>
  </equivalentFarmSet>
  </equivalentFarmSets>
  </userFarmMapping>
</userFarmMappings>
</resourcesWingConfiguration>

```



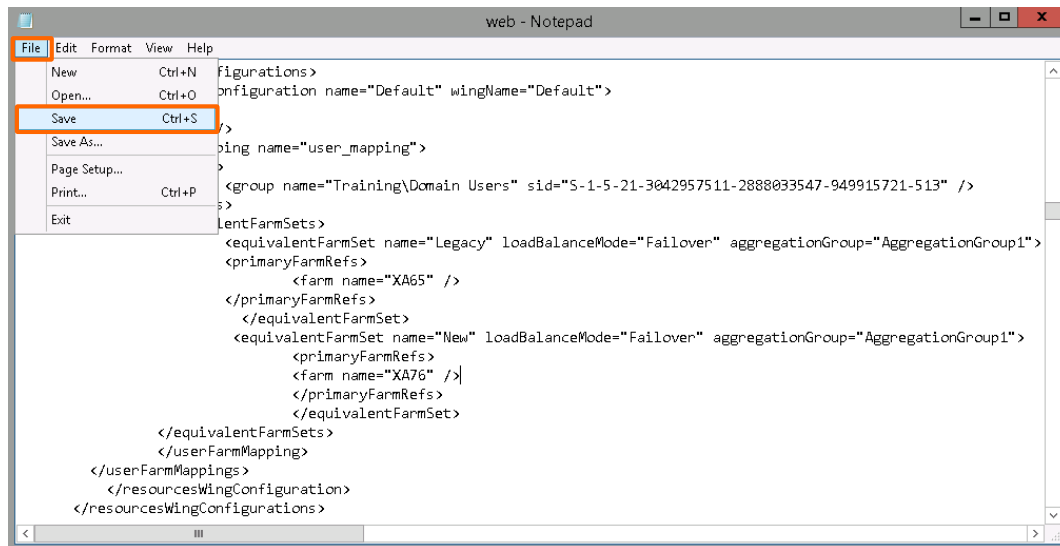
Copy and paste the previous text to prevent errors.

In the web.config, loadBalanceMode can be set to either Failover or LoadBalanced.

Failover mode will attempt to provide the application first from the specified farm name closest to the top of the web.config file and then fail over to the other “farms” if unavailable.

LoadBalanced mode will load balance users across the different “farms”.

11.

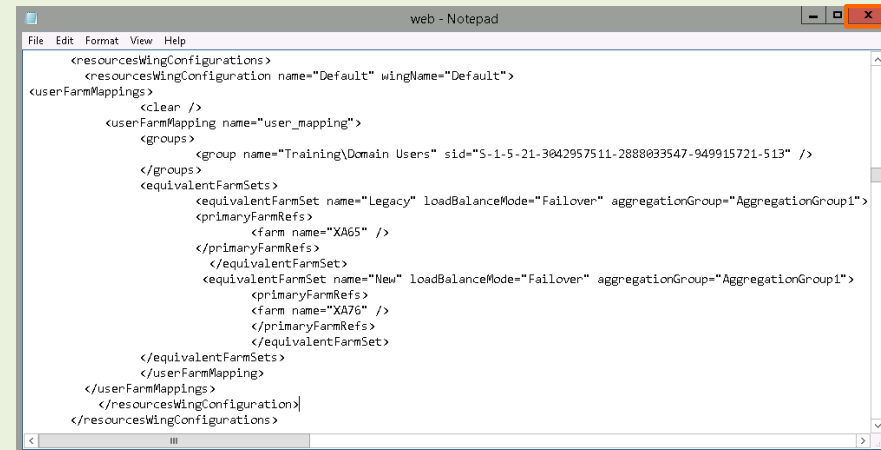


The screenshot shows a Notepad window titled "web - Notepad" containing XML code. The "File" menu is open, and the "Save" option is highlighted. The XML code is as follows:

```
<resourcesWingConfigurations>
  <resourcesWingConfiguration name="Default" wingName="Default">
    <userFarmMappings>
      <clear />
      <userFarmMapping name="user_mapping">
        <groups>
          <group name="Training\Domain Users" sid="S-1-5-21-3042957511-2888033547-949915721-513" />
        </groups>
        <equivalentFarmSets>
          <equivalentFarmSet name="Legacy" loadBalanceMode="Failover" aggregationGroup="AggregationGroup1">
            <primaryFarmRefs>
              <farm name="XA65" />
            </primaryFarmRefs>
          </equivalentFarmSet>
          <equivalentFarmSet name="New" loadBalanceMode="Failover" aggregationGroup="AggregationGroup1">
            <primaryFarmRefs>
              <farm name="XA76" />
            </primaryFarmRefs>
          </equivalentFarmSet>
        </equivalentFarmSets>
      </userFarmMapping>
    </userFarmMappings>
  </resourcesWingConfiguration>
</resourcesWingConfigurations>
```

Click **File** and then click **Save**.

12.

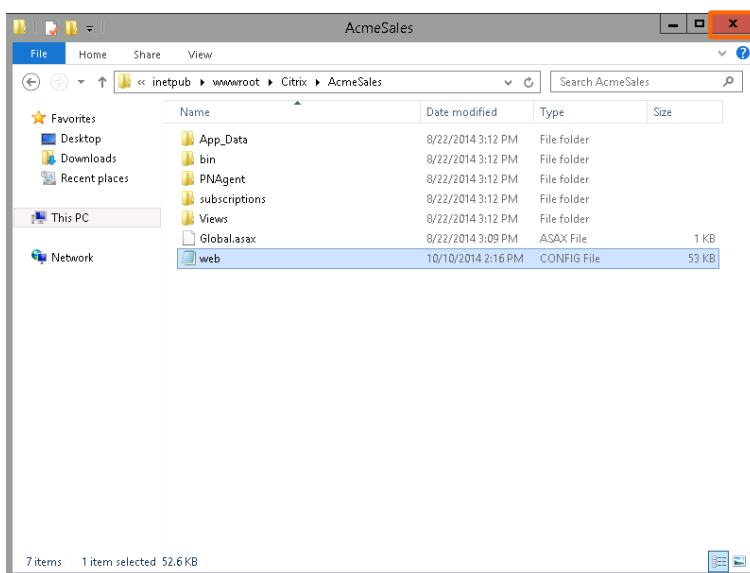


The screenshot shows a Notepad window titled "web - Notepad" containing XML code. The code is as follows:

```
<resourcesWingConfigurations>
  <resourcesWingConfiguration name="Default" wingName="Default">
    <userFarmMappings>
      <clear />
      <userFarmMapping name="user_mapping">
        <groups>
          <group name="Training\Domain Users" sid="S-1-5-21-3042957511-2888033547-949915721-513" />
        </groups>
        <equivalentFarmSets>
          <equivalentFarmSet name="Legacy" loadBalanceMode="Failover" aggregationGroup="AggregationGroup1">
            <primaryFarmRefs>
              <farm name="XA65" />
            </primaryFarmRefs>
          </equivalentFarmSet>
          <equivalentFarmSet name="New" loadBalanceMode="Failover" aggregationGroup="AggregationGroup1">
            <primaryFarmRefs>
              <farm name="XA76" />
            </primaryFarmRefs>
          </equivalentFarmSet>
        </equivalentFarmSets>
      </userFarmMapping>
    </userFarmMappings>
  </resourcesWingConfiguration>
</resourcesWingConfigurations>
```

Close **Notepad**.

13.



Close **File Explorer**.

14.

Close the SF1 Remote Desktop Connection window by clicking the **X** in the upper-right corner and then clicking **OK**.

15.



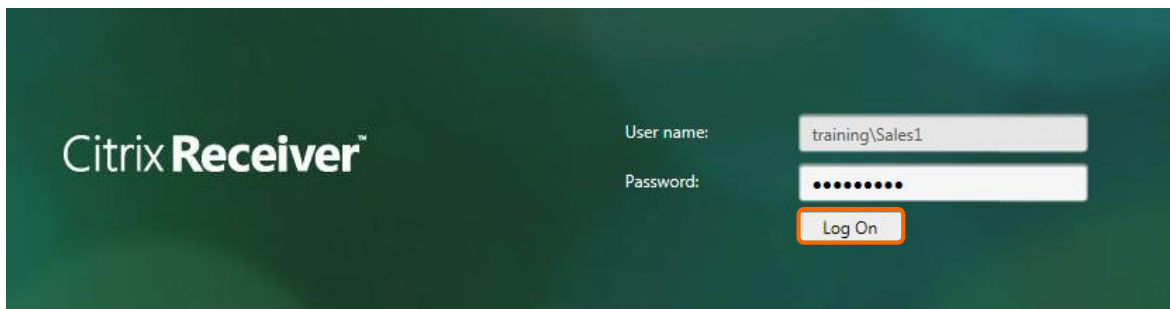
Click the Internet Explorer icon at the lower left of the Student Desktop

16.

Enter the URL of the XenApp 7.6 Store

<http://sf1/Citrix/AcmeSalesWeb/>

17.

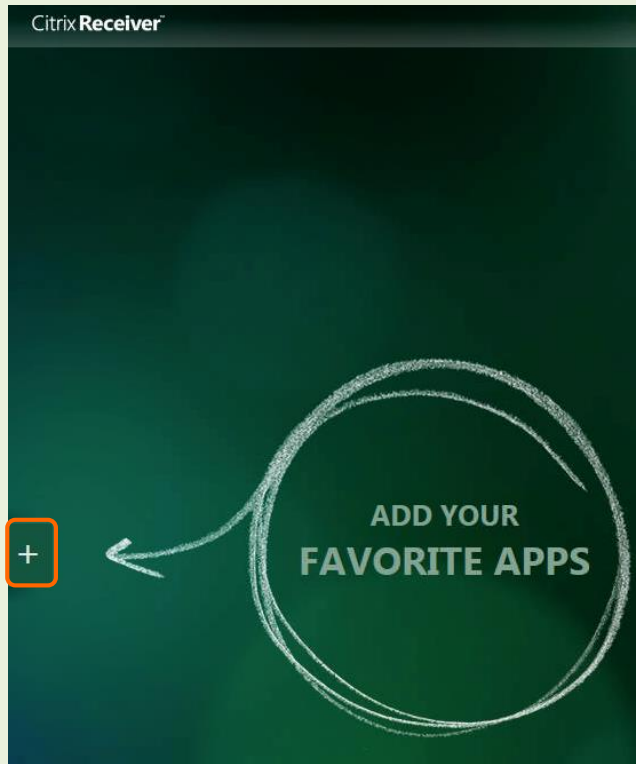


Enter the following:

User Name	training\Sales1
Password	Citrix123

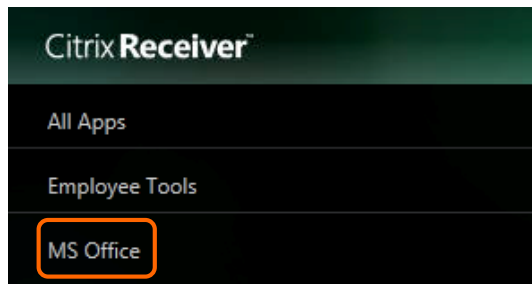
Click **Log On**.

18.



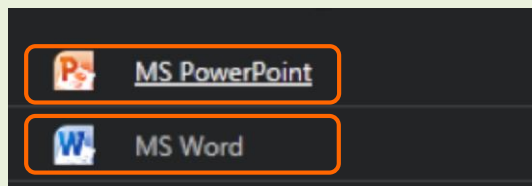
Click the + at the left side of the Citrix Receiver window.

19.



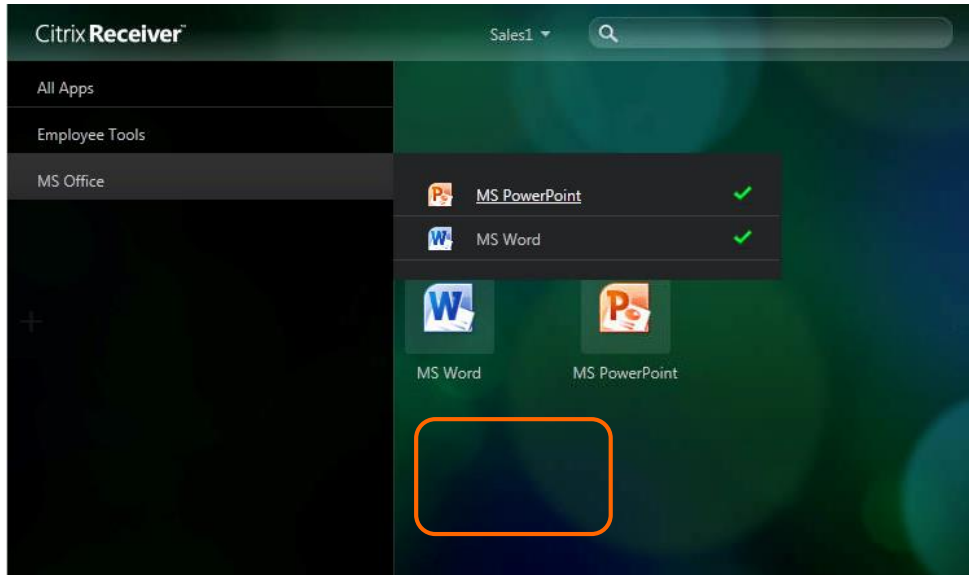
Click **MS Office**.

20.



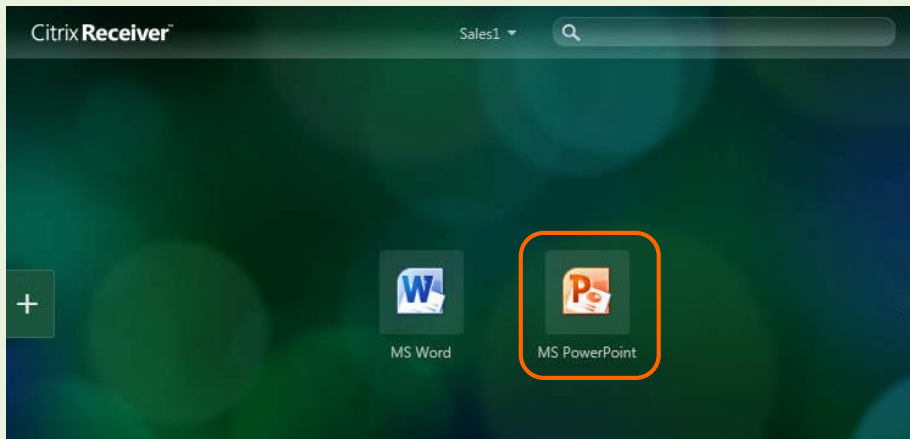
Notice that now only one MS PowerPoint and one MS Word is displayed in the Add Applications menu. Click **MS PowerPoint** and **MS Word** to add them to the Sales1 user's subscriptions.

21.



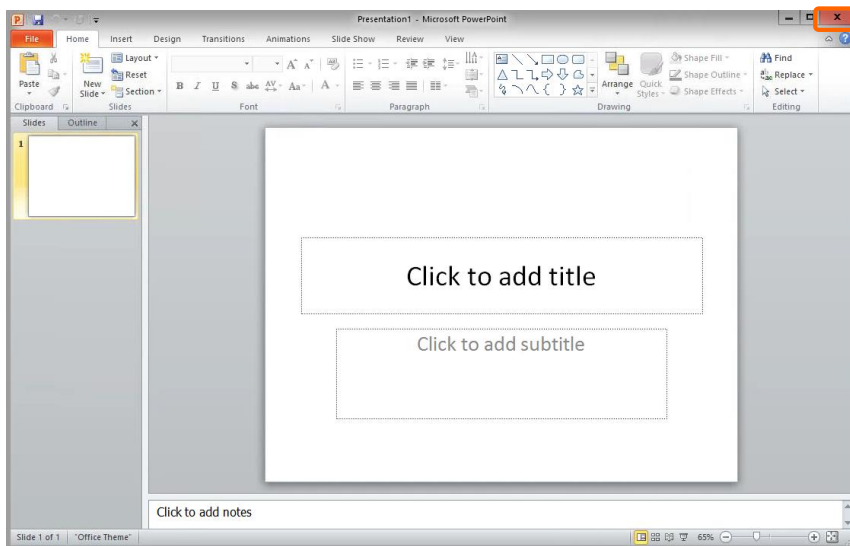
Click in the **green** area to close the Add Applications menu.

22.



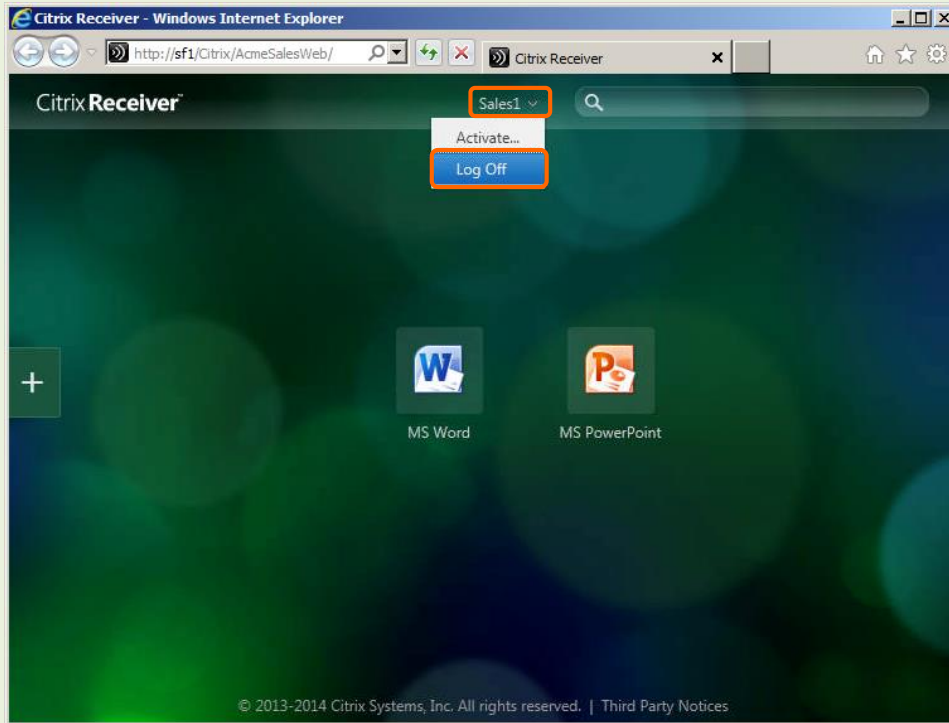
Click **MS PowerPoint** to launch the application.

23.



Verify that Microsoft PowerPoint launches. Close **PowerPoint**.

24.



Click **Sales1** and click **Log Off**.

25. Close Internet Explorer by clicking the **X** in the upper-right corner.

Exercise Summary

In this exercise, you configured application de-duplication by editing the web.config file for the AcmeSales store. You set the load-balancing mode to failover and tested accessing the applications from Citrix Receiver for Web.

Exercise 5: Disabling User Subscriptions

Overview


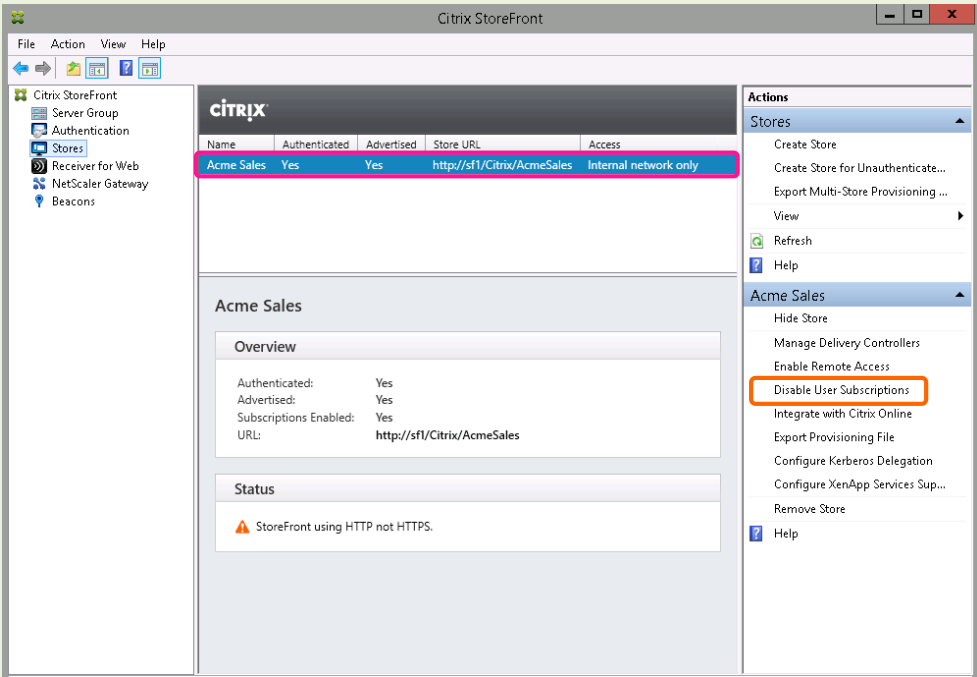
Transitioning to StoreFront from Web Interface can be a difficult adjustment for some users. By using disabling User Subscriptions, we can give Storefront a similar look and feel to Web Interface. Application categories are used to group applications for the end-user and appear in the subscriptions menu of receiver if user subscriptions are enabled. If user subscriptions are disabled, the categories will appear as folders, just like in Web Interface.

In this exercise you will:

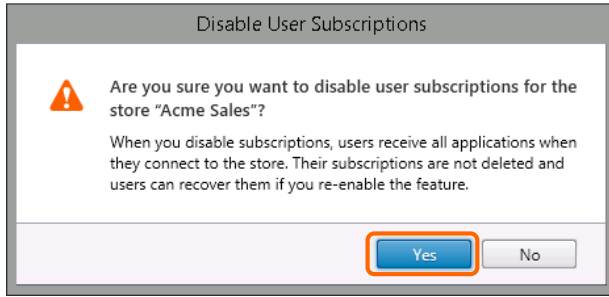
- Disable user subscriptions.
- View the category as a folder in Receiver for Web.

Step by step guidance

Estimated time to complete this exercise: 10 minutes.

Step	Action
1.	<p>On the Student Desktop, double-click the SF1 shortcut.</p> 
2.	<p>StoreFront allows a user to choose which applications they “subscribe” to. With “subscriptions” enabled, subscribed apps are the only applications displayed in receiver when they log on. If you disable subscriptions, all available applications to the user are displayed when they connect to the store. User subscriptions are not deleted when disabled and will be retained when subscriptions are re-enabled.</p>  <p>Verify Acme Sales is selected and then click Disable User Subscriptions on the right.</p>

3.



Click **Yes** on the Disable Users Subscriptions dialog box.



Disabling subscriptions will remove the user's ability to add specific applications to Receiver. All available applications will appear for the user.

4.



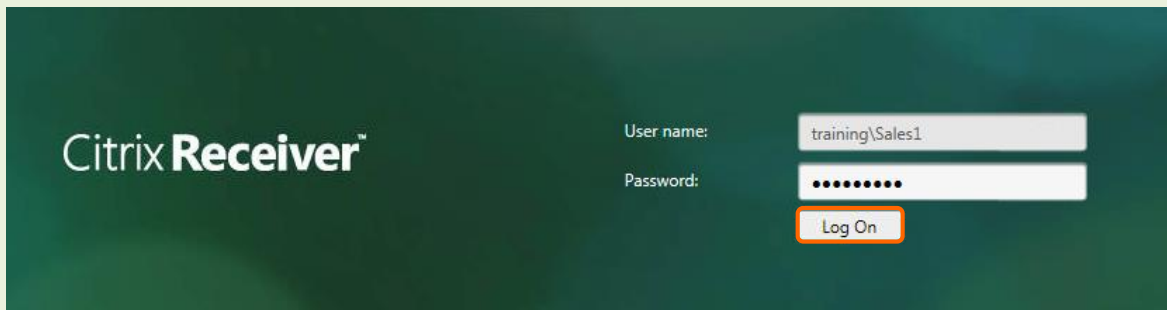
Click the Internet Explorer icon at the lower-left of the Student Desktop.

5.

Enter the URL of the XenApp 7.6 Store:

<http://sf1/Citrix/AcmeSalesWeb/>

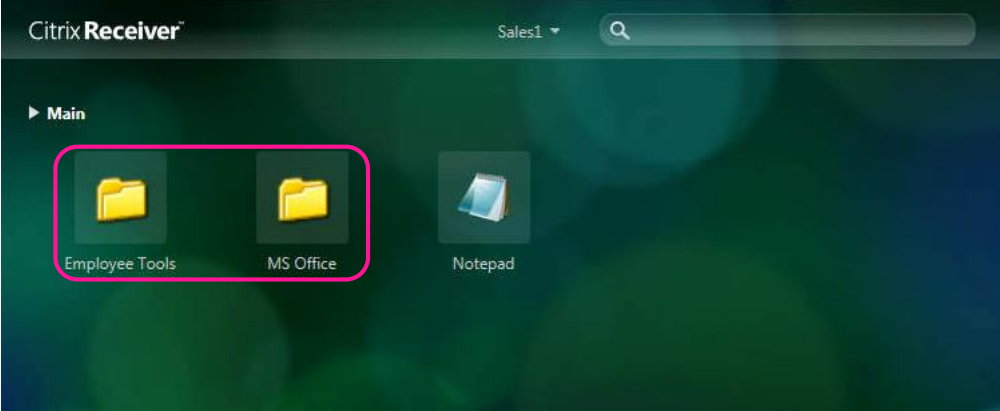
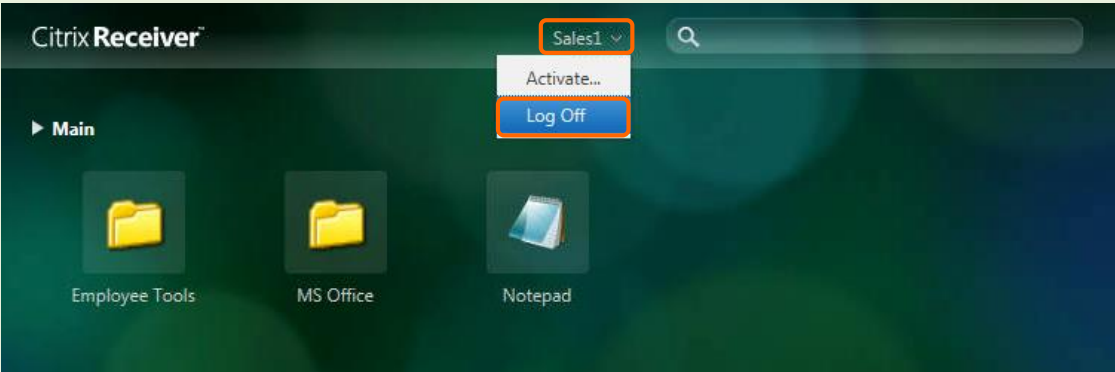
6.



Enter the following:

User Name	training\Sales1
Password	Citrix123

Click **Log On**.

7.	 <p>Notice that with user subscriptions disabled, Employee Tools and MS Office are now displayed as folders. This gives StoreFront a look and feel similar to Web Interface.</p>
8.	 <p>Click Sales1 and click Log Off.</p>
9.	Close Internet Explorer by clicking the X in the upper-right corner.
10.	Close the SF1 Remote Desktop Connection window by clicking the X in the upper-right corner and then clicking OK .

Exercise Summary

In this exercise, you configured application categories in Studio and then viewed them as the end-user in Receiver for Web. You then disabled user subscriptions to give StoreFront a similar look and feel to Web Interface.

Module 2

Transitioning Farm and Policy Data to XenApp 7.6

The XenApp 6.5 migration tool helps you efficiently and quickly transition from a XenApp 6.5 farm to a Site running XenApp 7.6. This is helpful in deployments that contain large numbers of applications and Citrix policies – lowering the risk of inadvertently introducing errors when manually moving applications and Citrix policies to the new XenApp Site.

The XenApp 6.5 Farm data and policies are migrated to the XenApp 7.6 farm using a series of PowerShell scripts.

The scripts

ExportPolicy.psm1	Script module for exporting XenApp 6.5 policies to a XML file
ExportXAFarm.psm1	Script module for exporting XenApp 6.5 farm settings to a XML file
ExportPolicy.psd1	Manifest file for script module ExportPolicy.psm1
ExportXAFarm.psd1	Manifest file for script module ExportXAFarm.psm1
ImportPolicy.psm1	Script module for importing policies to XenApp/XenDesktop 7.5
ImportXAFarm.psm1	Script module for importing applications to XenApp/XenDesktop 7.5
ImportPolicy.psd1	Manifest file for script module ImportPolicy.psm1
ImportXAFarm.psd1	Manifest file for script module ImportXAFarm.psm1
LogUtilities.psm1	Shared Script module that contains logging functions
XmlUtilities.psm1	Shared Script module that contains XML functions
XmlUtilities.psd1	Manifest file for script module XmlUtilities.psm1
PolicyData.xsd	XML schema for policy data
XAFarmData.xsd	XML schema for XenApp farm data.

Prerequisites

The user must have sufficient permissions to change the PowerShell execution policy.

The export scripts should be used on a XenApp 6.5 server system. The user should be an administrator of the XenApp 6.5 farm. The user should have at least read privileges. The server must have the Citrix XenApp Commands PowerShell and Citrix Group Policy PowerShell provider snap-in installed.

The import scripts should be used on a XenApp/XenDesktop 7.6 DDC system. The user should be an administrator that has permissions to create objects in the site. The server must have the Citrix XenApp Commands PowerShell and Citrix Group Policy PowerShell provider snap-in installed.

At least one application must be present in the XML data file for Import-XAFarm. If the XML file has been exported from a farm that doesn't have any applications published, using this XML as the input for the Import-XAFarm command will result in an error.

Recommendations

When importing applications using Import-XAFarm, an existing Delivery Group should be provided on the command line. Although the script will create a default Delivery Group of type AppsOnly and Shared Delivery Group if a Delivery Group is not specified, the Delivery Group created by the script are not fully initialized.

Security considerations

The XML files created by the export scripts may contain sensitive information about your environment and organization. For example, user names, server names, and other XenApp farm and policy configuration data are stored in the XML files. Use caution when storing and handling these files. The files should be stored at locations that are secure from unauthorized accesses.

Users should carefully review the XML files before using them as input for importing policies and applications. The XML files can be modified by users as a way to control the import. If the files are not fully secured, the XML files could have been modified without authorization.

Policy object assignments (previous known as policy filters) control how policies are applied. After the policies are imported, carefully review the object assignments for each policy to ensure that there are no security vulnerabilities as a result of the import. Different sets of users, IP addresses, or client names may be applied to the policy after the import. Allow/deny may have different meanings after the import.

Only Citrix policy settings are imported by the policy import script.

Limitations

1. Not all policies are imported. Settings that are not supported by XenApp/XenDesktop 7.6 are ignored.
2. Only applications are imported from the XML data file generated by Export-XAFarm. Applications that are not supported by XenApp/XenDesktop 7.6 and other types are not imported.
3. Delivery Groups may be created to allow applications to be imported. By default, a Delivery Group named with the farm name appended with a string " - Delivery Group" is created. The default Delivery Group name can be specified by the user on the command line for Import-XAFarm. Individual applications may be assigned to different Delivery Groups by providing a <DeliveryGroup> tag in the XML block for that application in the data file.
4. Application users are not imported.
5. Application servers are not imported.
6. Application icons are imported only if the icon data is available. See the help for Export-XAFarm and Import-XAFarm for more information on how icon data is exported and imported.

Further details on the limitations of the upgrade process can be found in the Migration Guide: <http://support.citrix.com/proddocs/topic/xenapp-xendesktop-76/xad-xamigrate.html>

Migration Scripts can be downloaded from the Additional Components Section of the tilXenApp 7.6 Product Download page: <https://www.citrix.com/downloads/xenapp/product-software/xenapp-76-platinum-edition>

Exercises in this module

Exercise 1: Exporting Data from XenApp 6.5 Farm

Exercise 2: Review and Edit XML Files

Exercise 3: Importing Data to XenApp 7.6 Site

Exercise 1: Exporting Data from XenApp 6.5 Farm

Overview

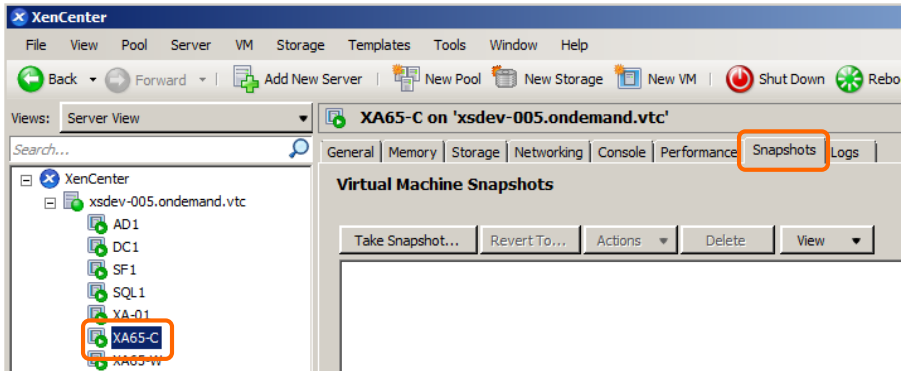
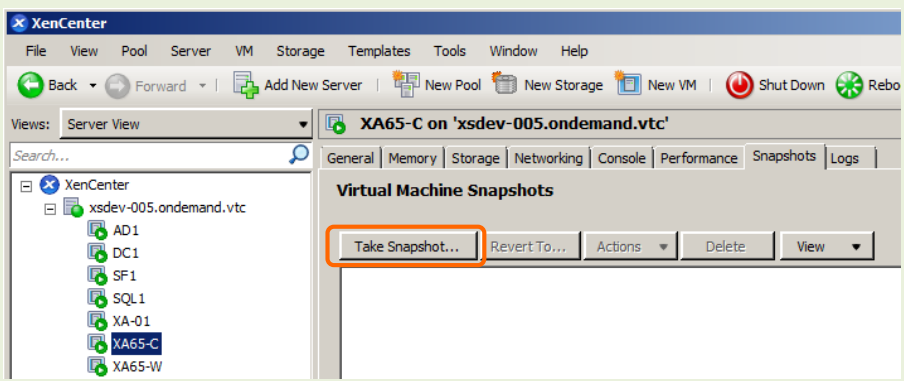
The first step of the migration is to export the XenApp 6.5 farm data and polices into two XML files.

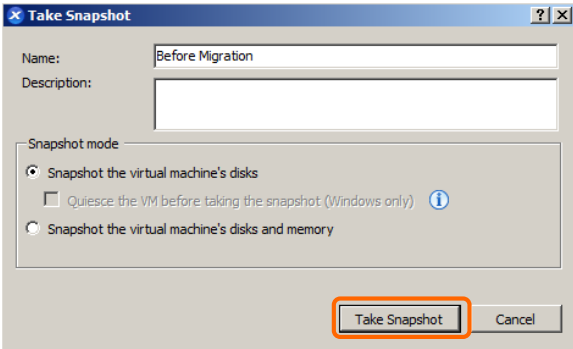
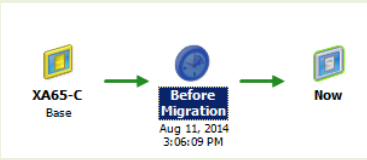
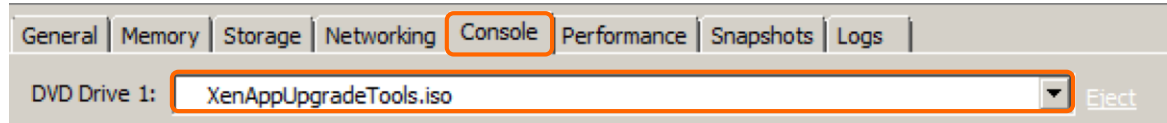


In this exercise you will:

- Perform a snapshot of the XenApp 6.5 Controller
- Copy the scripts locally
- Setup PowerShell for the import
- Export the farm data and polices from the XenApp 6.5 controller, to two files, myfarm.xml and mypolicies.xml.

Step by step guidance

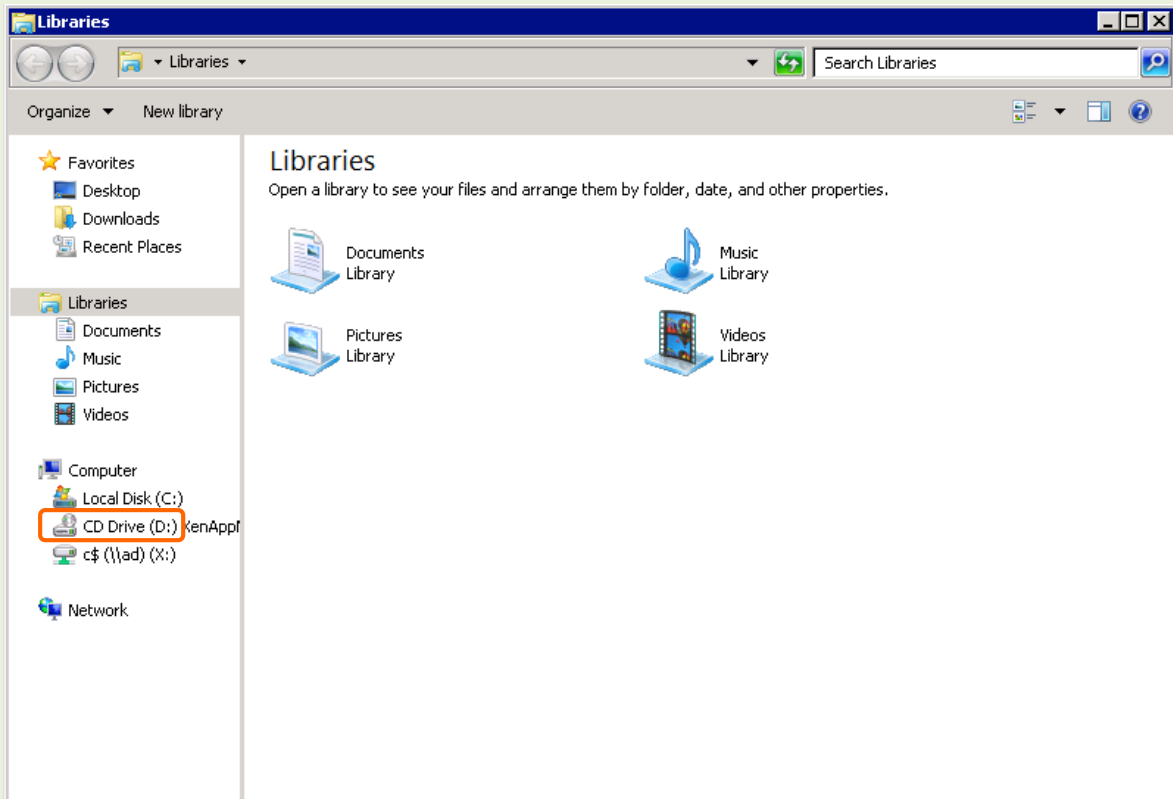
Estimated time to complete this exercise: 15 minutes.

Step	Action
1.	<p>Even though the migration process is simply exporting data from the XenApp 6.5 deployment controller, it is a good idea to create a precautionary snapshot of the XenApp 6.5 controller VM before you start.</p>  <p>Using XenCenter, select the XA65-C node and the Snapshots tab.</p>
2.	 <p>Click Take Snapshot...</p>

Step	Action		
3.	 <p>Enter the following:</p> <table border="1" data-bbox="298 575 959 611"> <tr> <td>Name</td> <td>Before Migration</td> </tr> </table> <p>Click Take Snapshot.</p>	Name	Before Migration
Name	Before Migration		
4.	 <p>The Snapshot is taken, allowing you to return this VM to this state at any time.</p>		
5.	 <p>Select the console tab of the XA65-C node and using the DVD Drive 1 selector, select the XenAppUpgradeTools.iso DVD</p>		
6.	<p>On the Student Desktop double-click the XA65-C shortcut.</p> 		
7.	 <p>On the XA65-C desktop taskbar, launch File Explorer.</p>		

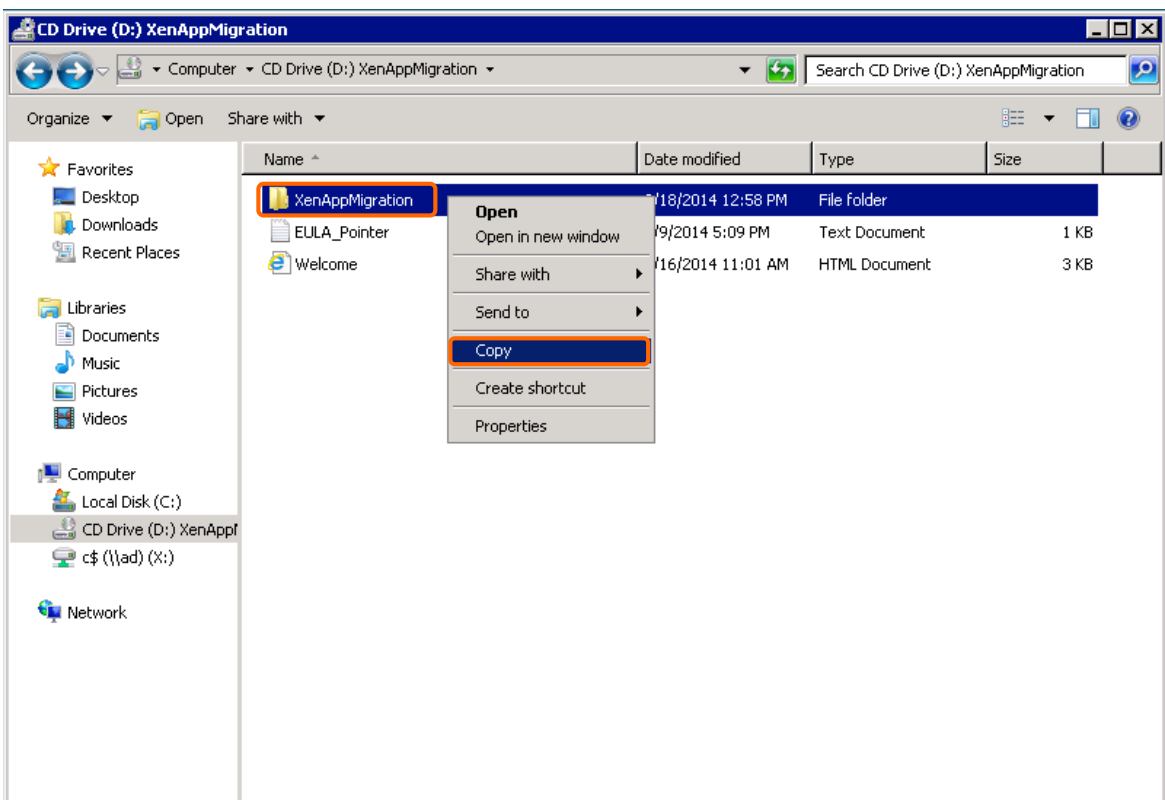
Step Action

8.



Click **CD Drive (D:)** on the left.

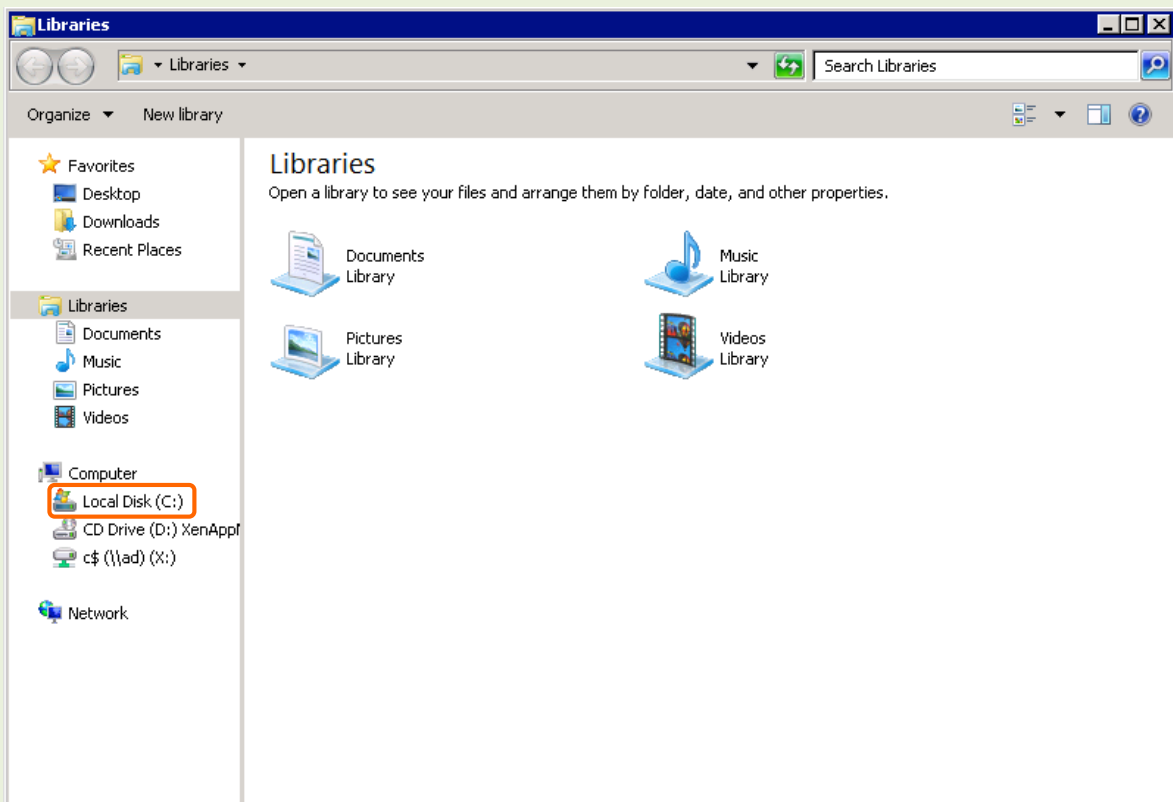
9.



Right-click the **XenAppMigration** folder and click **Copy**.

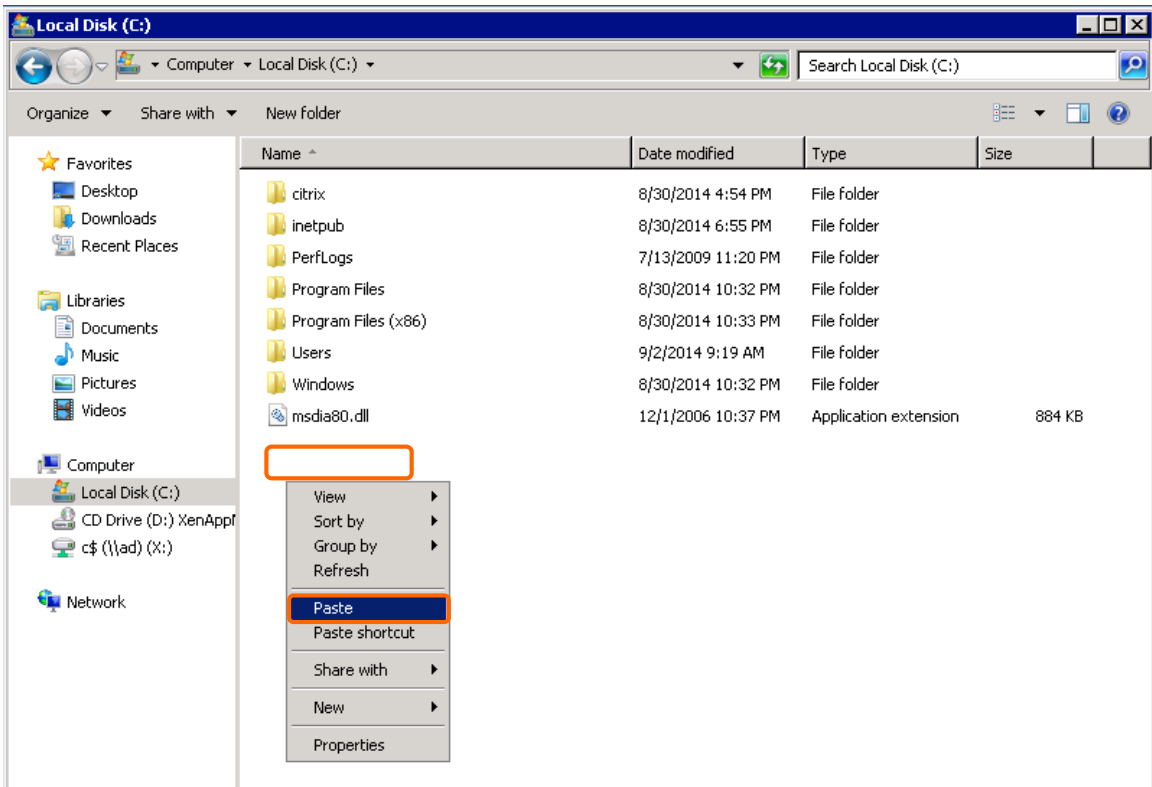
Step Action

10.

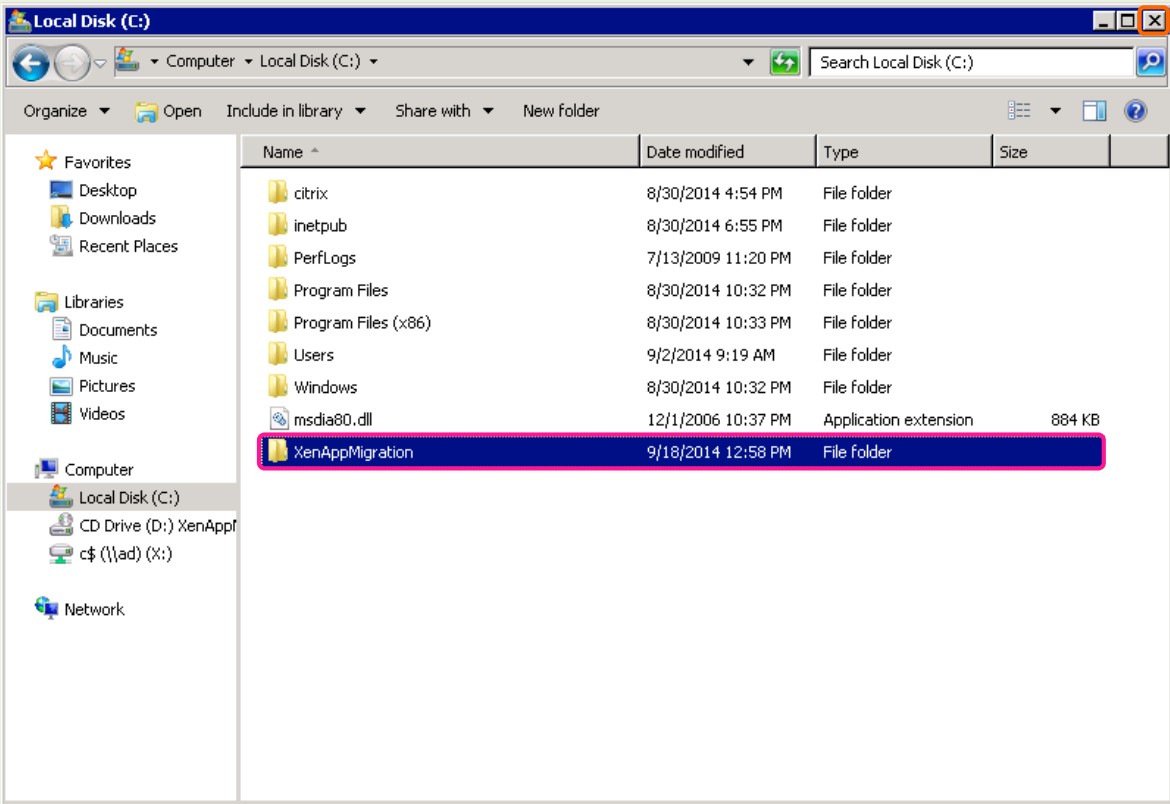

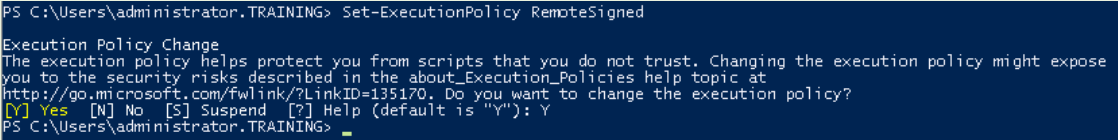



Click **Local Disk (C:)** on the left.

11.

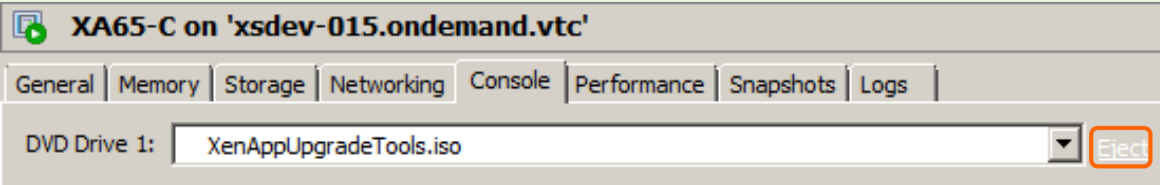


Right-click in the **Empty Area** and click **Paste**.

Step	Action
12.	 <p>Verify that the XenAppMigration folder appears on Local Disk (C:), close File Explorer.</p>
13.	 <p>On the XA65-C desktop taskbar, launch Windows PowerShell.</p>
14.	<p>Enter the following command:</p> <pre>Set-ExecutionPolicy RemoteSigned</pre> <p>Type y <Enter> to the policy change question.</p> 
15.	<p>Change to the previously copied XenAppMigration directory.</p> <p>Enter the following command:</p> <pre>cd c:\XenAppMigration</pre> 

Step	Action
16.	<p>Import PowerShell modules required for the migration.</p> <p>Enter the following commands:</p> <pre>Import-Module .\ExportPolicy.psdl Import-Module .\ExportXAFarm.psdl</pre> <pre>PS C:\XenAppMigration> Import-Module .\ExportPolicy.psdl PS C:\XenAppMigration> Import-Module .\ExportXAFarm.psdl PS C:\XenAppMigration> _</pre>
17.	<p>Export the farm settings by entering the following command:</p> <pre>Export-XAFarm -XmlOutputFile ".\CompleteFarm.XML" -LogFile ".\CompleteFarm.Log"</pre> <pre>PS C:\XenAppMigration> Export-XaFarm -XmlOutputFile ".\CompleteFarm.XML" -LogFile ".\CompleteFarm.Log" XenApp 6.5 to XenApp/XenDesktop 7.6 Migration Tool Version 20140918-1258 Exporting farm configuration logging settings Exporting administrators Exporting administrator "TRAINING\administrator" 1 administrators exported Exporting applications Exporting application "MS Word" Exporting application "MS PowerPoint" Exporting application "Command Prompt" Exporting application "MS Excel" Exporting application "XenApp Desktop" Exporting application "Calculator" Exporting application "Internet Explorer" Exporting application "Notepad" Exporting servers Exporting server XAG5-C Exporting server XAG5-W 2 servers exported Exporting load evaluators Exporting load evaluator "Advanced" Exporting load evaluator "Default" 2 load evaluators exported Exporting load balancing policies 0 load balancing policies exported Exporting printer drivers Exporting printer driver "Remote Desktop Easy Print" Exporting printer driver "Microsoft XPS Document Writer" Exporting printer driver "HP Color LaserJet 2800 Series PS" Exporting printer driver "Citrix XPS Universal Printer" Exporting printer driver "Citrix Universal Printer" 5 printer drivers exported Exporting worker groups 0 worker groups exported Exporting zones Exporting zone "DEFAULT ZONE" 1 zones exported Exporting completed successfully 1 administrators exported 2 servers exported 8 applications exported 0 worker groups exported 2 load evaluators exported 0 load balancing policies exported 5 printer drivers exported 1 zones exported XenApp 6.5 farm export completed Log has been saved to .\CompleteFarm.Log PS C:\XenAppMigration> _</pre>

Step	Action
18.	<p>Verify one directory and two files were produced:</p> <pre>ls Complete*</pre>  <pre>PS C:\XenAppMigration> ls Complete* Directory: C:\XenAppMigration Mode LastWriteTime Length Name ---- - d----- 10/13/2014 1:46 PM CompleteFarm-icons -a---- 10/13/2014 1:46 PM 9466 CompleteFarm.Log -a---- 10/13/2014 1:46 PM 31734 CompleteFarm.XML PS C:\XenAppMigration> _</pre> <p>You should see the XML file containing the farm data and a log file containing the text you just saw on the screen. In addition there is a directory (CompleteFarm-icons) containing files representing the icons of the hosted applications found.</p>
19.	<p>Export the farm policies by entering the following command:</p> <pre>Export-Policy -XmlOutputFile ".\CompletePolicies.XML" -LogFile ".\CompletePolicies.Log"</pre>  <pre>PS C:\XenAppMigration> Export-Policy -XmlOutputFile ".\CompletePolicies.XML" -LogFile ".\CompletePolicies.Log" XenApp 6.5 to XenApp/XenDesktop 7.6 Migration Tool Version 20140918-1258 Exporting user policies Exporting policy "Unfiltered" Exporting policy "Baseline" 2 user policies exported Exporting computer policies Exporting policy "Unfiltered" 1 computer policies exported Policy export completed Log has been saved to .\CompletePolicies.Log PS C:\XenAppMigration> _</pre>
20.	<p>Verify two files were produced:</p> <pre>ls CompleteP*</pre>  <pre>PS C:\XenAppMigration> ls CompleteP* Directory: C:\XenAppMigration Mode LastWriteTime Length Name ---- - -a---- 10/13/2014 1:53 PM 5276 CompletePolicies.Log -a---- 10/13/2014 1:53 PM 4544 CompletePolicies.XML PS C:\XenAppMigration> _</pre> <p>You may check the log file located at C:\XenAppMigration for errors.</p>
21.	 <p>On the Student Desktop, switch to XenCenter.</p>

Step	Action
22.	 <p>Using XenCenter, eject the XenAppUpgradeTools.iso by clicking Eject.</p>

Exercise Summary

You have exported the XenApp 6.5 farm information and policies into two xml files.

Exercise 2: Review and Edit XML Files

Overview


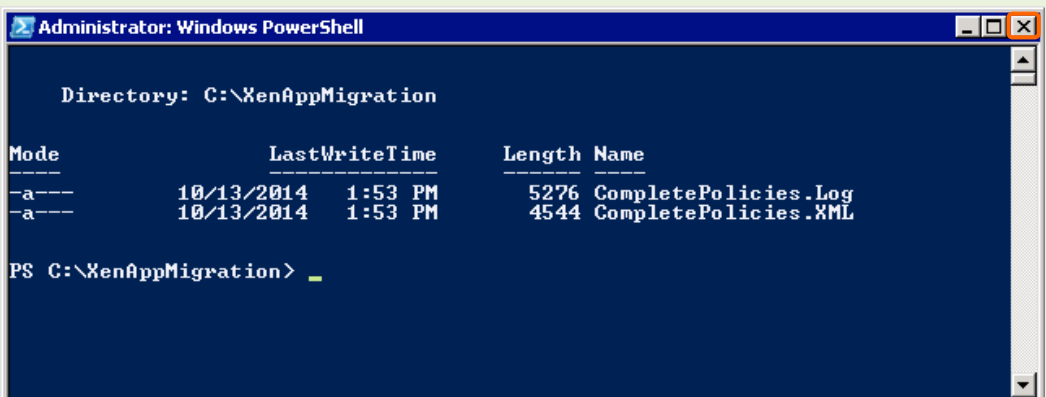

The XML files exported from the XenApp 6.5 Farm can be edited before import. Qualified administrators can remove applications, change applications settings or modify user assignments through modification of the files contents.

In this exercise you will:

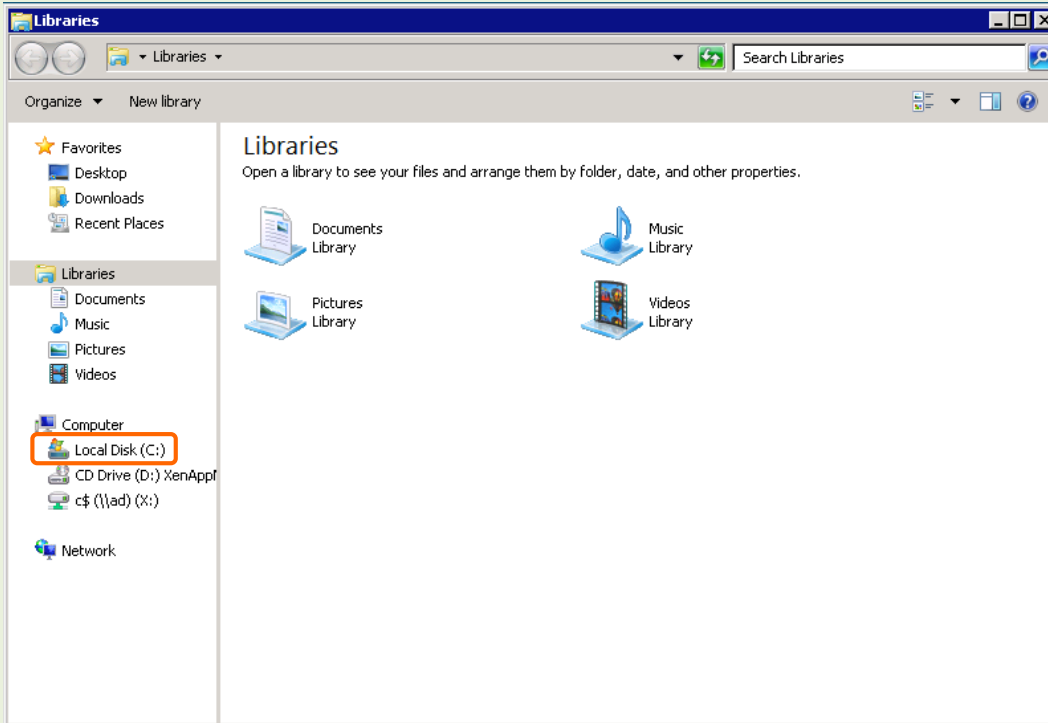
- Create a backup of CompleteFarm.xml
- Edit the CompleteFarm.xml file

Step by step guidance

Estimated time to complete this exercise: 10 minutes.

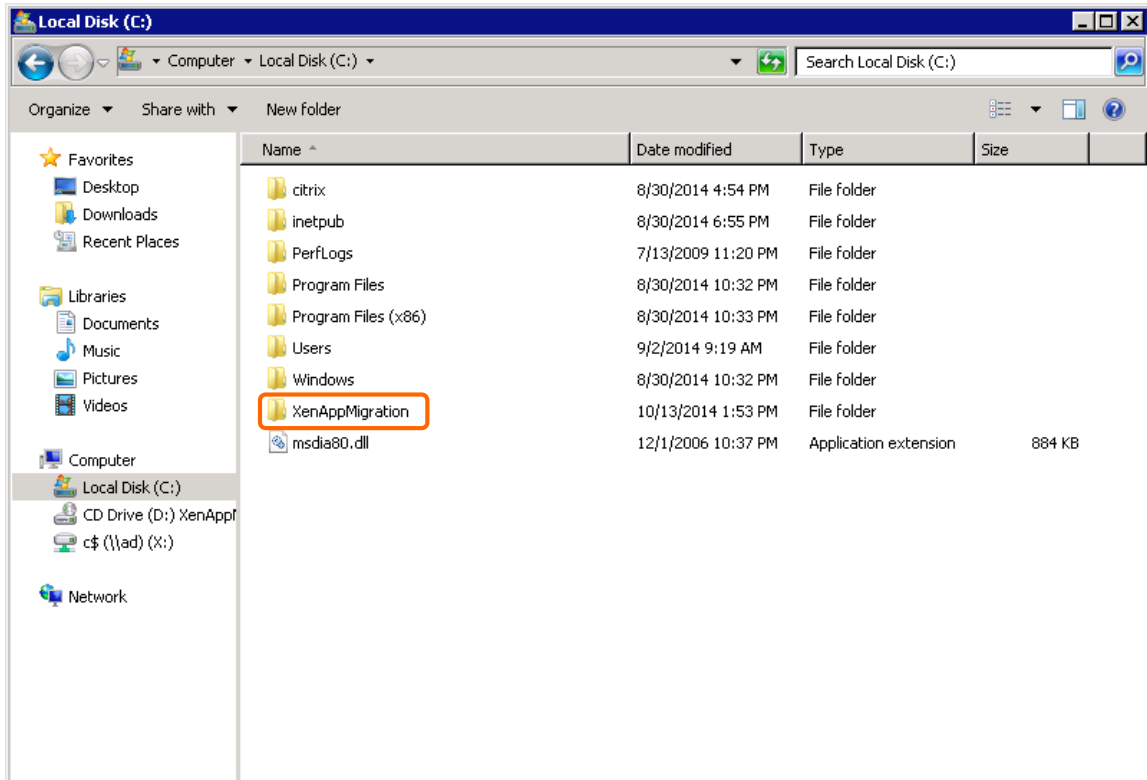
Step	Action
1.	 <p>On the Student Desktop, switch to the XA65-C Remote Desktop Connection.</p>
2.	 <p>Close PowerShell.</p>
3.	 <p>On the XA65-C desktop taskbar, switch to File Explorer.</p>

4.



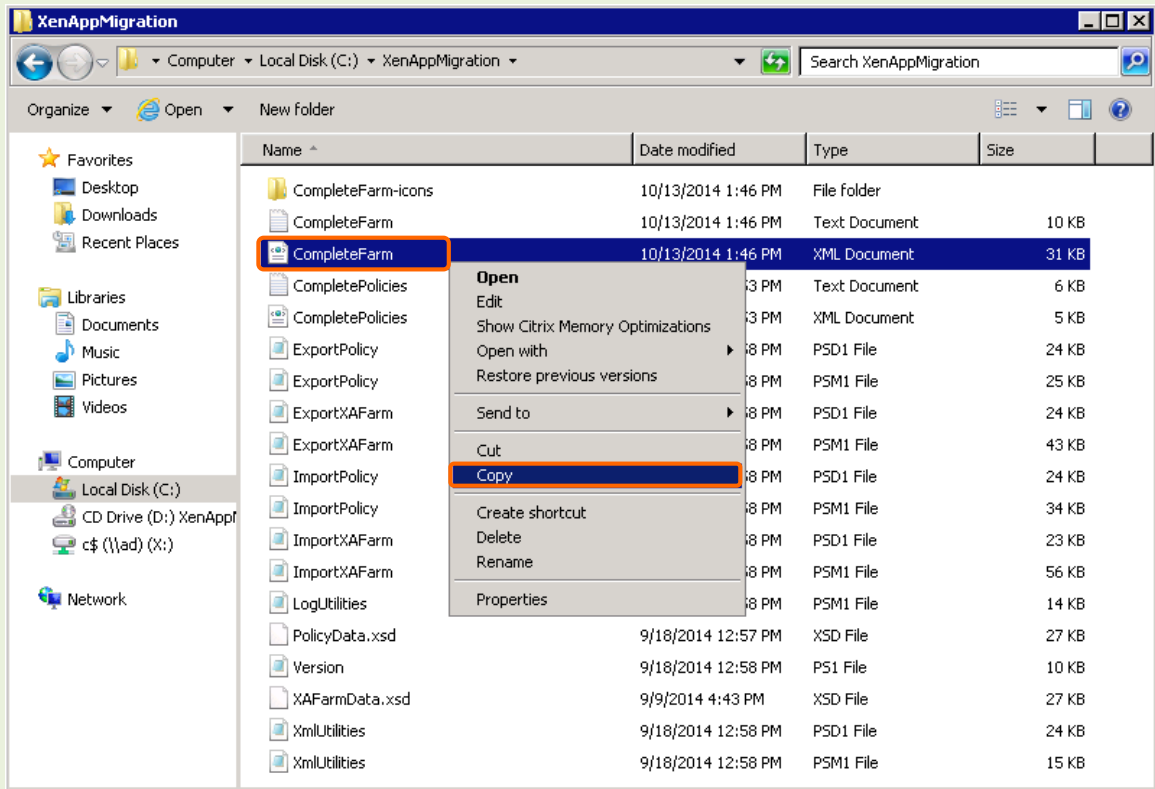
Click **Local Disk (C:)** on the left.

5.



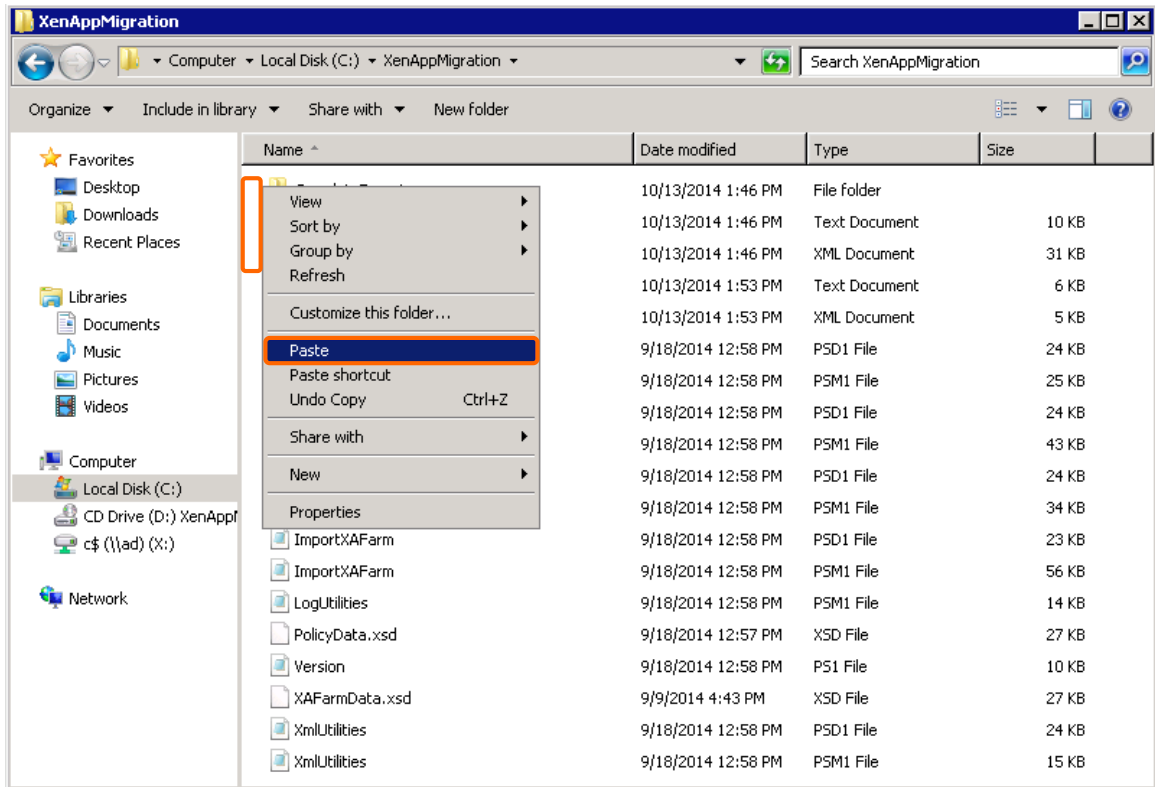
Double-click the **XenAppMigration** folder.

6.



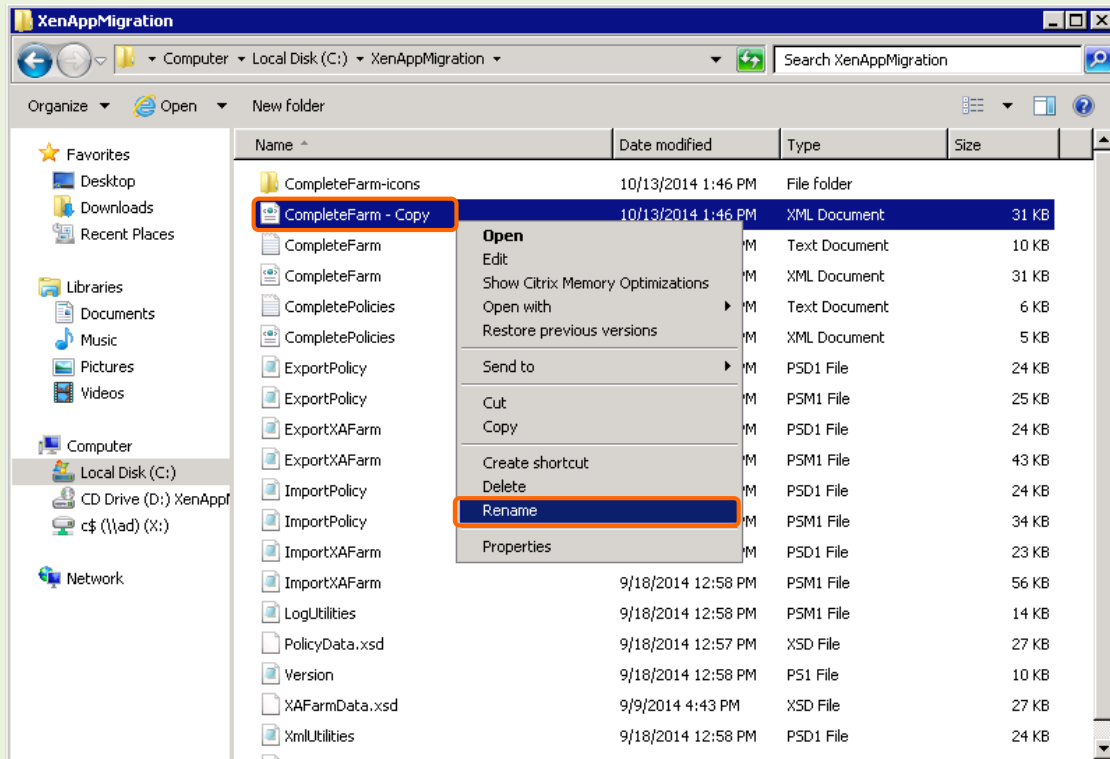
Right-click **CompleteFarm.xml** and select **Copy**.

7.



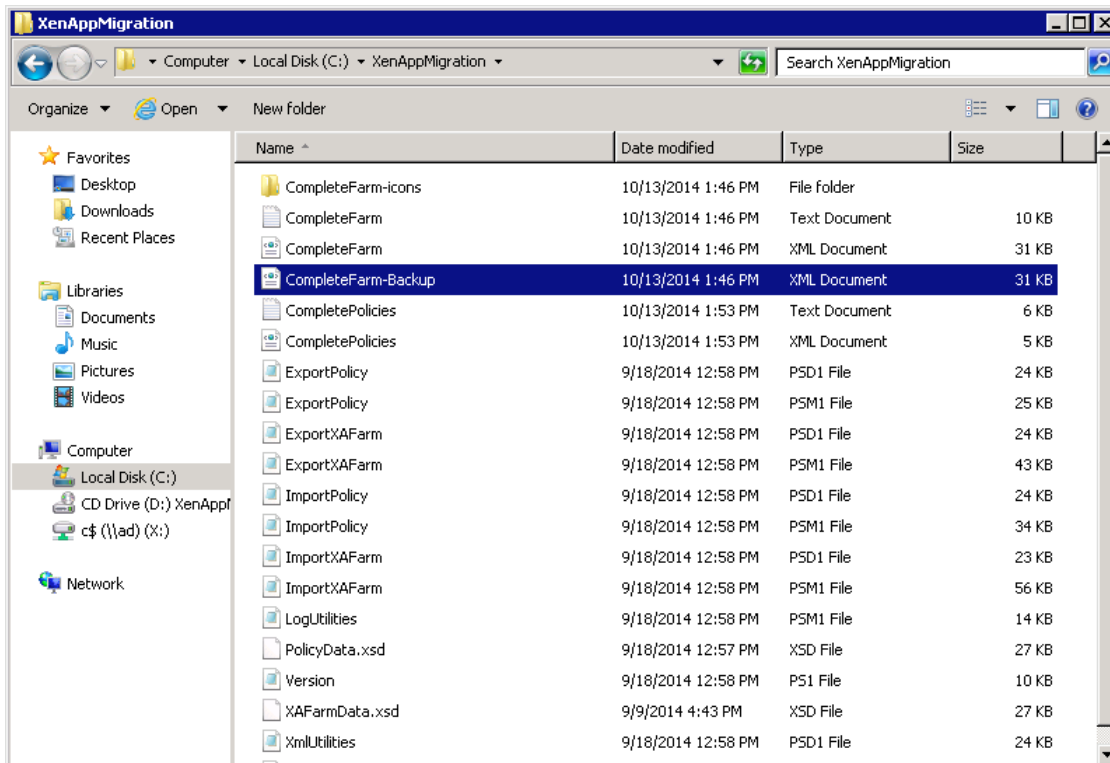
Right-click in the empty space to the left of the icons and select **Paste**.

8.



Right-click **CompleteFarm – Copy** and select **Rename**.

9.

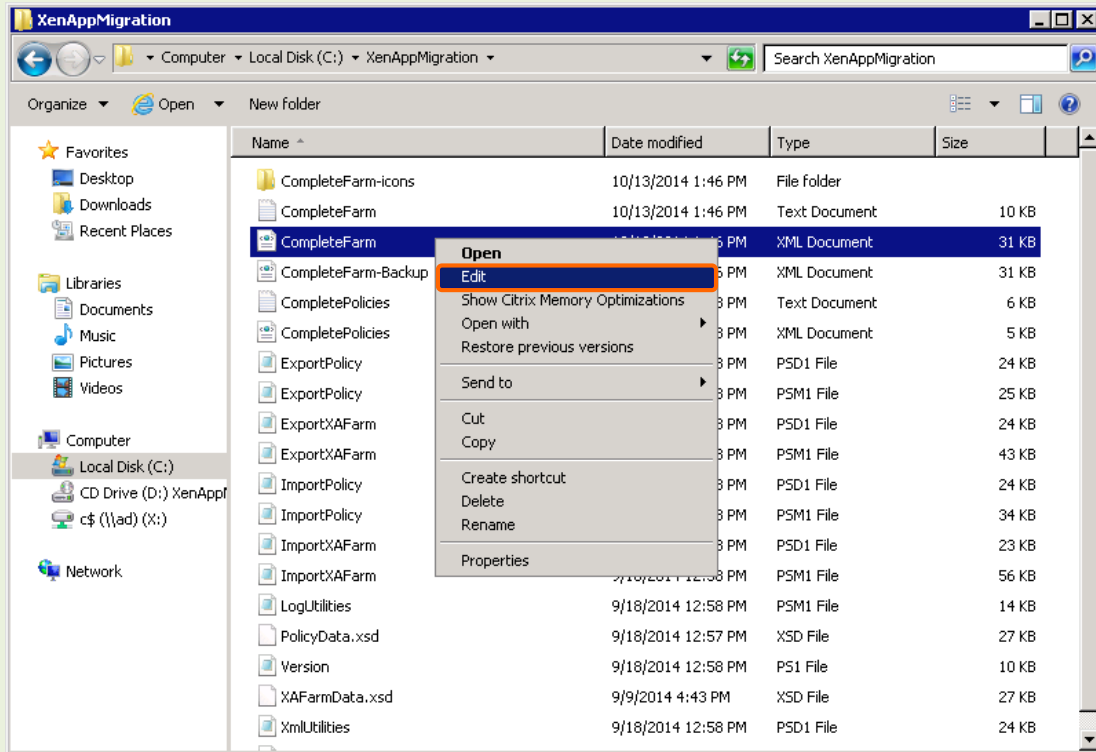


Enter the following name:

CompleteFarm-Backup

Press the Enter key.

10.



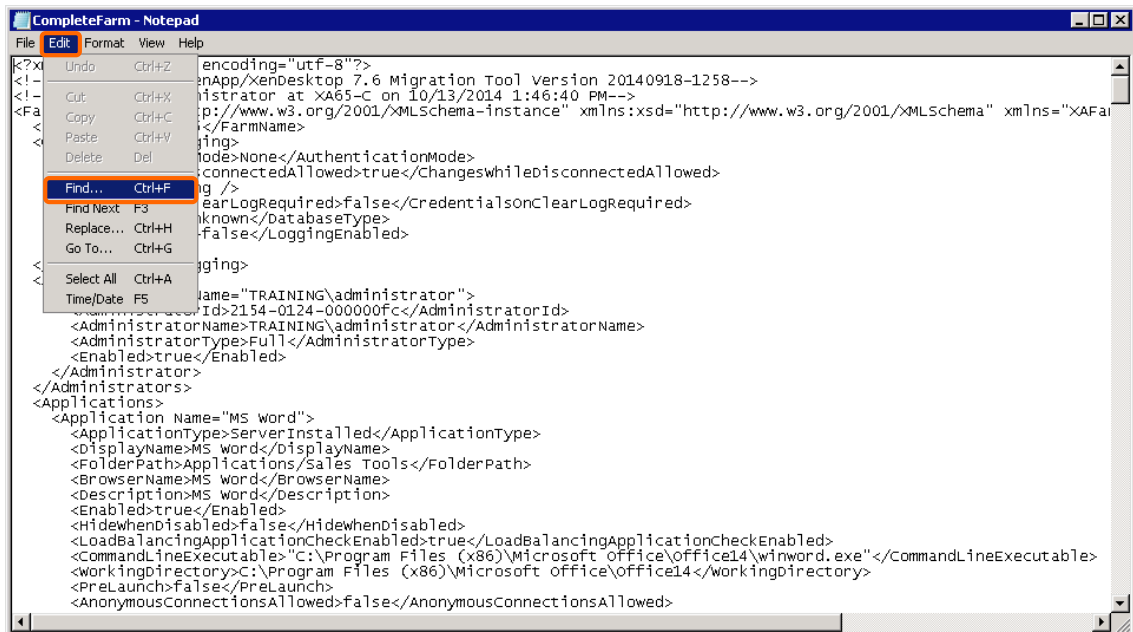
Right-click **CompleteFarm.xml** and click **Edit**.



XML files may contain sensitive information so they should be secured against unauthorized access.

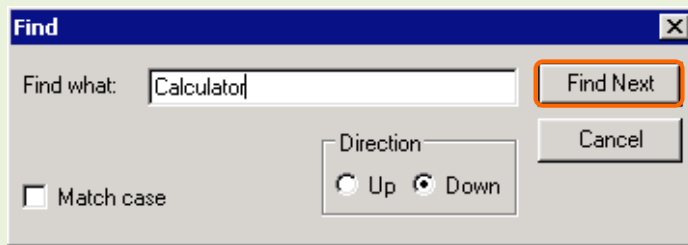
11.

The Acme IT Department has determined that it is no longer necessary to provide Calculator to Accounting users. You will remove calculator from the XML file so that it is not imported into XenApp 7.6 The CompleteFarm.xml file opens in Notepad by default unless an XML editor is installed.



Click **Edit** and select **Find...**

12.



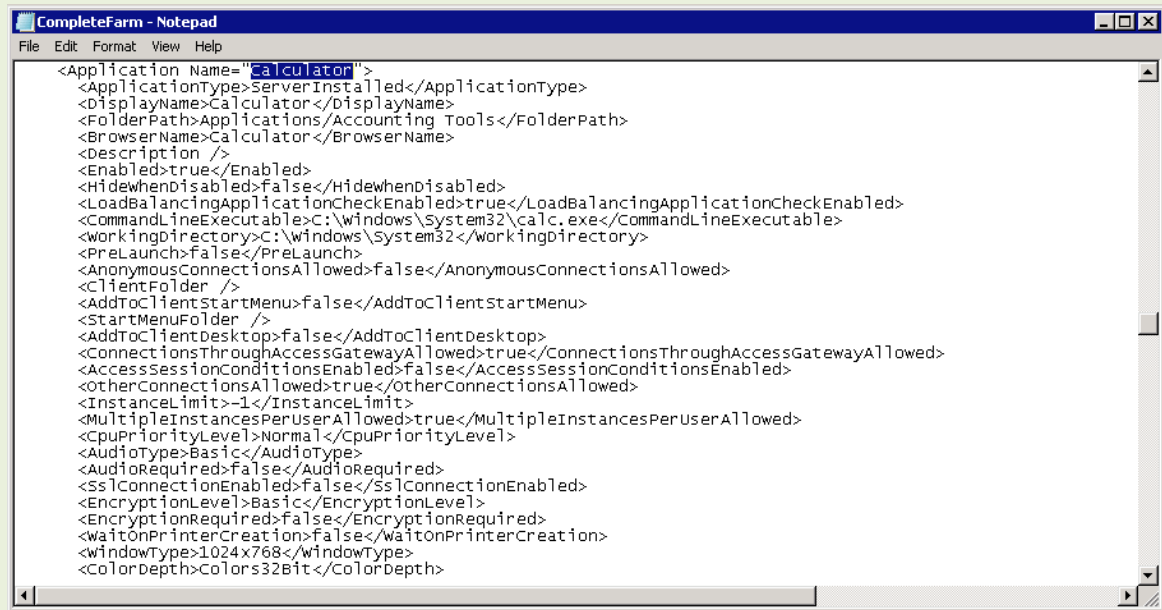
Enter the following in the Find window:

Click **Find Next**.

13.

Click the **X** at the upper-right to close the Find window.

14.



Scroll down so that the highlighted Calculator text is at the top.

15.

```

<Application Name="calculator">
  <ApplicationType>ServerInstalled</ApplicationType>
  <DisplayName>Calculator</DisplayName>
  <FolderPath>Applications\Accounting Tools</FolderPath>
  <BrowserName>Calculator</BrowserName>
  <Description />
  <Enabled>true</Enabled>
  <HideWhenDisabled>false</HideWhenDisabled>
  <LoadBalancingApplicationCheckEnabled>true</LoadBalancingApplicationCheckEnabled>
  <CommandLineExecutable>C:\windows\system32\calc.exe</CommandLineExecutable>
  <WorkingDirectory>C:\windows\system32</WorkingDirectory>
  <PreLaunch>false</PreLaunch>
  <AnonymousConnectionsAllowed>false</AnonymousConnectionsAllowed>
  <ClientFolder />
  <AddToClientStartMenu>false</AddToClientStartMenu>
  <StartMenuFolder />
  <AddToClientDesktop>false</AddToClientDesktop>
  <ConnectionsThroughAccessGatewayAllowed>true</ConnectionsThroughAccessGatewayAllowed>
  <AccessSessionConditionsEnabled>false</AccessSessionConditionsEnabled>
  <OtherConnectionsAllowed>true</OtherConnectionsAllowed>
  <InstanceLimit>-1</InstanceLimit>
  <MultipleInstancesPerUserAllowed>true</MultipleInstancesPerUserAllowed>
  <CpuPriorityLevel>Normal</CpuPriorityLevel>
  <AudioType>Basic</AudioType>
  <AudioRequired>false</AudioRequired>
  <SslConnectionEnabled>false</SslConnectionEnabled>
  <EncryptionLevel>Basic</EncryptionLevel>
  <EncryptionRequired>false</EncryptionRequired>
  <WaitOnPrinterCreation>false</WaitOnPrinterCreation>
  <WindowType>1024x768</WindowType>
  <ColorDepth>Colors32Bit</ColorDepth>

```

Notice that the Display Name, Folder Path, Command Line Executable and other application settings can be modified here.

16.

```

<waitOnPrinterCreation>false</waitOnPrinterCreation>
<windowType>1024x768</windowType>
<colorDepth>Colors32Bit</colorDepth>
<titleBarHidden>false</titleBarHidden>
<maximizedOnStartup>false</maximizedOnStartup>
<Accounts>
  <Account>
    <AccountAuthority>NTDomain\TRAINING</AccountAuthority>
    <AccountDisplayName>TRAINING\Accounting</AccountDisplayName>
    <AccountId>0x2/NT/TRAINING/S-1-5-21-3042957511-2888033547-949915721-8113</AccountId>
    <AccountName>Accounting</AccountName>
    <AccountType>Group</AccountType>
    <OtherName>Accounting</OtherName>
    <SearchPath>CN=Accounting,OU=Accounting,OU=Acme Users,DC=training,DC=lab</SearchPath>
  </Account>
  <Account>
    <AccountAuthority>NTDomain\TRAINING</AccountAuthority>
    <AccountDisplayName>TRAINING\Domain Admins</AccountDisplayName>
    <AccountId>0x2/NT/TRAINING/S-1-5-21-3042957511-2888033547-949915721-512</AccountId>
    <AccountName>Domain Admins</AccountName>
    <AccountType>Group</AccountType>
    <OtherName>Domain Admins</OtherName>
    <SearchPath>CN=Domain Admins,CN=Users,DC=training,DC=lab</SearchPath>
  </Account>
</Accounts>
<Servers>
  <Server>XA65-W</Server>
</Servers>
<iconFileName>CompleteFarm-icons\calculator.txt</iconFileName>
</Application>
<Application Name="Internet Explorer">

```

Select all the text from **<Application name="Calculator">** to **</Application>**.

You will have to scroll down to complete the selection.

17.

```

<OtherName>IT_Support</OtherName>
<SearchPath>CN=IT_Support,OU=IT_Support,OU=Acme_Users,DC=training,DC=lab</SearchPath>
</Account>
<Account>
<AccountAuthority>NTDomain/TRAINING</AccountAuthority>
<AccountDisplayName>TRAINING\Domain_Admins</AccountDisplayName>
<AccountId>0x2/NT/TRAINING/S-1-5-21-3042957511-2888033547-949915721-512</AccountId>
<AccountName>Domain_Admins</AccountName>
<AccountType>Group</AccountType>
<OtherName>Domain_Admins</OtherName>
<SearchPath>CN=Domain_Admins,CN=Users,DC=training,DC=lab</SearchPath>
</Account>
</Accounts>
<Servers>
<Server>XA65-w</Server>
</Servers>
<IconFileName>CompleteFarm-icons\XenApp_Desktop.txt</IconFileName>
</Application>
<Application Name="Internet Explorer">
<ApplicationType>ServerInstalled</ApplicationType>
<DisplayName>Internet_Explorer</DisplayName>
<FolderPath>Applications\Employee_Tools</FolderPath>
<BrowserName>Internet_Explorer</BrowserName>
<Description />
<Enabled>true</Enabled>
<HideWhenDisabled>false</HideWhenDisabled>
<LoadBalancingApplicationCheckEnabled>true</LoadBalancingApplicationCheckEnabled>
<CommandLineExecutable>"C:\Program Files\Internet Explorer\iexplore.exe"</CommandLineExecutable>
<WorkingDirectory>C:\Program Files\Internet Explorer</WorkingDirectory>
<PreLaunch>false</PreLaunch>
<AnonymousConnectionsAllowed>false</AnonymousConnectionsAllowed>
<ClientFolder>Employee_Tools</ClientFolder>
<AddToClientStartMenu>false</AddToClientStartMenu>
<StartMenuFolder />
<AddToClientDesktop>false</AddToClientDesktop>
<ConnectionsThroughAccessGatewayAllowed>true</ConnectionsThroughAccessGatewayAllowed>
<AccessSessionConditionsEnabled>false</AccessSessionConditionsEnabled>
<OtherConnectionsAllowed>true</OtherConnectionsAllowed>
<InstanceLimit>-1</InstanceLimit>

```

Press the Backspace (Delete on Mac) key. Verify that there is now a blank line and no other text between </Application> and <Application Name="Internet Explorer">

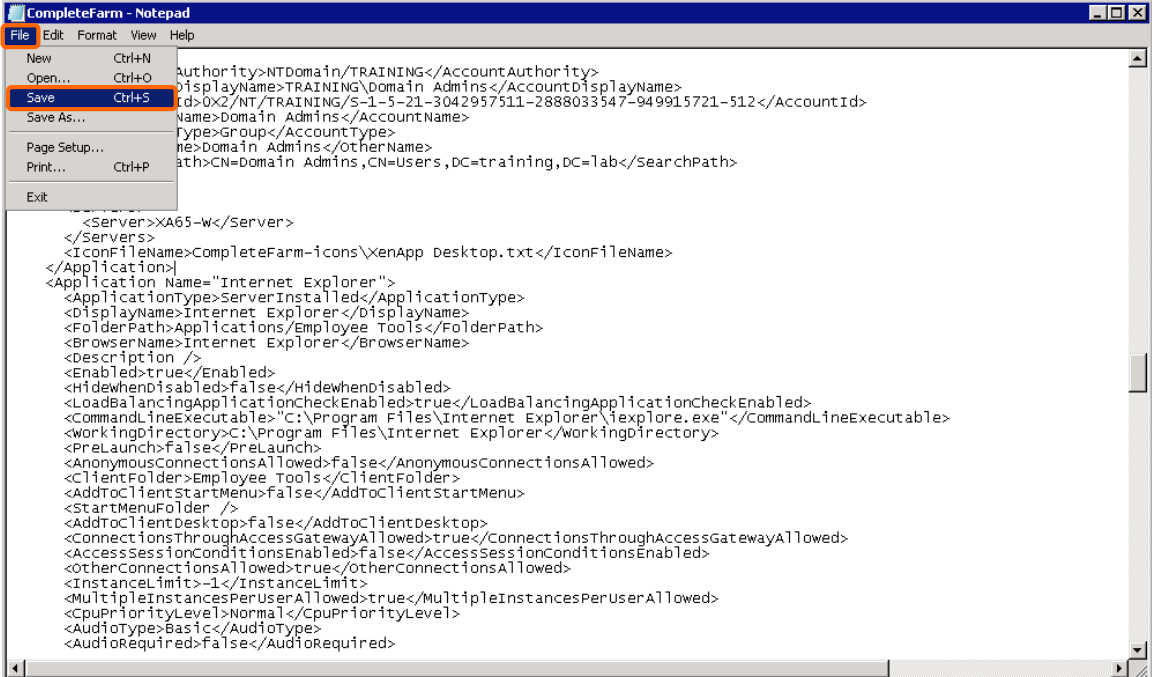
18.

```

<Account>
<AccountAuthority>NTDomain/TRAINING</AccountAuthority>
<AccountDisplayName>TRAINING\Domain_Admins</AccountDisplayName>
<AccountId>0x2/NT/TRAINING/S-1-5-21-3042957511-2888033547-949915721-512</AccountId>
<AccountName>Domain_Admins</AccountName>
<AccountType>Group</AccountType>
<OtherName>Domain_Admins</OtherName>
<SearchPath>CN=Domain_Admins,CN=Users,DC=training,DC=lab</SearchPath>
</Account>
</Accounts>
<Servers>
<Server>XA65-w</Server>
</Servers>
<IconFileName>CompleteFarm-icons\XenApp_Desktop.txt</IconFileName>
</Application>
<Application Name="Internet Explorer">
<ApplicationType>ServerInstalled</ApplicationType>
<DisplayName>Internet_Explorer</DisplayName>
<FolderPath>Applications\Employee_Tools</FolderPath>
<BrowserName>Internet_Explorer</BrowserName>
<Description />
<Enabled>true</Enabled>
<HideWhenDisabled>false</HideWhenDisabled>
<LoadBalancingApplicationCheckEnabled>true</LoadBalancingApplicationCheckEnabled>
<CommandLineExecutable>"C:\Program Files\Internet Explorer\iexplore.exe"</CommandLineExecutable>
<WorkingDirectory>C:\Program Files\Internet Explorer</WorkingDirectory>
<PreLaunch>false</PreLaunch>
<AnonymousConnectionsAllowed>false</AnonymousConnectionsAllowed>
<ClientFolder>Employee_Tools</ClientFolder>
<AddToClientStartMenu>false</AddToClientStartMenu>
<StartMenuFolder />
<AddToClientDesktop>false</AddToClientDesktop>
<ConnectionsThroughAccessGatewayAllowed>true</ConnectionsThroughAccessGatewayAllowed>
<AccessSessionConditionsEnabled>false</AccessSessionConditionsEnabled>
<OtherConnectionsAllowed>true</OtherConnectionsAllowed>
<InstanceLimit>-1</InstanceLimit>
<MultipleInstancesPerUserAllowed>true</MultipleInstancesPerUserAllowed>
<CpuPriorityLevel>Normal</CpuPriorityLevel>
<AudioType>Basic</AudioType>
<AudioRequired>false</AudioRequired>

```

Press the Backspace (Delete on Mac) key until the blank line is deleted.

19.	 <p>Click File and the select Save.</p>
20.	Click the X at the upper-right of the window to close Notepad.
21.	Click the X at the upper-right to close the XA65-C Remote Desktop Connection and then click OK .

Exercise Summary

You have created a backup of CompleteFarm.xml and removed the Calculator application from the file so that it will not be imported into XenApp 7.6.

Exercise 3: Importing Data to XenApp 7.6 Site

Overview



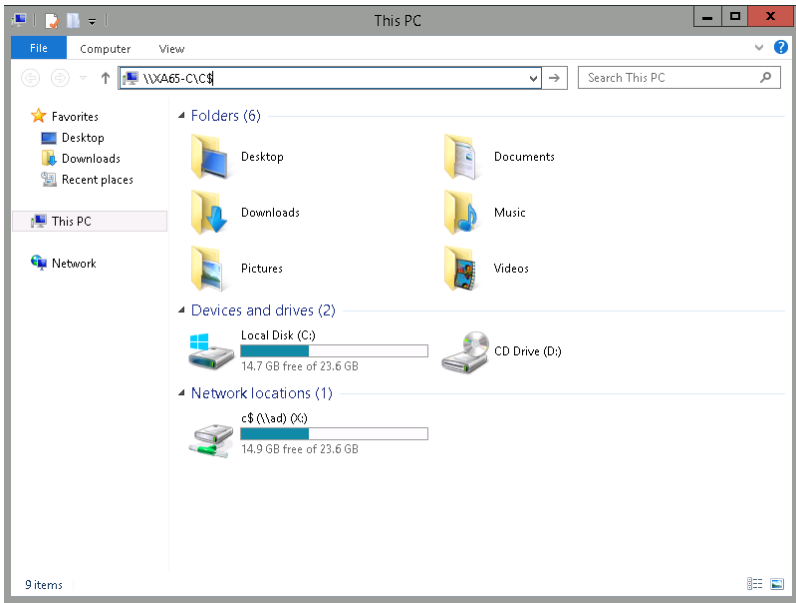
The next upgrade step is to import the data from the previous step into the XenApp 7.6 controller, DC1.

In this exercise you will:

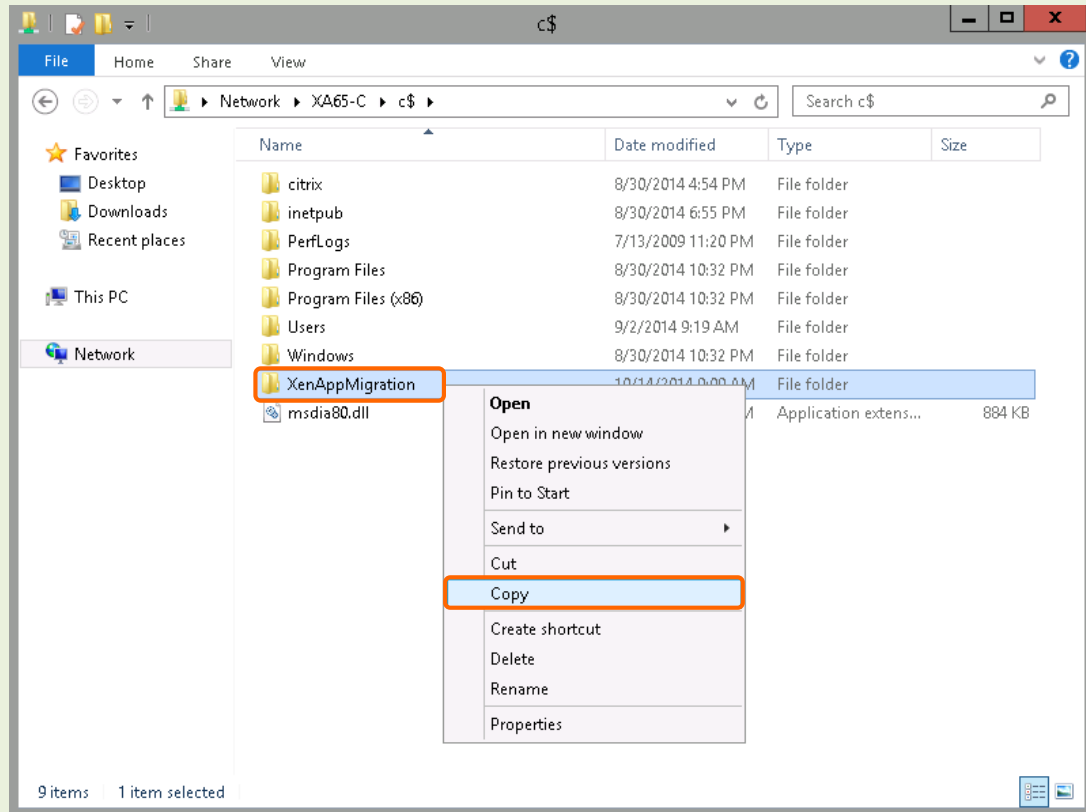
- Copy the scripts locally and setup PowerShell for the import
- Preview the complete import to verify the import is valid
- Import the XenApp 6.5 farm data for the Accounting Tools and IT Tools folders
- Import XenApp 6.5 polices to the XenApp 7.6 controller.

Step by step guidance

Estimated time to complete this exercise: 15 minutes.

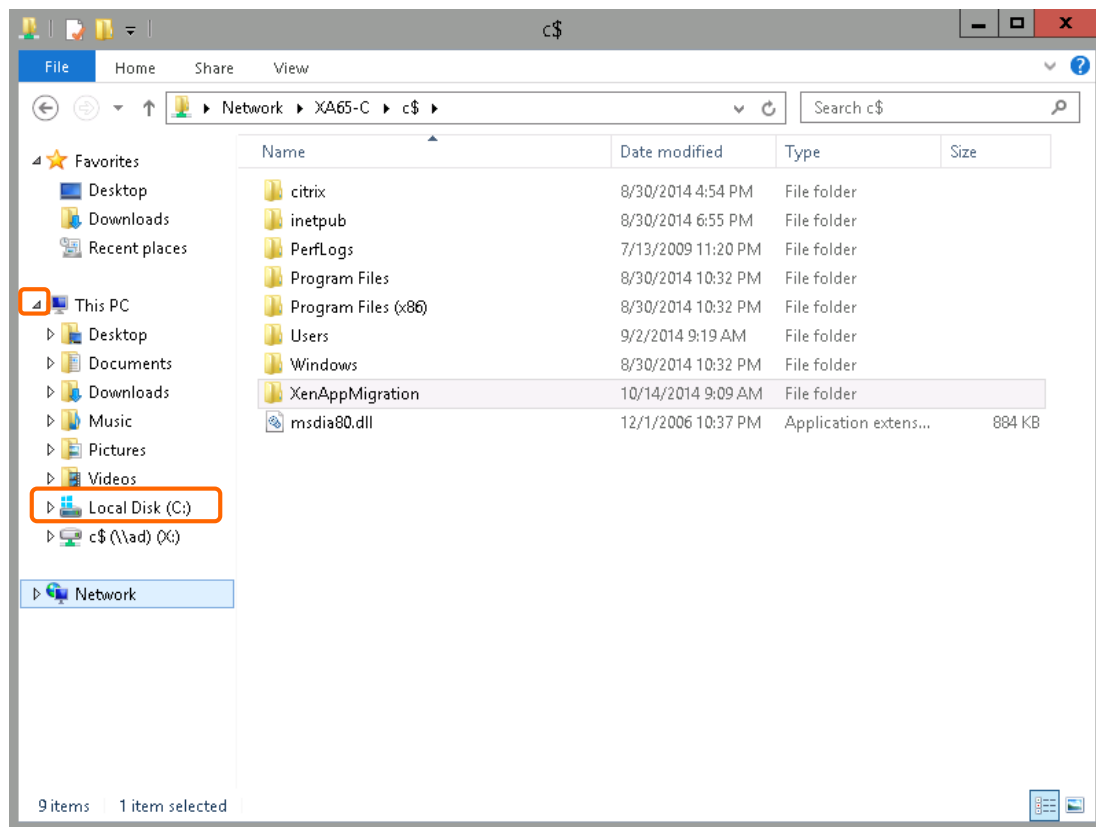
Step	Action
1.	<p>On the Student Desktop double-click the DC1 shortcut.</p> 
2.	 <p>On the DC1 desktop taskbar, launch File Explorer.</p>
3.	 <p>Enter the following in the File Explorer Address bar:</p> <input type="text" value="\\XA65-C\C\$"/> <p>Press the Enter key.</p>

4.



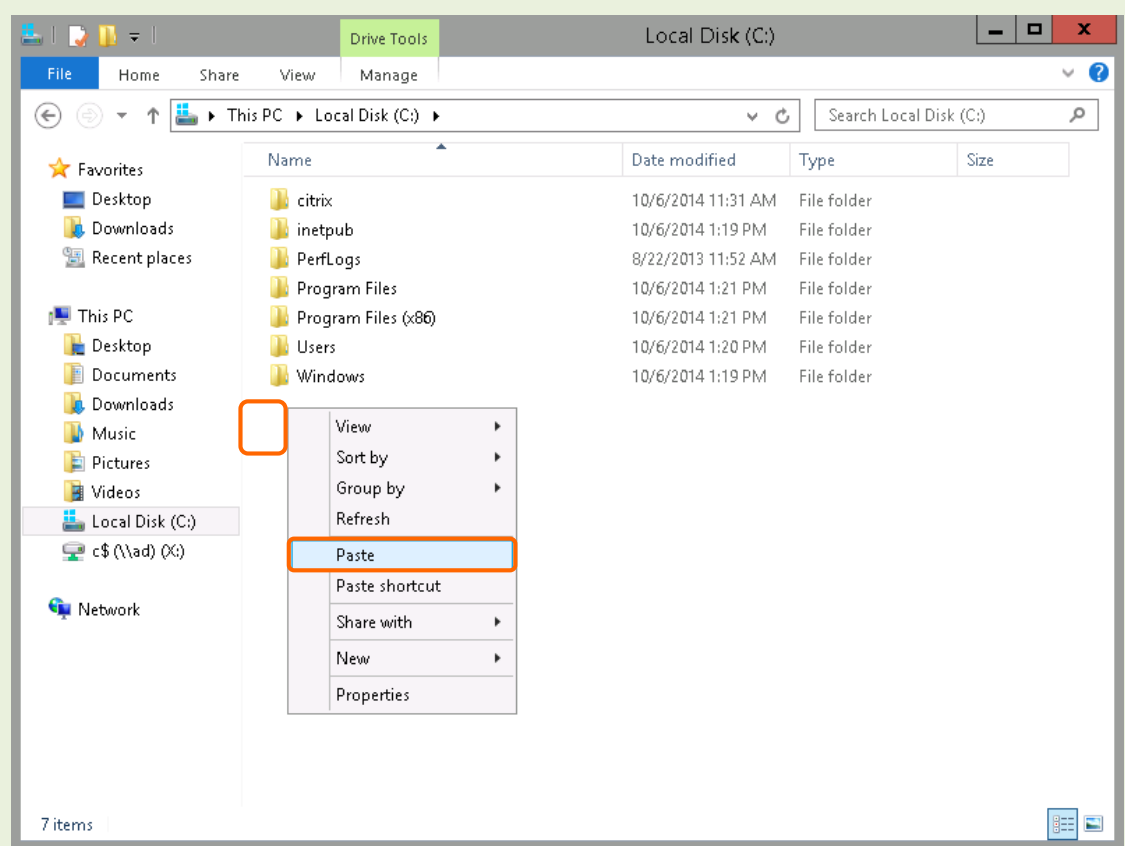
Right-click the **XenAppMigration** folder and click **Copy**.

5.



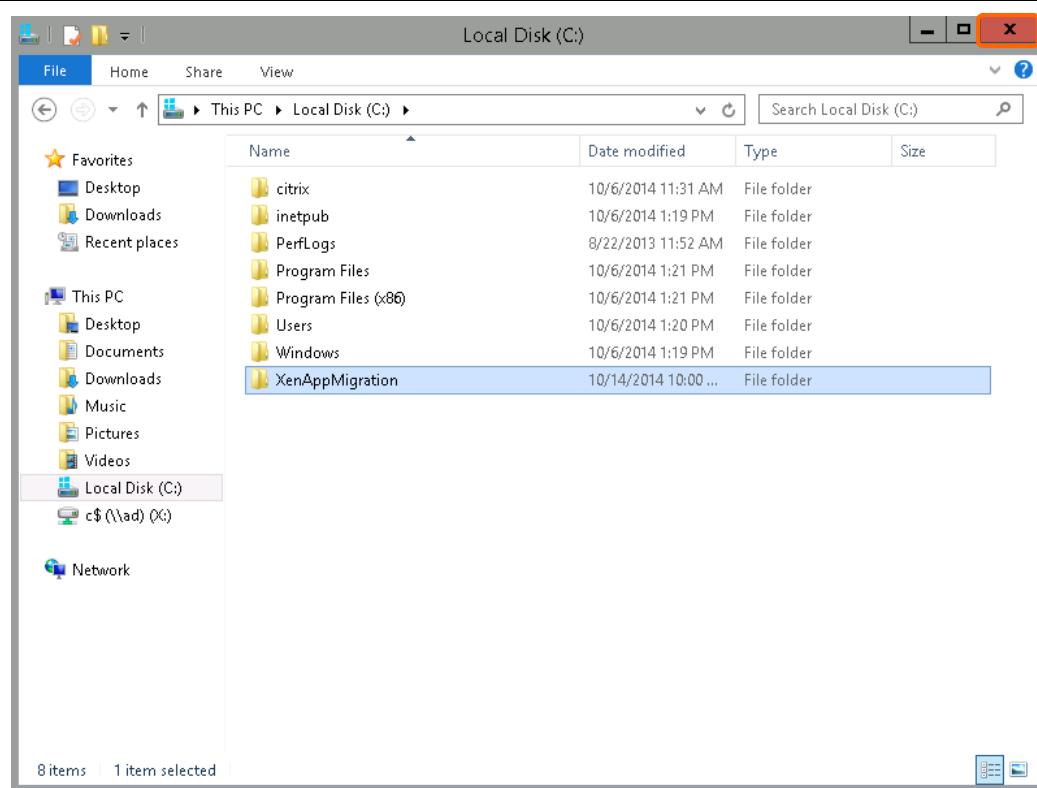
Click the **arrow** next to This PC to expand and then select **Local Disk (C:)**.

6.




Right-click in the **empty** area and select **Paste**.

7.



Verify the XenAppMigration appears and then click the **X** at the upper-right to close File Explorer.

8.	 <p>On the DC1 desktop taskbar, launch Windows PowerShell.</p>
9.	<p>Enter the following command:</p> <pre>Set-ExecutionPolicy RemoteSigned</pre> <p>Type y <Enter> to the policy change question.</p> <pre>PS C:\Users\administrator.TRAINING> Set-ExecutionPolicy RemoteSigned Execution Policy Change The execution policy helps protect you from scripts that you do not trust. Changing the execution policy might expose you to the security risks described in the about_Execution_Policies help topic at http://go.microsoft.com/fwlink/?LinkID=135170. Do you want to change the execution policy? [Y] Yes [N] No [S] Suspend [?] Help (default is "Y"): Y PS C:\Users\administrator.TRAINING> _</pre>
10.	<p>Change to the copied over XenAppMigration work directory.</p> <p>Enter the following command:</p> <pre>cd c:\XenAppMigration</pre> <pre>PS C:\Users\administrator.TRAINING> cd c:\XenAppMigration PS C:\XenAppMigration> _</pre>
11.	<p>Import PowerShell modules required for the migration.</p> <p>Enter the following commands:</p> <pre>Import-Module .\ImportPolicy.psd1 Import-Module .\ImportXAFarm.psd1</pre> <pre>PS C:\XenAppMigration> Import-Module .\ImportPolicy.psd1 PS C:\XenAppMigration> Import-Module .\ImportXAFarm.psd1 PS C:\XenAppMigration> _</pre>

12. To validate the XML files before importing execute the following commands:

```
Import-XAFarm -XmlInputFile ".\CompleteFarm.XML" -LogFile  
".\CompleteFarm.log" -Preview
```

```
PS C:\XenAppMigration> Import-XAFarm -XmlInputFile ".\CompleteFarm.XML" -LogFile ".\CompleteFarm.log" -Preview  
XenApp 6.5 to XenApp/XenDesktop 7.6 Migration Tool Version 20140918-1258  
Loading Citrix Broker Snap-in  
Loading Citrix Common Commands Snap-in  
Reading XML file  
Initializing delivery group for applications  
Importing application "MS Word"  
WARNING: Application "Sales Tools\MS Word" exists, skipped  
Importing application "MS PowerPoint"  
WARNING: Application "Sales Tools\MS PowerPoint" exists, skipped  
Importing application "Command Prompt"  
Creating new application - "IT Support Tools\Command Prompt"  
Importing application "MS Excel"  
Creating new application - "Accounting Tools\MS Excel"  
Importing application "XenApp Desktop"  
WARNING: Unsupported application type ServerDesktop, application "IT Support Tools\XenApp Desktop" skipped  
Importing application "Internet Explorer"  
Creating new application - "Employee Tools\Internet Explorer"  
Importing application "Notepad"  
Creating new application - "Anonymous Apps\Notepad"  
4 applications imported  
3 applications ignored  
  
Farm import completed  
Log has been saved to .\CompleteFarm.log  
PS C:\XenAppMigration> _
```

```
Import-Policy -XmlInputFile ".\CompletePolicies.XML" -LogFile  
".\CompletePolicies.log" -Preview
```

```
PS C:\XenAppMigration> Import-Policy -XmlInputFile ".\CompletePolicies.XML" -LogFile ".\CompletePolicies.log" -Preview  
XenApp 6.5 to XenApp/XenDesktop 7.6 Migration Tool Version 20140918-1258  
Loading Citrix Group Policy Provider Snap-in  
Mount Group Policy GPO  
Turn off auto write back  
Importing user policies  
WARNING: Not importing policy "Unfiltered" because it has no valid settings  
Importing User policy "Baseline"  
Creating new User policy "Baseline"  
WARNING: Invalid data in filter "UserFilter0", ignored  
Importing computer policies  
WARNING: Not importing policy "Unfiltered" because it has no valid settings  
Total number of user policies : 2  
Total number of computer policies : 1  
Number of policies ignored: 2  
Number of policies imported: 1  
  
Policy import completed  
Log has been saved to .\CompletePolicies.log  
PS C:\XenAppMigration> _
```

These commands show you the results of the import process without actually importing any data. Some Applications will be skipped because they already exist in XenApp 7.6 or are Server Desktops, which are no longer supported. Some policies and filters will be skipped because they are invalid or empty.

13. Now you can perform the actual imports of the XenApp 6.5 Farm data. We will start by importing only the Accounting Tools folder applications into a delivery group named Accounting.

```
PS C:\XenAppMigration> Import-XAFarm -XmlInputFile ".\CompleteFarm.XML" -LogFile ".\AccountingFarm.log" -DeliveryGroupName "Accounting" -MatchFolder "Applications/Accounting Tools"
XenApp 6.5 to XenApp/XenDesktop 7.6 Migration Tool Version 20140918-1258
Loading Citrix Broker Snap-in
Loading Citrix Common Commands Snap-in
Reading XML file
Initializing delivery group for applications
Importing application "MS Word"
WARNING: Application "Sales Tools\MS Word" exists, skipped
Importing application "MS PowerPoint"
WARNING: Application "Sales Tools\MS PowerPoint" exists, skipped
Importing application "Command Prompt"
INFO: "Applications\IT Support Tools" does not match "Applications/Accounting Tools", skipped
Importing application "MS Excel"
Creating new application - "Accounting Tools\MS Excel"
Importing application "XenApp Desktop"
WARNING: Unsupported application type ServerDesktop, application "IT Support Tools\XenApp Desktop" skipped
Importing application "Internet Explorer"
INFO: "Applications\Employee Tools" does not match "Applications/Accounting Tools", skipped
Importing application "Notepad"
INFO: "Applications\Anonymous Apps" does not match "Applications/Accounting Tools", skipped
1 applications imported
6 applications ignored

Farm import completed
Log has been saved to .\AccountingFarm.log
PS C:\XenAppMigration>
```

Enter the following command:

```
Import-XAFarm -XmlInputFile ".\CompleteFarm.XML" -LogFile ".\AccountingFarm.log" -DeliveryGroupName "Accounting" -MatchFolder "Applications/Accounting Tools"
```

Press the Enter key.

Notice that only one application was imported and six applications were skipped.

14. Next, import the IT Support Tools folder applications into a delivery group named IT.

```
PS C:\XenAppMigration> Import-XAFarm -XmlInputFile ".\CompleteFarm.XML" -LogFile ".\ITFarm.log" -DeliveryGroupName "IT"
-MatchFolder "Applications/IT Support Tools"
XenApp 6.5 to XenApp/XenDesktop 7.6 Migration Tool Version 20140918-1258
Loading Citrix Broker Snap-in
Loading Citrix Common Commands Snap-in
Reading XML file
Initializing delivery group for applications
Importing application "MS Word"
WARNING: Application "Sales Tools\MS Word" exists, skipped
Importing application "MS PowerPoint"
WARNING: Application "Sales Tools\MS PowerPoint" exists, skipped
Importing application "Command Prompt"
Creating new application - "IT Support Tools\Command Prompt"
Importing application "MS Excel"
WARNING: Application "Accounting Tools\MS Excel" exists, skipped
Importing application "XenApp Desktop"
WARNING: Unsupported application type ServerDesktop, application "IT Support Tools\XenApp Desktop" skipped
Importing application "Internet Explorer"
INFO: "Applications/Employee Tools" does not match "Applications/IT Support Tools", skipped
Importing application "Notepad"
INFO: "Applications/Anonymous Apps" does not match "Applications/IT Support Tools", skipped
1 applications imported
6 applications ignored

Farm import completed
Log has been saved to .\ITFarm.log
PS C:\XenAppMigration>
```

Enter the following command:

```
Import-XAFarm -XmlInputFile ".\CompleteFarm.XML" -LogFile ".\ITFarm.log"
-DeliveryGroupName "IT" -MatchFolder "Applications/IT Support Tools"
```

Press the Enter key.

Notice that only one application was imported and six applications were skipped.



In order to deliver Accounting Tools applications and IT Support Tools applications from the same VDA Machine, they would have to belong to the same Delivery Group. In this exercise, they are separated for demonstration purposes.

15. Finally, import all exported XenApp 6.5 Policies.

```
PS C:\XenAppMigration> Import-Policy -XmlInputFile ".\CompletePolicies.XML" -LogFile ".\CompletePolicies.log"
XenApp 6.5 to XenApp/XenDesktop 7.6 Migration Tool Version 20140918-1258
Loading Citrix Group Policy Provider Snap-in
Mount Group Policy GPO
Turn off auto write back
Importing user policies
WARNING: Not importing policy "Unfiltered" because it has no valid settings
Importing User policy "Baseline"
Creating new User policy "Baseline"
WARNING: Object assignments for "Baseline" imported. Please carefully review the object assignments to ensure the
policy is applied properly
Importing computer policies
WARNING: Not importing policy "Unfiltered" because it has no valid settings
Total number of user policies : 2
Total number of computer policies : 1
Number of policies ignored: 2
Number of policies imported: 1

Policy import completed
Log has been saved to .\CompletePolicies.log
PS C:\XenAppMigration>
```

Enter the following command:

```
Import-Policy -XmlInputFile ".\CompletePolicies.XML" -LogFile
".\CompletePolicies.log"
```

Press the Enter key.

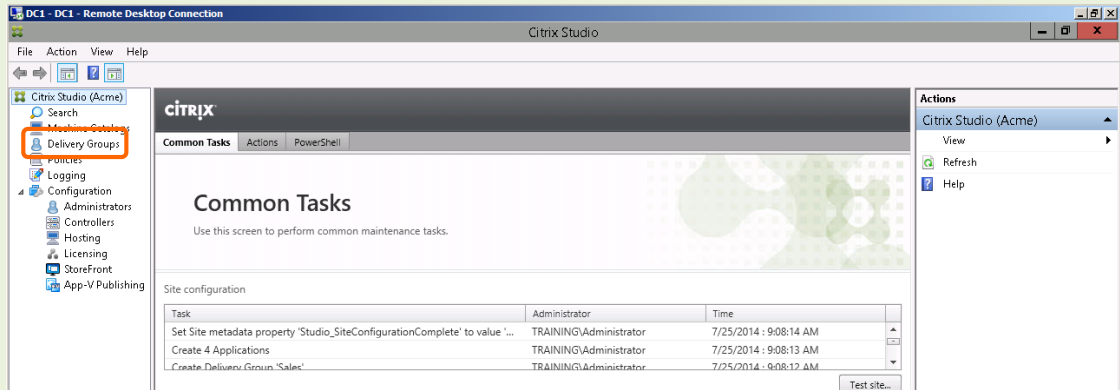
One application was imported and two were ignored.

16. Close the **PowerShell** window using the **X** in the upper-right corner.

17. On the DC1 desktop, double-click the **Citrix Studio** shortcut.

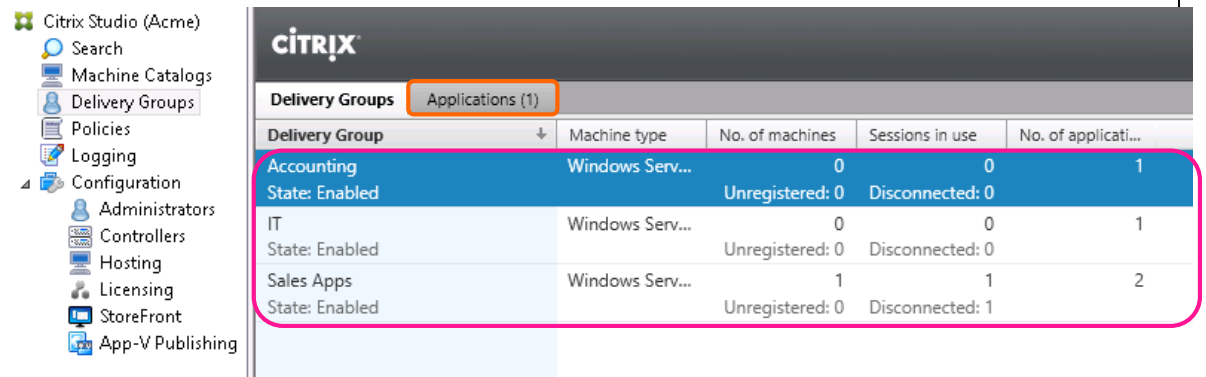


18.



Click **Delivery Groups** on the left.

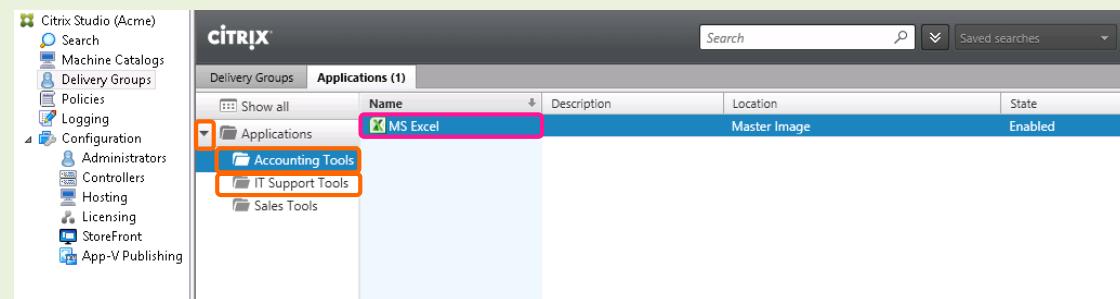
19.



Notice that IT and Accounting Delivery Groups with one application each have been added because of the import.

Click the **Applications** tab.

20.

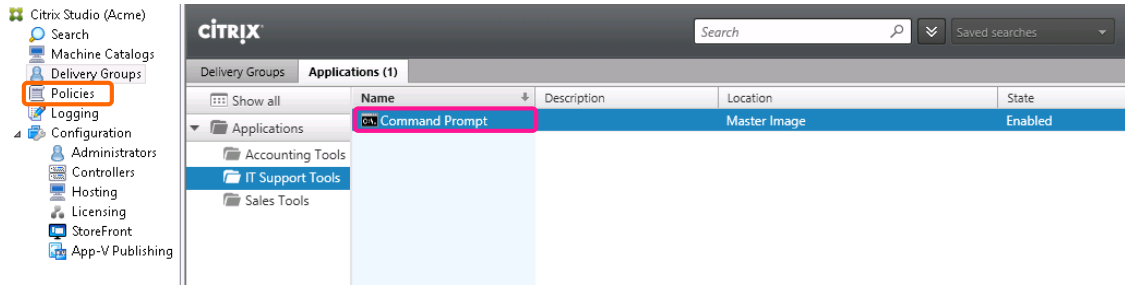


Click the **arrow** to expand the Applications folder and then click **Accounting Tools**.

The MS Excel application has been migrated from the XenApp 6.5 deployment and placed in the same folder (Accounting Tools) that was configured in XenApp 6.5. The correct application icon is also displayed.

Click the **IT Support Tools** folder.

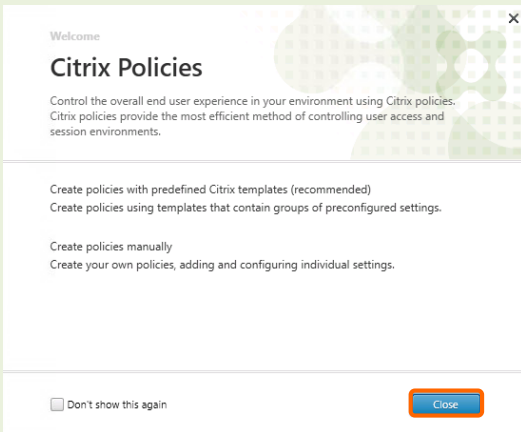
21.



The **Command Prompt** application has been migrated from the XenApp 6.5 deployment and placed in the same folder (IT Support Tools) that was configured in XenApp 6.5. The correct application icon is also displayed.

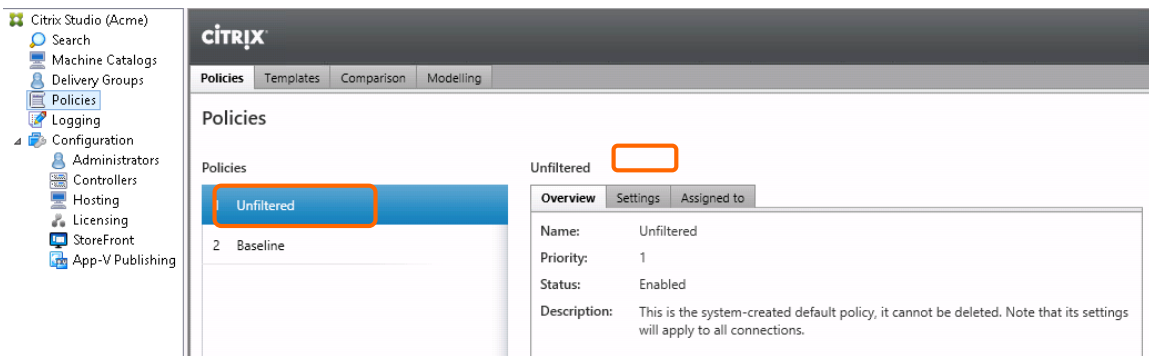
Click the **Policies** on the left.

22.



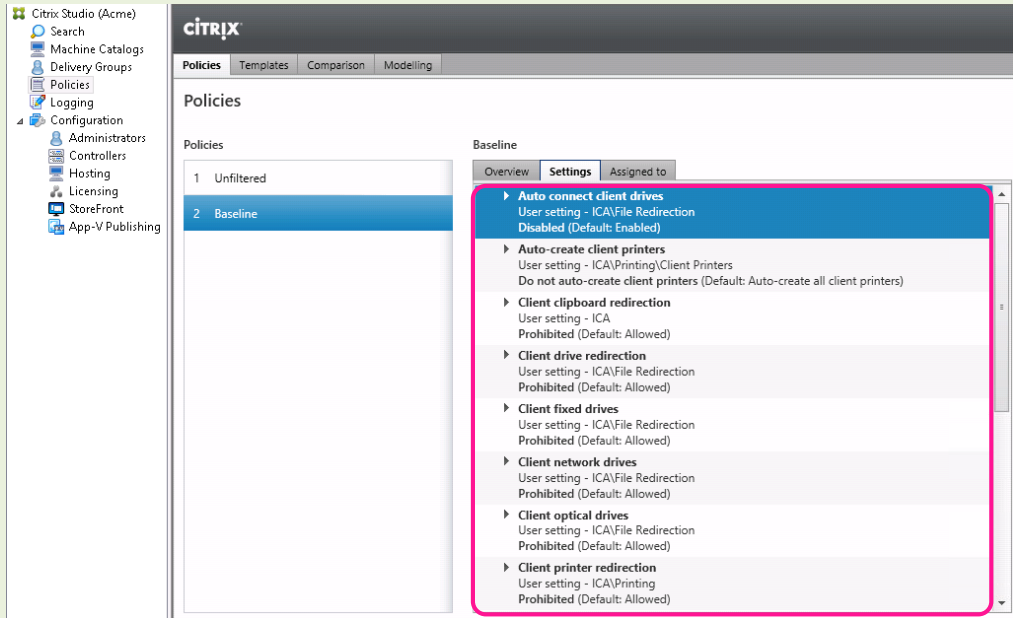
Click **Close**.

23.



Notice the Baseline policy has been transferred to DC1. Click **Baseline** and then click the **Settings** tab.

24.



Review the imported policy settings. Notice that the following policies were not imported due to compatibility:

Client COM Port Redirection

Client LPT Port Redirection

25.

Close the DC1 Remote Desktop Connection by clicking the **X** at the upper-right corner and then clicking **OK**.

Exercise Summary

You have imported the XenApp 6.5 farm data for the Accounting Tools and IT Support Tools folders into appropriate delivery groups and the XenApp 6.5 policies into the XenApp 7.6 Controller.

Module 3

Upgrading Your XenApp Worker

Once settings and policies are imported into XenApp 7.6, the XenApp 6.5 workers must be upgraded in order to deliver applications. The XenApp 7.6 in-place upgrade utility quickly removes XenApp 6.5 software and installs the XenApp 7.6 VDA.

Exercises in this module

Exercise 1: Upgrade the XenApp 6.5 Worker

Exercise 2: Adding Upgraded Machines to XenApp 7.6

Exercise 3: Testing the Imported XenApp Settings

Exercise 1: Upgrade the XenApp 6.5 Worker

Overview

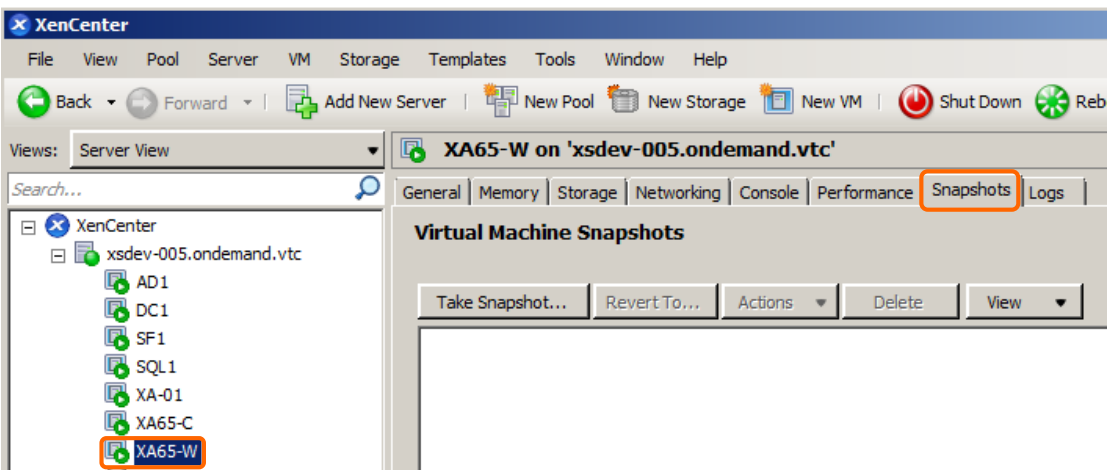
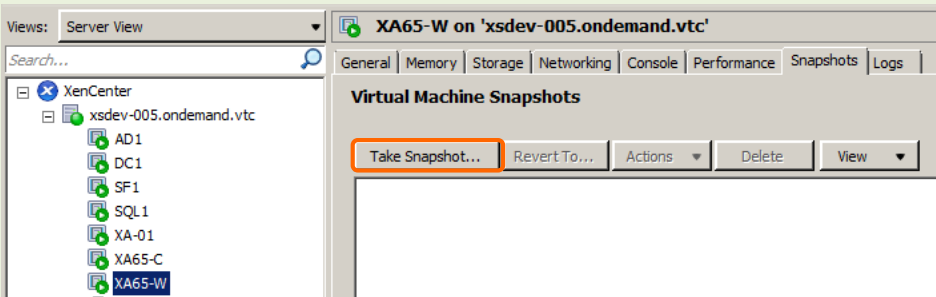
The next step is to upgrade the XenApp 6.5 Worker VM from a XenApp 6.5 Virtual Delivery Agent (VDA) to a XenApp 7.6 VDA.

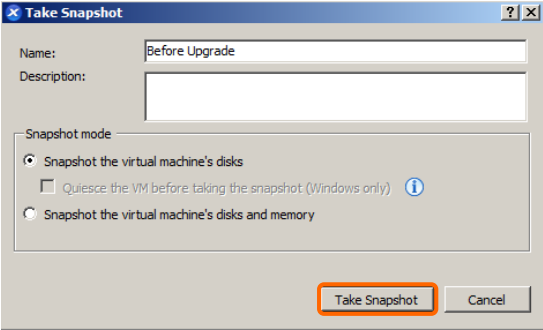
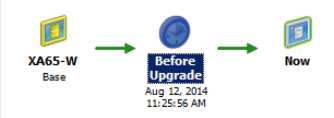
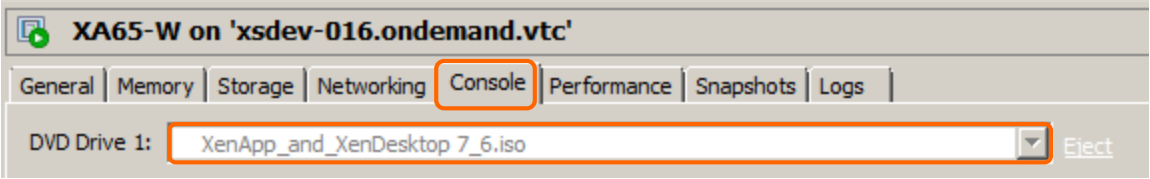


In this exercise you will:

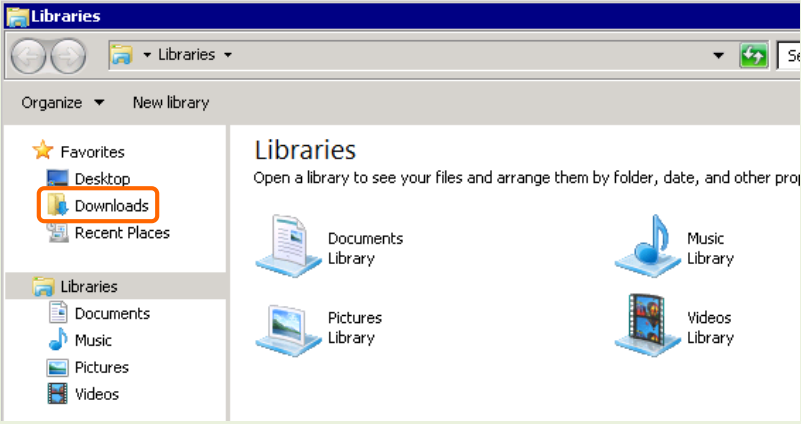
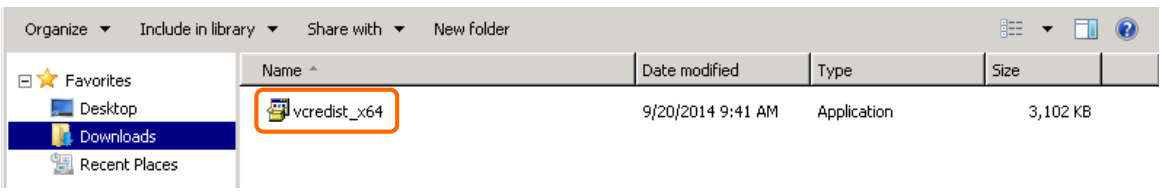
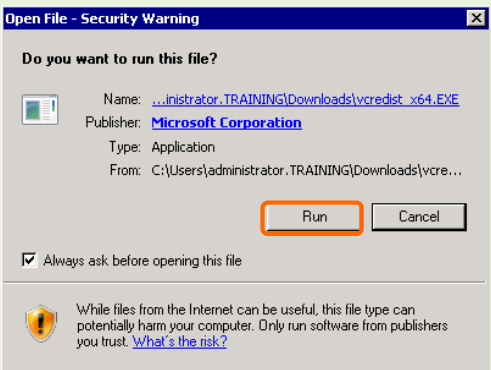
- Perform a snapshot of the XenApp 6.5 Worker
- Run the XenApp upgrade wizard to uninstall the XenApp 6.5 VDA and install the XenApp 7.6 VDA along with all the pre-requisites.

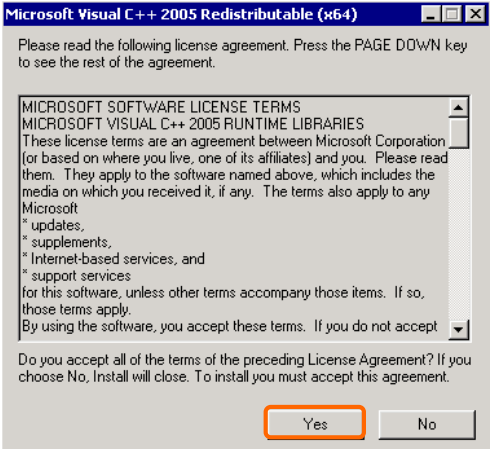
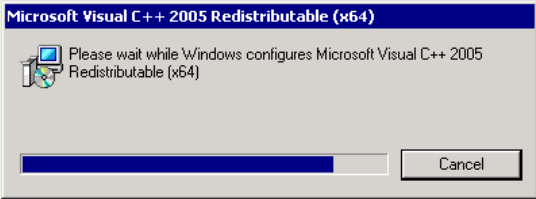
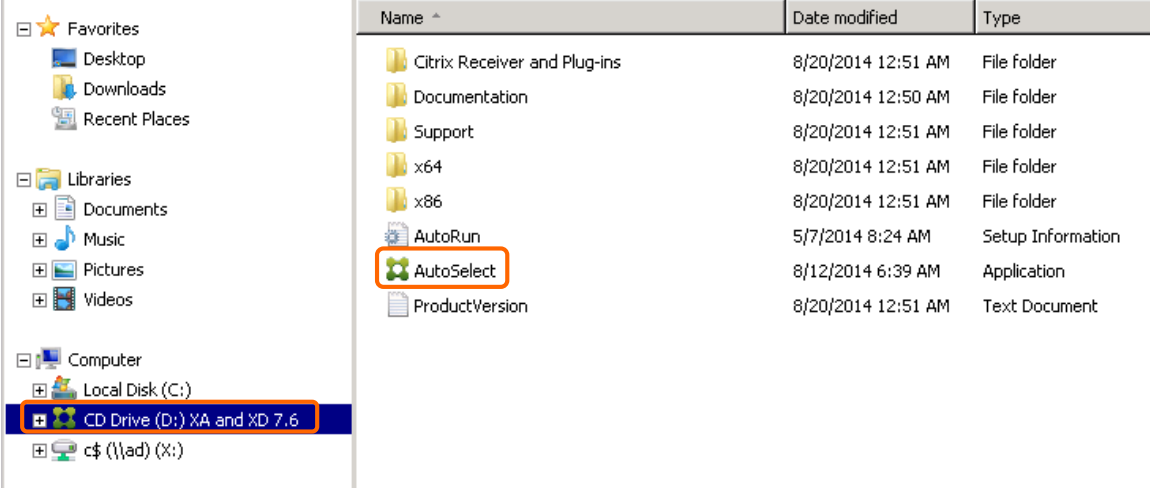
Step by step guidance

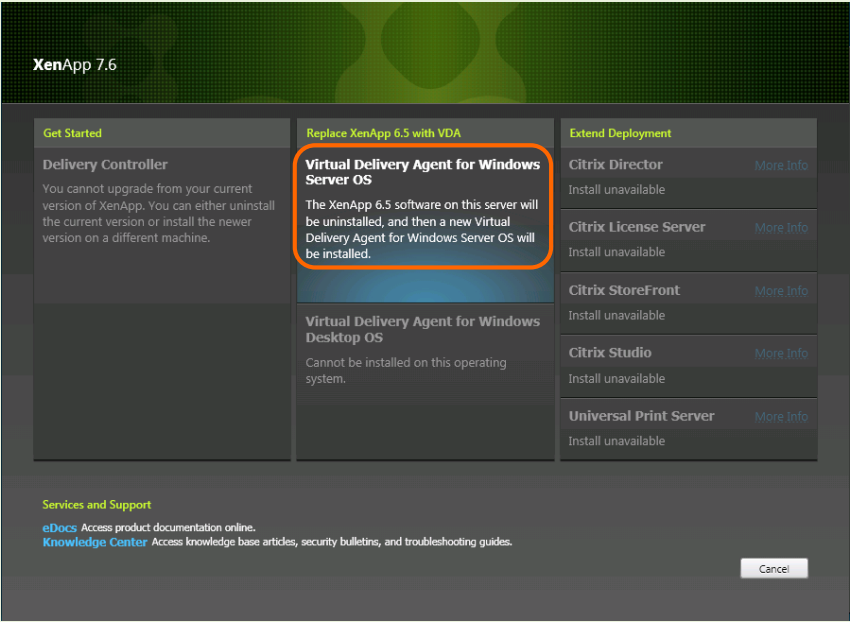
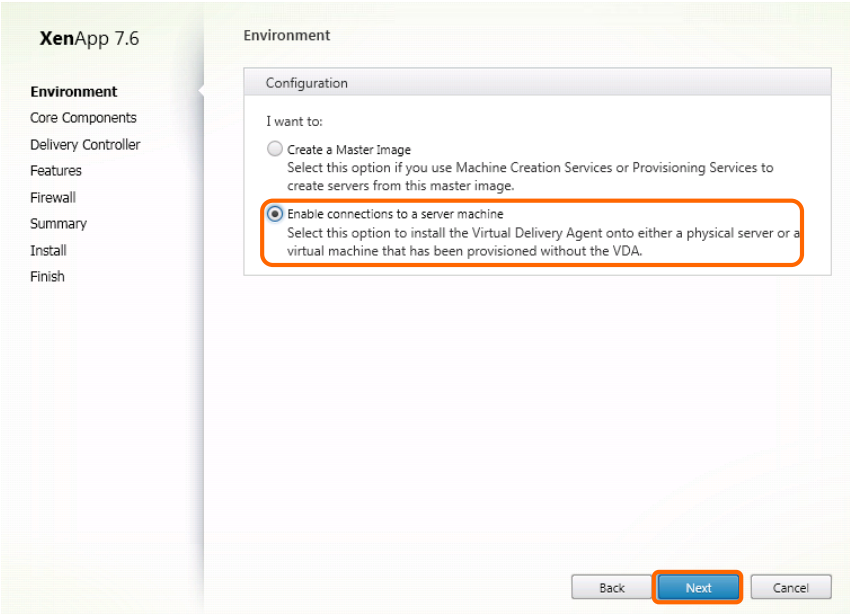
Estimated time to complete this exercise: 25 minutes.

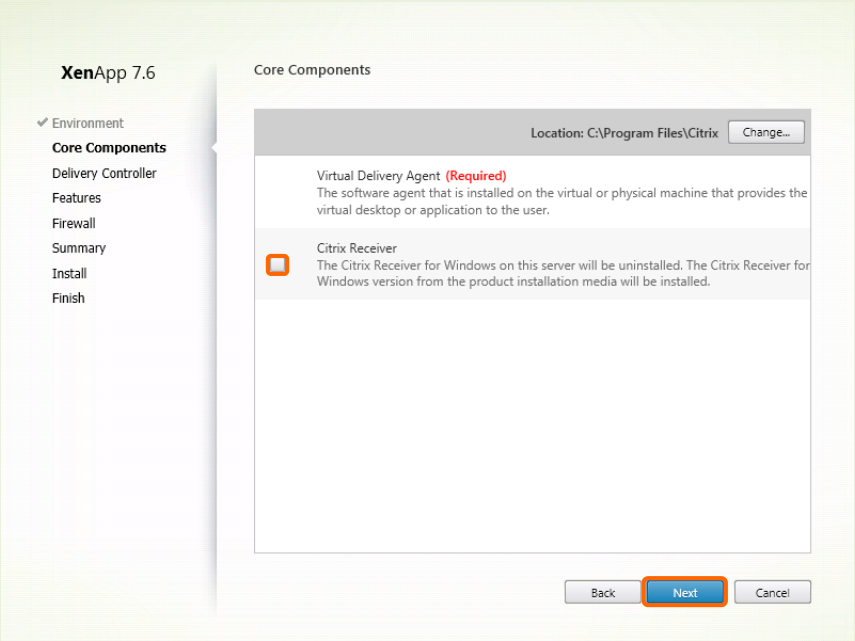
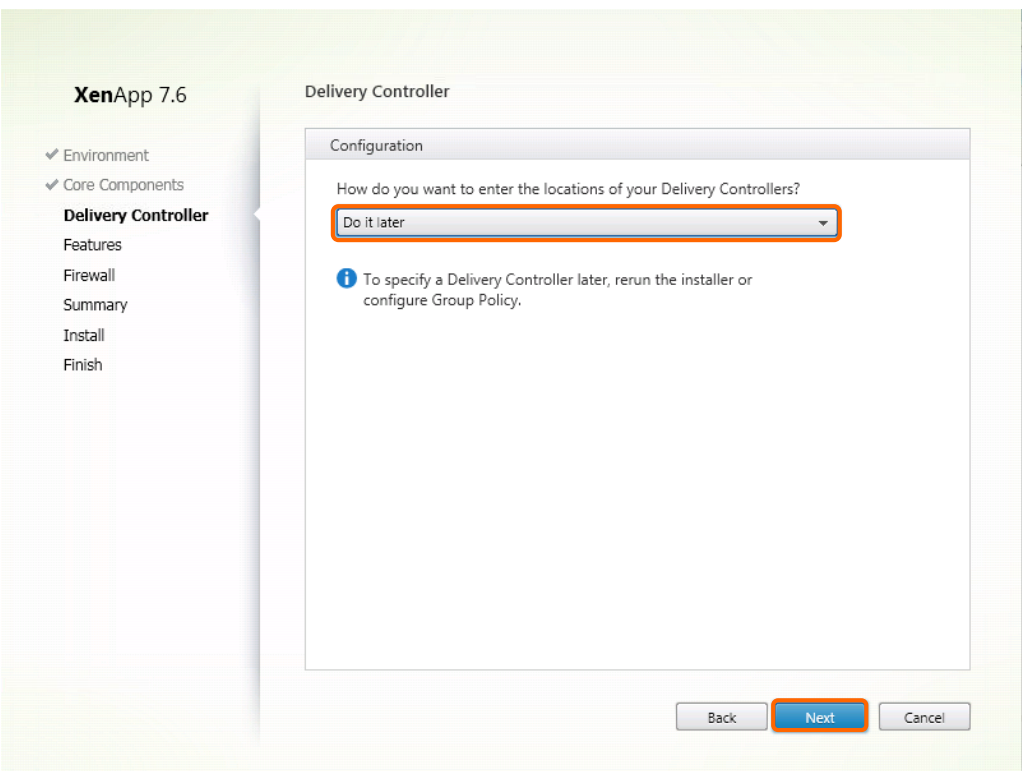
Step	Action
1.	 <p>Using XenCenter, select the XA65-W node and the Snapshots tab</p>
2.	 <p>Click Take Snapshot...</p>

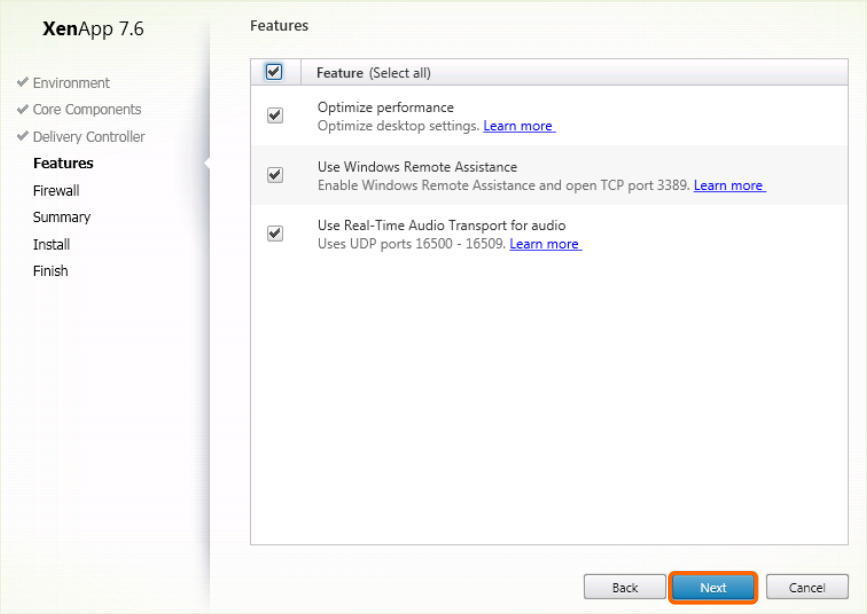
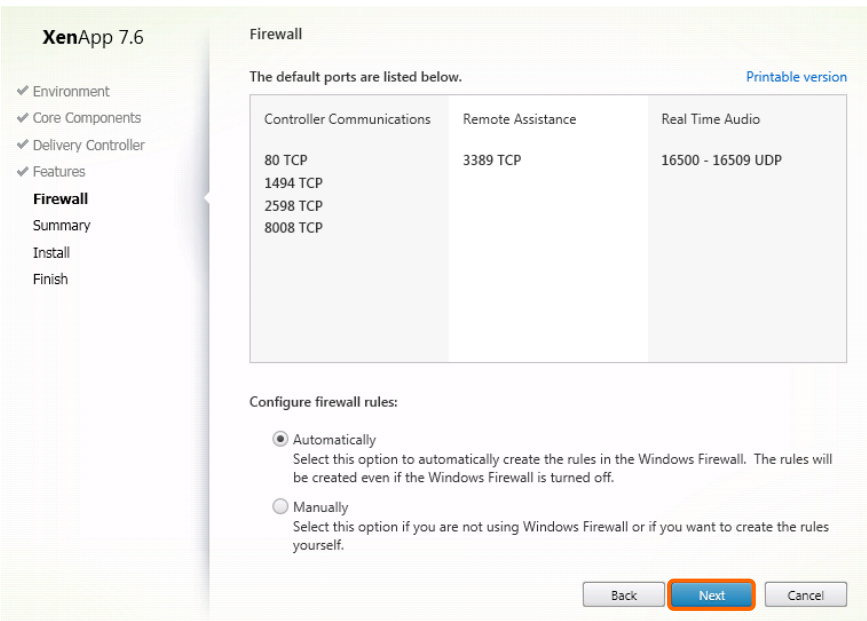
Step	Action		
3.	 <p>Enter the following:</p> <table border="1" data-bbox="305 562 966 596"> <tr> <td>Name</td> <td>Before Upgrade</td> </tr> </table> <p>Click Take Snapshot.</p>	Name	Before Upgrade
Name	Before Upgrade		
4.	 <p>The Snapshot is taken, allowing you to return this VM to this state at any time.</p>		
5.	 <p>Click the Console tab on the XA65-W node</p> <p>Select XenApp_and_XenDesktop_7_6.iso using the DVD Drive 1 drop down menu.</p>		
6.	<p>On the Student Desktop double-click the XA65-W shortcut</p> 		
7.	<p>A security issue has been identified leading to a vulnerability in MFC applications that are built with Visual Studio 2005 and ship the Microsoft Visual C++ 2005 Service Pack 1 Redistributable Package.</p> <p>To resolve this problem prior to upgrading the VDA, you must install a Microsoft Security update referenced here: http://www.microsoft.com/en-us/download/details.aspx?id=26347</p>  <p>On the XA65-W desktop taskbar, launch File Explorer.</p>		

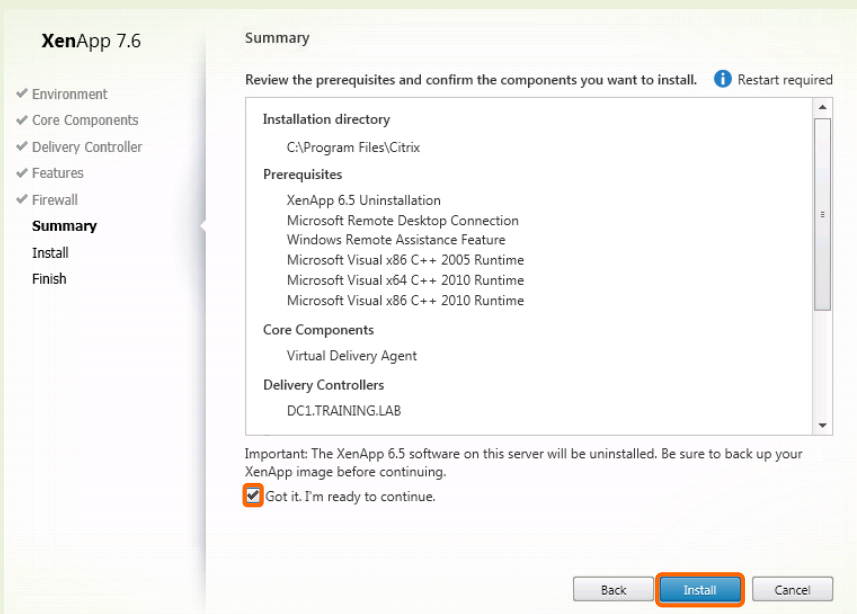
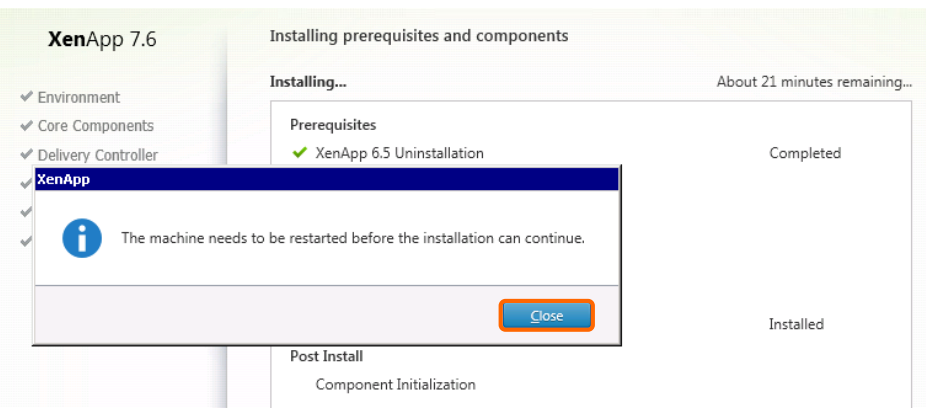

Step	Action
8.	 <p>Click the Downloads node in the Favorites section.</p>
9.	 <p>The appropriate update file has been downloaded for you. Double-click the vcredist_x64 file to execute the update.</p>
10.	 <p>Confirm you want to run this file by clicking Run.</p>

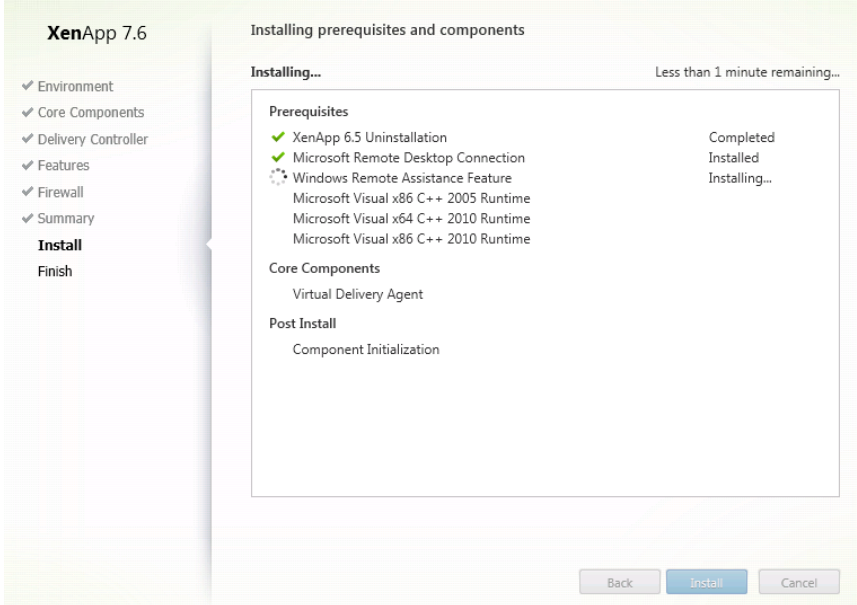
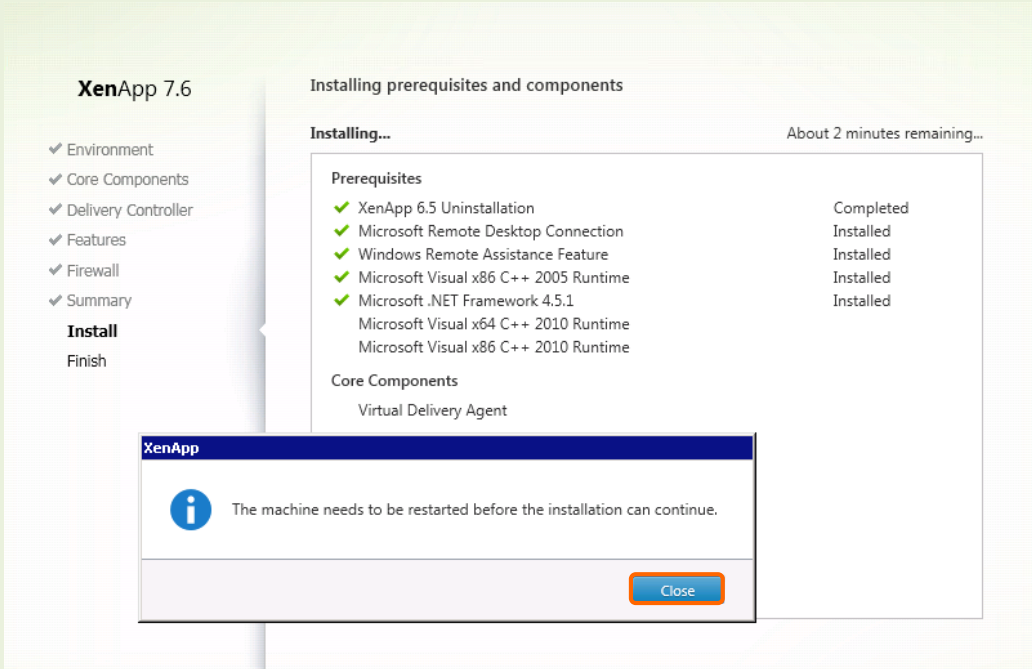

Step	Action																											
11.	 <p>Microsoft Visual C++ 2005 Redistributable (x64)</p> <p>Please read the following license agreement. Press the PAGE DOWN key to see the rest of the agreement.</p> <p>MICROSOFT SOFTWARE LICENSE TERMS MICROSOFT VISUAL C++ 2005 RUNTIME LIBRARIES</p> <p>These license terms are an agreement between Microsoft Corporation (or based on where you live, one of its affiliates) and you. Please read them. They apply to the software named above, which includes the media on which you received it, if any. The terms also apply to any Microsoft</p> <ul style="list-style-type: none"> * updates, * supplements, * Internet-based services, and * support services <p>for this software, unless other terms accompany those items. If so, those terms apply.</p> <p>By using the software, you accept these terms. If you do not accept</p> <p>Do you accept all of the terms of the preceding License Agreement? If you choose No, Install will close. To install you must accept this agreement.</p> <p>Yes No</p> <p>Confirm you wish to install the update by clicking Yes.</p>																											
12.	 <p>Microsoft Visual C++ 2005 Redistributable (x64)</p> <p>Please wait while Windows configures Microsoft Visual C++ 2005 Redistributable (x64)</p> <p>Cancel</p> <p>The update will complete with no closing information box shown. No re-boot is necessary. You can now use the Citrix VDA upgrade tool provided on the XenApp 7.6 DVD.</p>																											
13.	 <table border="1"> <thead> <tr> <th>Name ^</th> <th>Date modified</th> <th>Type</th> </tr> </thead> <tbody> <tr> <td>Citrix Receiver and Plug-ins</td> <td>8/20/2014 12:51 AM</td> <td>File folder</td> </tr> <tr> <td>Documentation</td> <td>8/20/2014 12:50 AM</td> <td>File folder</td> </tr> <tr> <td>Support</td> <td>8/20/2014 12:51 AM</td> <td>File folder</td> </tr> <tr> <td>x64</td> <td>8/20/2014 12:51 AM</td> <td>File folder</td> </tr> <tr> <td>x86</td> <td>8/20/2014 12:51 AM</td> <td>File folder</td> </tr> <tr> <td>AutoRun</td> <td>5/7/2014 8:24 AM</td> <td>Setup Information</td> </tr> <tr> <td>AutoSelect</td> <td>8/12/2014 6:39 AM</td> <td>Application</td> </tr> <tr> <td>ProductVersion</td> <td>8/20/2014 12:51 AM</td> <td>Text Document</td> </tr> </tbody> </table> <p>Click on CD Drive (D:) node on the left, and then double-click the AutoSelect file.</p>	Name ^	Date modified	Type	Citrix Receiver and Plug-ins	8/20/2014 12:51 AM	File folder	Documentation	8/20/2014 12:50 AM	File folder	Support	8/20/2014 12:51 AM	File folder	x64	8/20/2014 12:51 AM	File folder	x86	8/20/2014 12:51 AM	File folder	AutoRun	5/7/2014 8:24 AM	Setup Information	AutoSelect	8/12/2014 6:39 AM	Application	ProductVersion	8/20/2014 12:51 AM	Text Document
Name ^	Date modified	Type																										
Citrix Receiver and Plug-ins	8/20/2014 12:51 AM	File folder																										
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AutoSelect	8/12/2014 6:39 AM	Application																										
ProductVersion	8/20/2014 12:51 AM	Text Document																										

Step	Action
14.	 <p>Click Virtual Delivery Agent for Windows Server OS.</p>
15.	 <p>Ensure Enable Connections to a Server Machine is selected and click Next.</p>

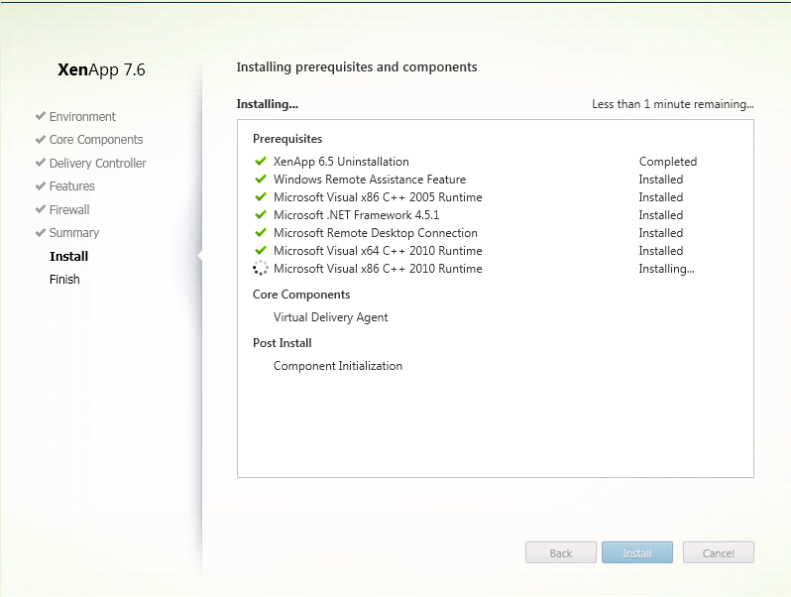
Step	Action
16.	 <p>Deselect Citrix Receiver, is not needed on the server.</p> <p>Click Next.</p>
17.	 <p>The Delivery Controller address is already configured through Group Policy. Select Do it later from the drop down menu and click Next.</p>

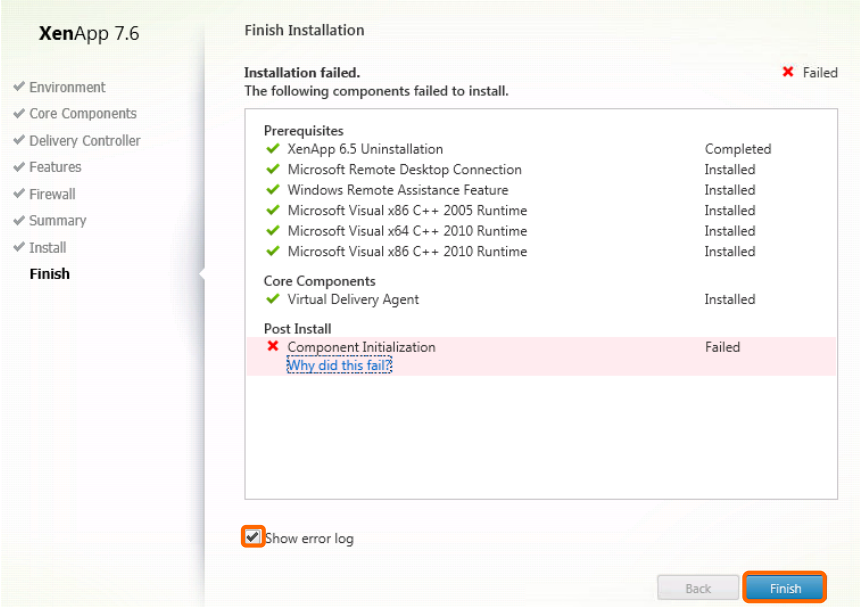
Step	Action						
18.	 <p>XenApp 7.6</p> <ul style="list-style-type: none"> Environment Core Components Delivery Controller Features Firewall Summary Install Finish <p>Features</p> <p>Feature (Select all)</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Optimize performance Optimize desktop settings. Learn more <input checked="" type="checkbox"/> Use Windows Remote Assistance Enable Windows Remote Assistance and open TCP port 3389. Learn more <input checked="" type="checkbox"/> Use Real-Time Audio Transport for audio Uses UDP ports 16500 - 16509. Learn more <p>Back Next Cancel</p> <p>Click Next.</p>						
19.	 <p>XenApp 7.6</p> <ul style="list-style-type: none"> Environment Core Components Delivery Controller Features Firewall Summary Install Finish <p>Firewall</p> <p>The default ports are listed below. Printable version</p> <table border="1"> <thead> <tr> <th>Controller Communications</th> <th>Remote Assistance</th> <th>Real Time Audio</th> </tr> </thead> <tbody> <tr> <td>80 TCP 1494 TCP 2598 TCP 8008 TCP</td> <td>3389 TCP</td> <td>16500 - 16509 UDP</td> </tr> </tbody> </table> <p>Configure firewall rules:</p> <ul style="list-style-type: none"> <input checked="" type="radio"/> Automatically Select this option to automatically create the rules in the Windows Firewall. The rules will be created even if the Windows Firewall is turned off. <input type="radio"/> Manually Select this option if you are not using Windows Firewall or if you want to create the rules yourself. <p>Back Next Cancel</p> <p>Firewall rules will be automatically configured.</p> <p>Click Next.</p>	Controller Communications	Remote Assistance	Real Time Audio	80 TCP 1494 TCP 2598 TCP 8008 TCP	3389 TCP	16500 - 16509 UDP
Controller Communications	Remote Assistance	Real Time Audio					
80 TCP 1494 TCP 2598 TCP 8008 TCP	3389 TCP	16500 - 16509 UDP					

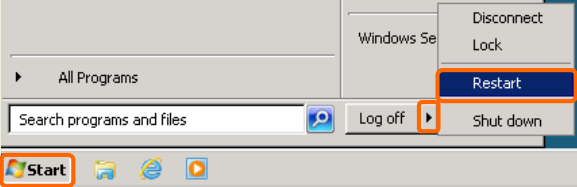
Step	Action
20.	 <p>The screenshot shows the 'Summary' screen for XenApp 7.6 installation. On the left, a navigation pane lists 'Environment', 'Core Components', 'Delivery Controller', 'Features', 'Firewall', 'Summary', 'Install', and 'Finish'. The 'Summary' section is active, displaying a list of prerequisites and core components. The prerequisites include XenApp 6.5 Uninstallation, Microsoft Remote Desktop Connection, Windows Remote Assistance Feature, Microsoft Visual x86 C++ 2005 Runtime, Microsoft Visual x64 C++ 2010 Runtime, and Microsoft Visual x86 C++ 2010 Runtime. The core components are Virtual Delivery Agent and Delivery Controllers (DC1.TRAINING.LAB). An important note states: 'Important: The XenApp 6.5 software on this server will be uninstalled. Be sure to back up your XenApp image before continuing.' Below this, there is a checkbox labeled 'Got it, I'm ready to continue.' which is checked. At the bottom, there are three buttons: 'Back', 'Install' (highlighted with an orange border), and 'Cancel'.</p> <p>Check Got it, I'm ready to continue and then click Install.</p>
21.	 <p>The screenshot shows the 'Installing prerequisites and components' screen. A progress bar indicates 'About 21 minutes remaining...'. The 'Installing...' section shows 'Prerequisites' with 'XenApp 6.5 Uninstallation' marked as 'Completed'. Below this, a 'Post Install' section shows 'Component Initialization' as 'Installed'. A blue error dialog box is overlaid on the screen, titled 'XenApp', with an information icon and the message: 'The machine needs to be restarted before the installation can continue.' A 'Close' button is highlighted with an orange border.</p> <p>After five or six minutes, XA65-W will need to reboot. Click Close.</p>
22.	<p>Check the XenCenter console for XA65-W. Once the reboot is complete, on the Student Desktop, double-click the XA65-W shortcut.</p>  <p>The image shows a desktop shortcut icon for 'XA65-W.RDP' with a blue background and a white icon of a computer monitor with a green checkmark.</p>

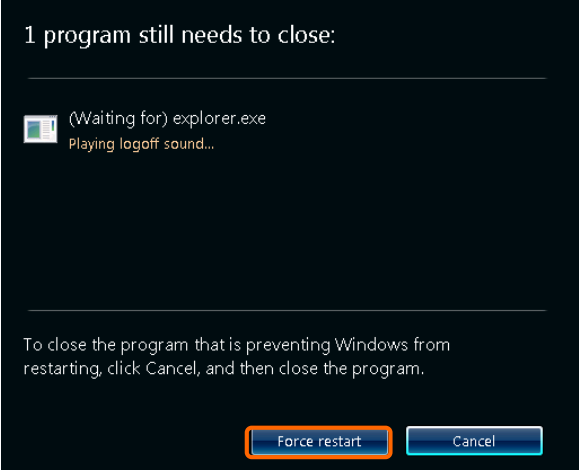
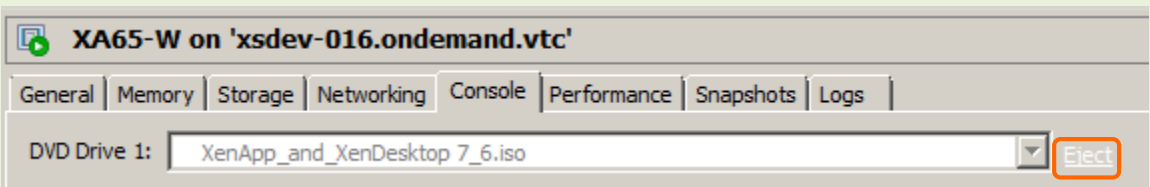
Step	Action
23.	 <p>The VDA upgrade will continue automatically.</p>
24.	 <p>After a few minutes, XA65-W will need to reboot again. Click Close.</p>
25.	<p>Check the XenCenter console for XA65-W. Once the reboot is complete, on the Student Desktop, double-click the XA65-W shortcut.</p> 

Step	Action
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26.	 <p>The VDA upgrade will continue automatically.</p>
-----	----------------------------------------------------------------------------------------------------------------------------------------

27.	 <p>Notice that the Post Install Component Initialization fails when it attempts to initialize the Microsoft Remote Desktop Connection. However, this is not a problem.</p> <p>Deselect Show Error Log and then Click Finish.</p>
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28.	 <p>On XA65-W click the Start Button, select the arrow next to Log off and then select Restart.</p>
-----	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Step	Action
29.	 <p>You may see this dialog. Either wait a few moments for explore.exe to close, or click Force Restart and then click Yes.</p>
30.	 <p>On XenCenter, eject the XenApp DVD by clicking the Eject button as shown above.</p>

Exercise Summary

You have upgraded the XenApp 6.5 Worker VM by installing the XenApp 7.6 VDA allowing it to work with XenApp 7.6 Controllers.

Exercise 2: Adding Upgraded Machines to XenApp 7.6



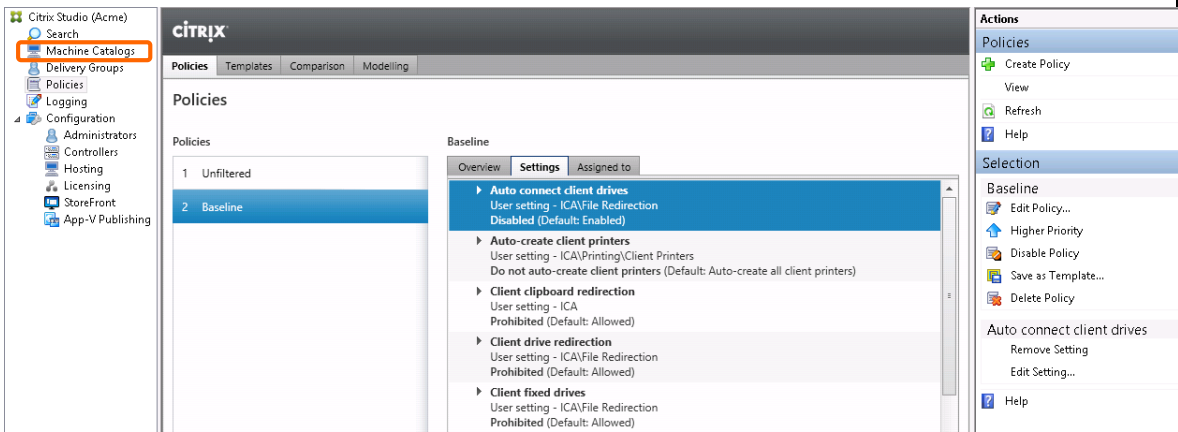
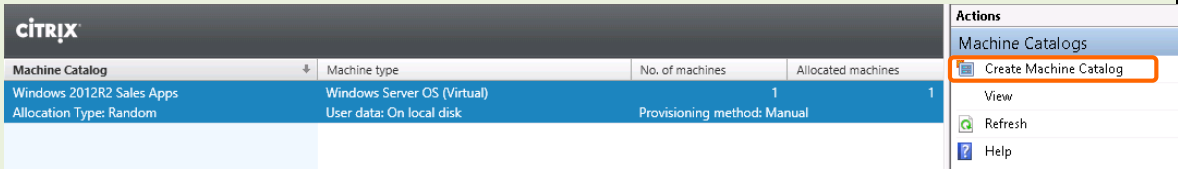
Overview

In this exercise you will:

- Create a new Machine Catalog in the XenApp 7.6 deployment to contain the upgraded Worker VM.
- Add the upgrade Worker VM into the new Machine Catalog

Step by step guidance

Estimated time to complete this exercise: 15 minutes.

Step	Action
1.	<p>On the Student Desktop, double-click the DC1 shortcut.</p> 
2.	<p>On the DC1 desktop, if Studio is not already open, double-click the Studio shortcut.</p> 
3.	 <p>Click Machine Catalogs on the left.</p>
4.	 <p>Click Create Machine Catalog on the right.</p>

5.

Studio

Introduction

Operating System
Machine Management
Machines
Summary

Machine Catalogs are collections of physical or virtual machines that you assign to users. You create Catalogs from Master Images or physical machines in your environment.

Important: The Master Image or physical machine that you use to create a Catalog must have a Virtual Delivery Agent installed. Also, ensure that the operating system is up-to-date and that applications are installed.

Before you begin, make sure that you:

- Identify the types of desktops and applications your users need
- Choose a Catalog infrastructure (for example, whether to power manage virtual machines)
- Have a technology for creating and managing machines (such as Machine Creation Services or Provisioning Services)
- Prepare your environment, including the Master Image, computer accounts, and network interface card configuration.

[Learn more](#)

Don't show this again

Back Next Cancel

Click **Next**.

6.

Studio

✓ Introduction
Operating System
Machine Management
Machines
Summary

Operating System

Select an operating system for this Machine Catalog.

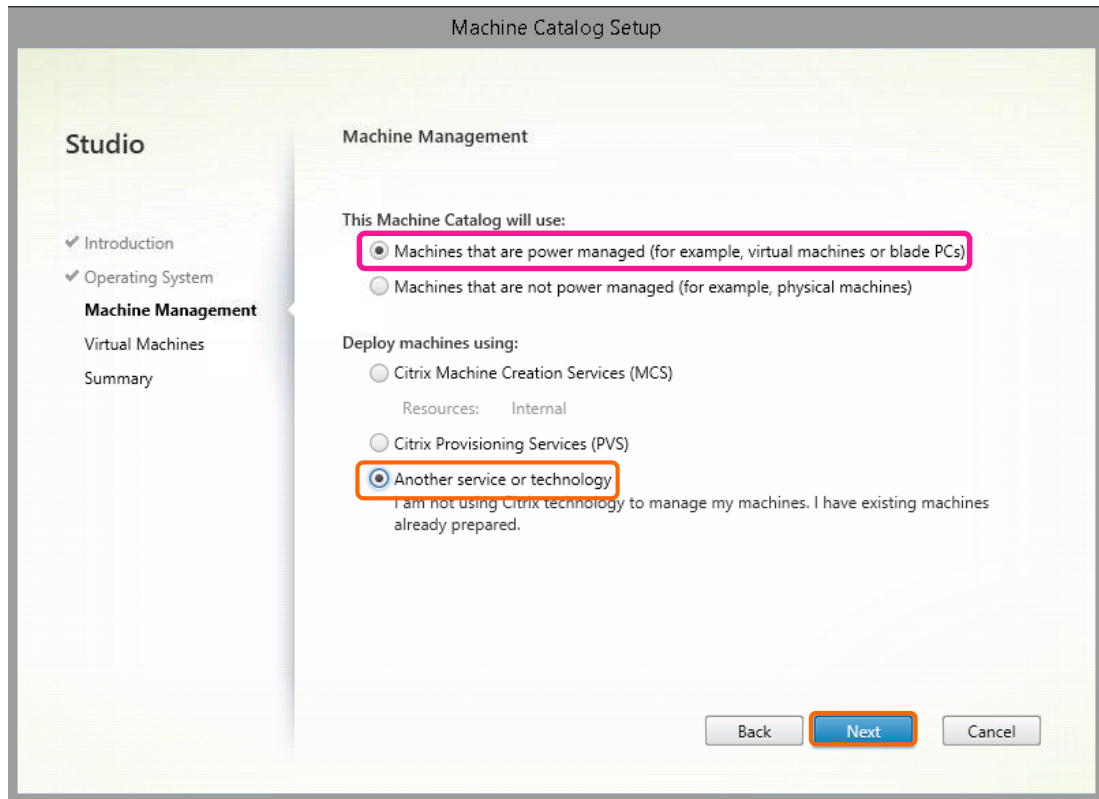
- Windows Server OS**
The Server OS Machine Catalog provides hosted shared desktops for a large-scale deployment of standardized machines.
- Windows Desktop OS
The Desktop OS Machine Catalog provides VDI desktops ideal for a variety of different users.
- Remote PC Access
The Remote PC Access Machine Catalog provides users with remote access to their physical office desktops, allowing them to work at any time.

There are currently no power management connections suitable for use with Remote PC Access, but you can create one after completing this wizard. Then edit this machine catalog to specify that connection.

Back Next Cancel

Ensure **Windows Server OS** is selected and click **Next**.

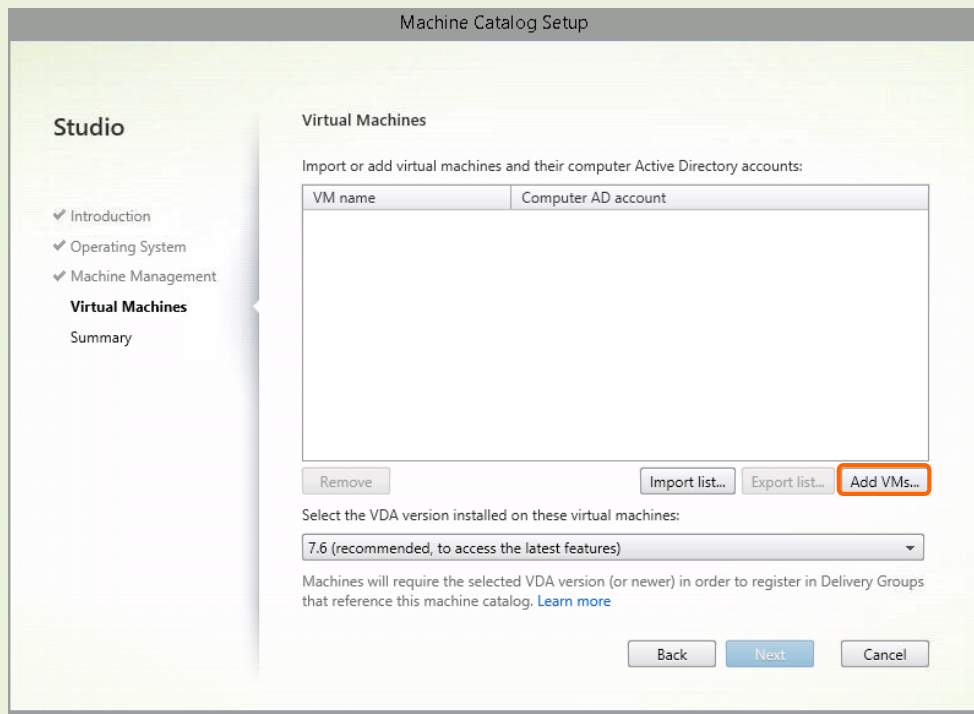
7.



Verify that **Machines that are Power Managed** is selected.

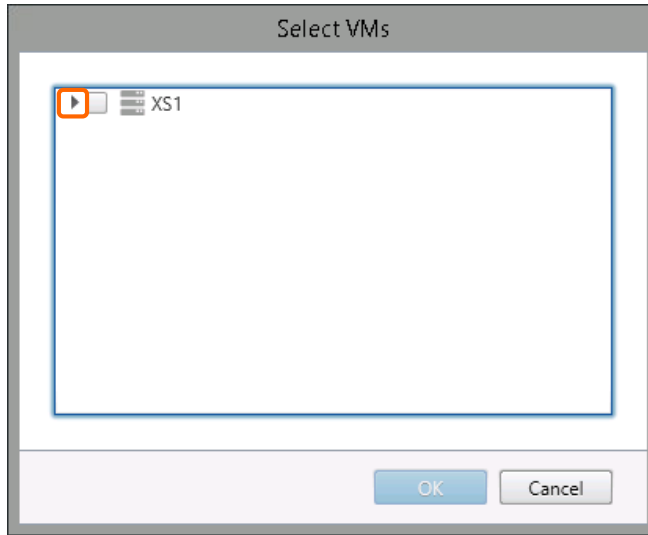
Select **Another service or technology** and click **Next**.

8.



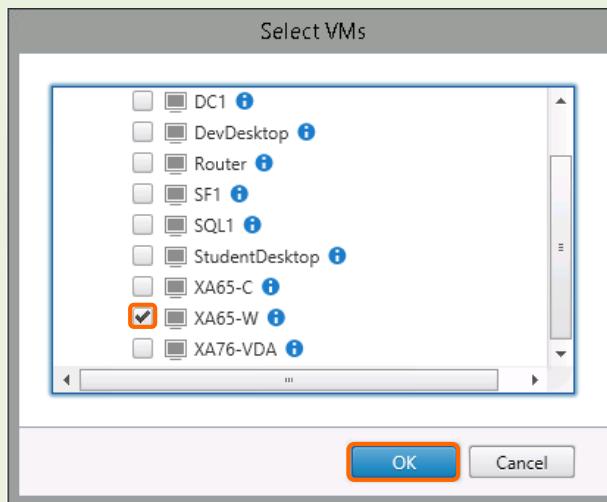
Click **Add VMs...**

9.



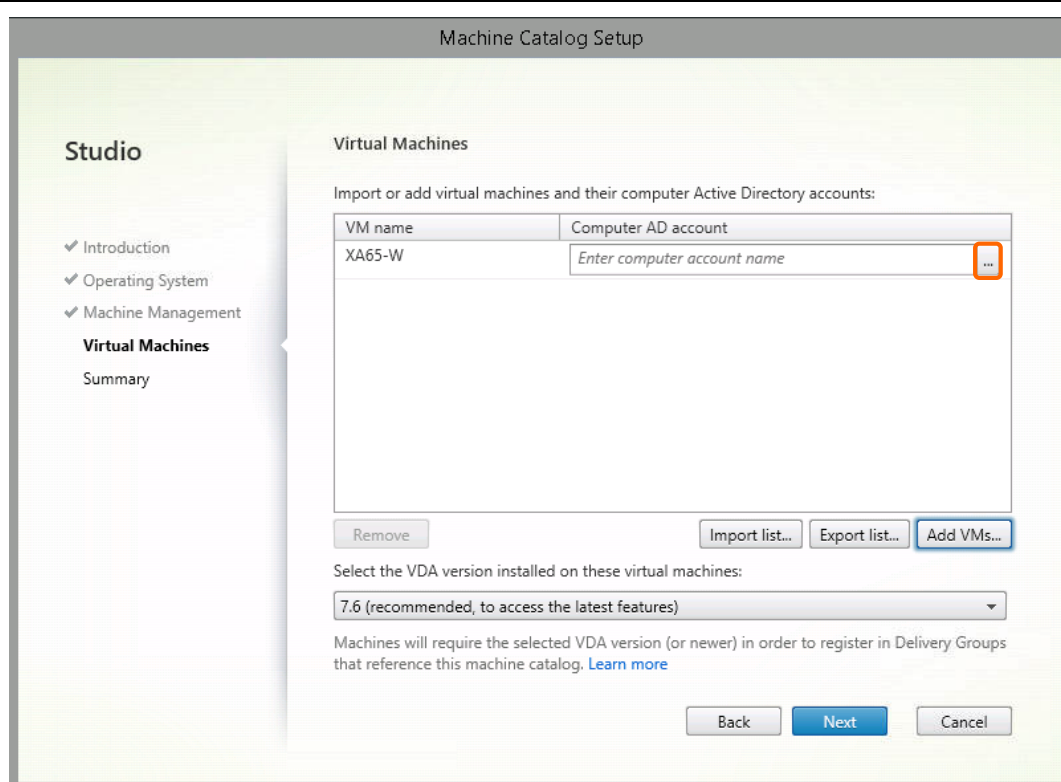
Click the **arrow** next to XS1 to expand the VM list.

10.



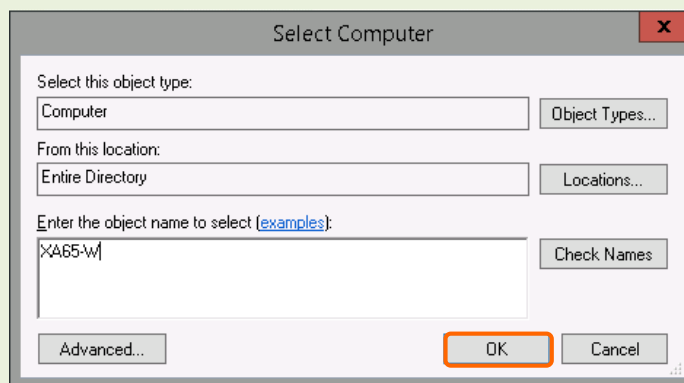
Scroll down and check the box next to **XA65-W**. Click **OK**.

11.



Mouse over **Enter computer account name** and click ...

12.

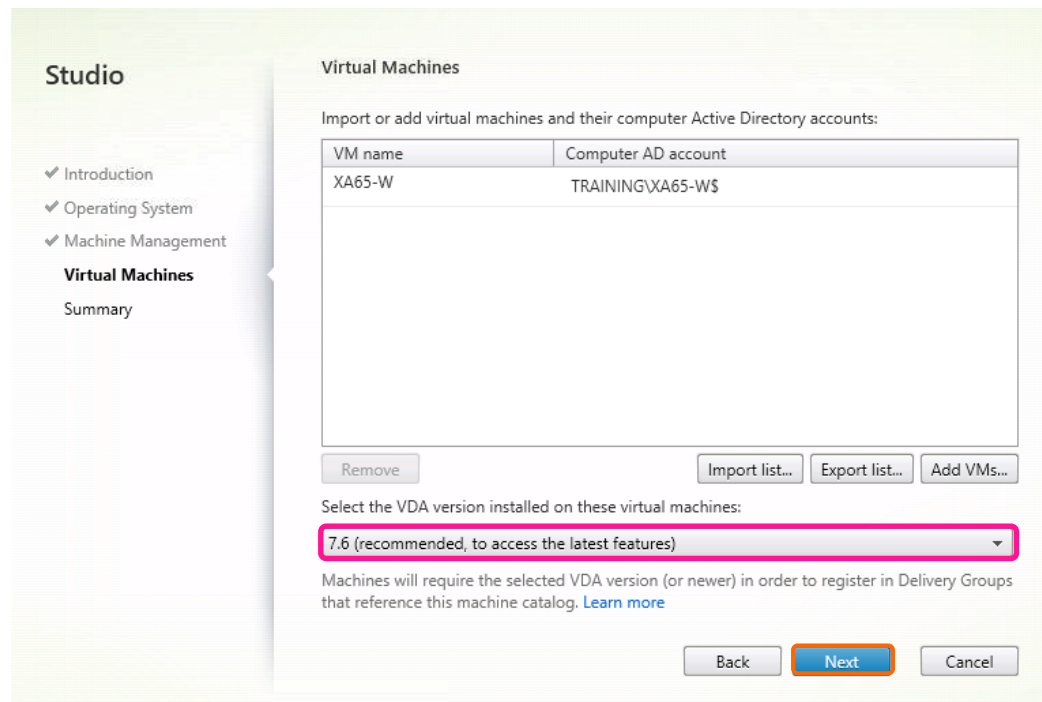


Enter the following information:

Enter the object name to select (examples): **XA65-W**

Click **OK**.

13.

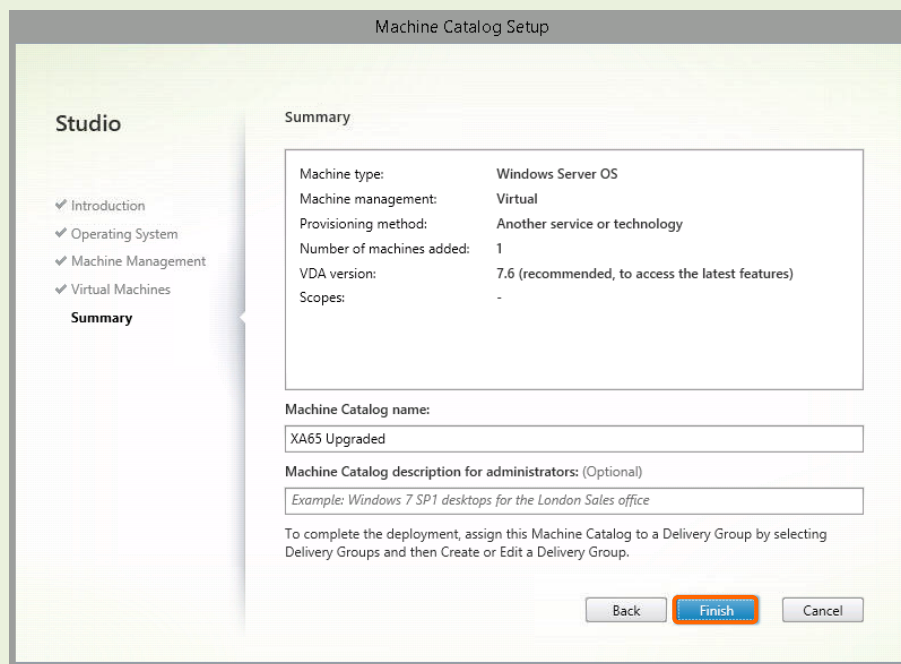


Verify that TRAINING\XA65-W\$ appears in the Computer AD account column.

Note that the VDA version on XA65-W is now 7.6.

Click **Next**.

14.



Enter a name for the Machine Catalog name:

Machine Catalog Name XA65 Upgraded

Click **Finish**.

15.

The screenshot shows the Citrix Studio interface with the 'Machine Catalogs' view selected. The left-hand navigation pane shows 'Machine Catalogs' and 'Delivery Groups' under the 'Configuration' section. The main pane displays a table of machine catalogs:

Machine Catalog	Machine type	No. of machines	Allocated machines
Windows 2012R2 Sales Apps Allocation Type: Random	Windows Server OS (Virtual) User data: On local disk	1	1
XA65 Upgraded Allocation Type: Random	Windows Server OS (Virtual) User data: On local disk	1	0

Notice the new Machine Catalog is added to Studio.

16.

The screenshot shows the Citrix Studio interface with the 'Delivery Groups' node highlighted in the left-hand navigation pane. The main pane displays the same 'Machine Catalogs' table as in step 15:

Machine Catalog	Machine type	No. of machines	Allocated machines
Windows 2012R2 Sales Apps Allocation Type: Random	Windows Server OS (Virtual) User data: On local disk	1	1
XA65 Upgraded Allocation Type: Random	Windows Server OS (Virtual) User data: On local disk	1	0

Click the **Delivery Groups** node.

17.

The screenshot shows the Citrix Studio interface with the 'Delivery Groups' tab selected in the top navigation bar. The left-hand navigation pane shows 'Delivery Groups' highlighted. The main pane displays a table of applications:

Name	Description	Location	State
Command Prompt		Master Image	Enabled

Click the **Delivery Groups** tab.

18.

The screenshot shows the Citrix Studio interface with the 'Delivery Groups' tab selected. The main pane displays a table of delivery groups:

Delivery Group	Machine type	No. of machines	Sessions in use	No. of applications
Accounting State: Enabled	Windows Server OS	0	0	1
IT State: Enabled	Windows Server OS	0	0	1
Sales Apps State: Enabled	Windows Server OS	1	1	2

Select the **Accounting** Delivery Group by clicking it.

19. You now need to add the XA65-W machine into the Delivery Group.

The screenshot shows the Citrix Studio interface. On the left, a table lists Delivery Groups:

Delivery Group	Machine type	No. of machines	Sessions in use	No. of applications
Accounting State: Enabled	Windows Server OS	0 Unregistered: 0	0 Disconnected: 0	1
IT State: Enabled	Windows Server OS	0 Unregistered: 0	0 Disconnected: 0	1
Sales Apps State: Enabled	Windows Server OS	1 Unregistered: 0	1 Disconnected: 1	2

On the right, the 'Actions' menu is open, and 'Add Machines' is highlighted with a red box.

Click **Add Machines** on the right.

20.

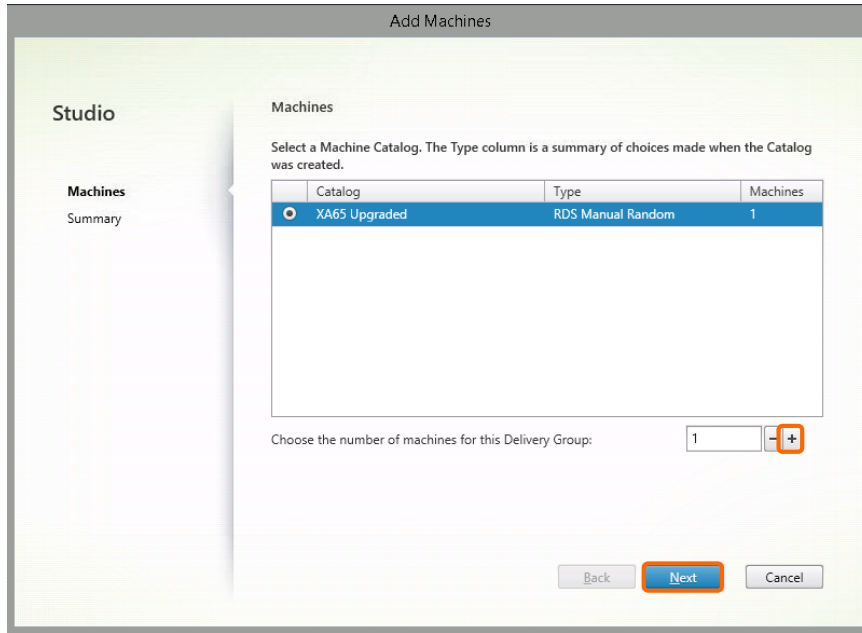
The screenshot shows the 'Add Machines' dialog box. It has a 'Studio' sidebar on the left with 'Machines' selected. The main area is titled 'Machines' and contains the following text: 'Select a Machine Catalog. The Type column is a summary of choices made when the Catalog was created.'

Catalog	Type	Machines
<input checked="" type="radio"/> XA65 Upgraded	RDS Manual Random	1

Below the table, there is a text input field for 'Choose the number of machines for this Delivery Group:' with the value '0' and minus/plus buttons. At the bottom are 'Back', 'Next', and 'Cancel' buttons.

You should see the Machine Catalog you just created is highlighted.

21.

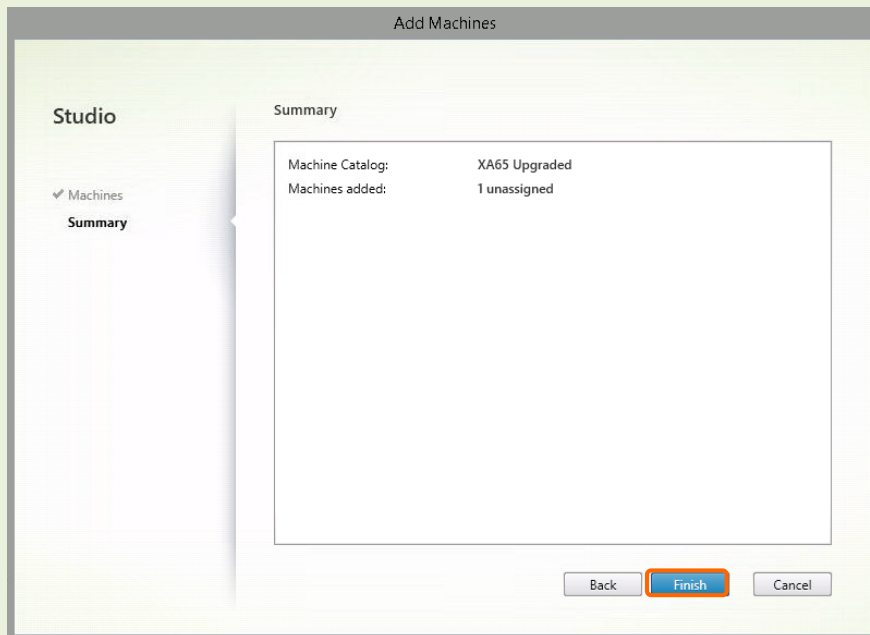


Increase the machine count of machines used from Machine Catalog:

Number of machines for this Delivery Group	1
--------------------------------------------	---

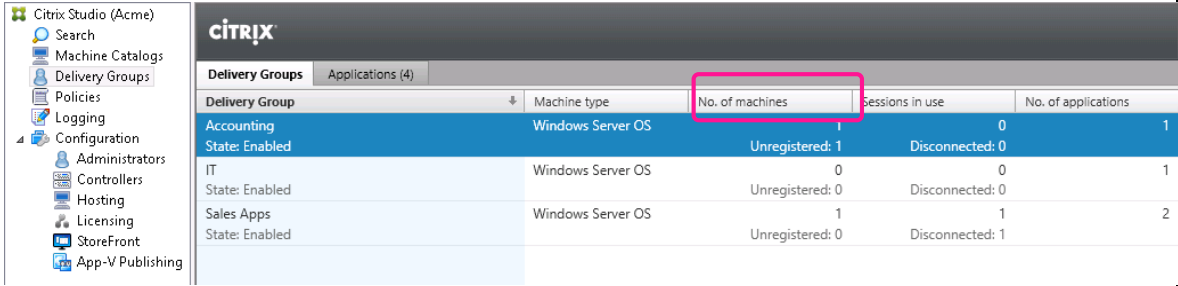
Click **Next**.

22.



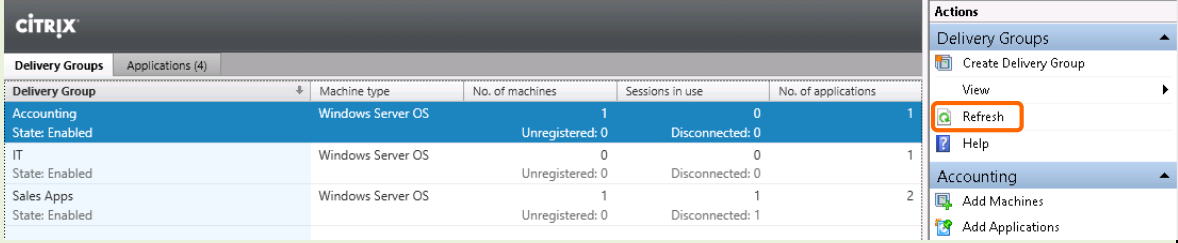
Click **Finish**.

23.



Notice the number of machines for the Accounting Delivery Group is now 1 and shows it is unregistered.

24.



After 15 seconds or so, click **Refresh** on the right and notice the machine is now registered.

25. Close the DC1 Remote Desktop Connection window by clicking the **X** in the upper-right corner and the clicking **OK**.

Exercise Summary

You have created a new Machine Catalog containing the upgraded XenApp Worker VM and assigned it to a Delivery Group.

Exercise 3: Testing the Imported XenApp Settings

Overview



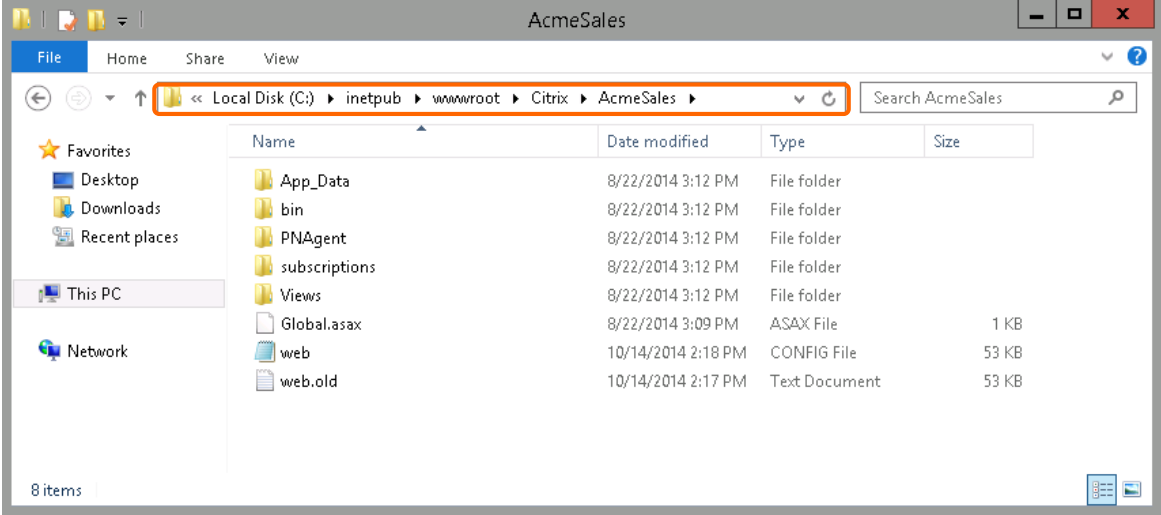
The final step of the upgrade process is to test the imported Worker VM to ensure the hosted applications are served to the users. Before the test can be run, the XenApp 6.5 controller (added in module 2) must be removed from the Acme Sales store, as it will no longer be used.

In this exercise you will:

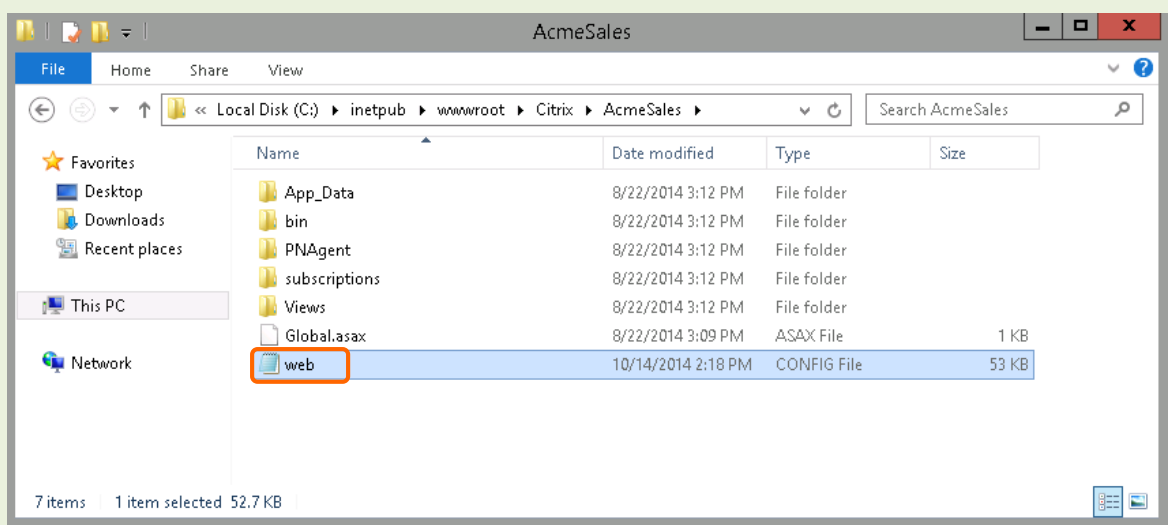
- Remove the XenApp 6.5 controller from StoreFront
- See that with only the XenApp 7.6 controller (DC1) in use, the Accounting Tools applications migrated from XenApp 6.5 (MS Excel) are available.

Step by step guidance

Estimated time to complete this exercise: 10 minutes.

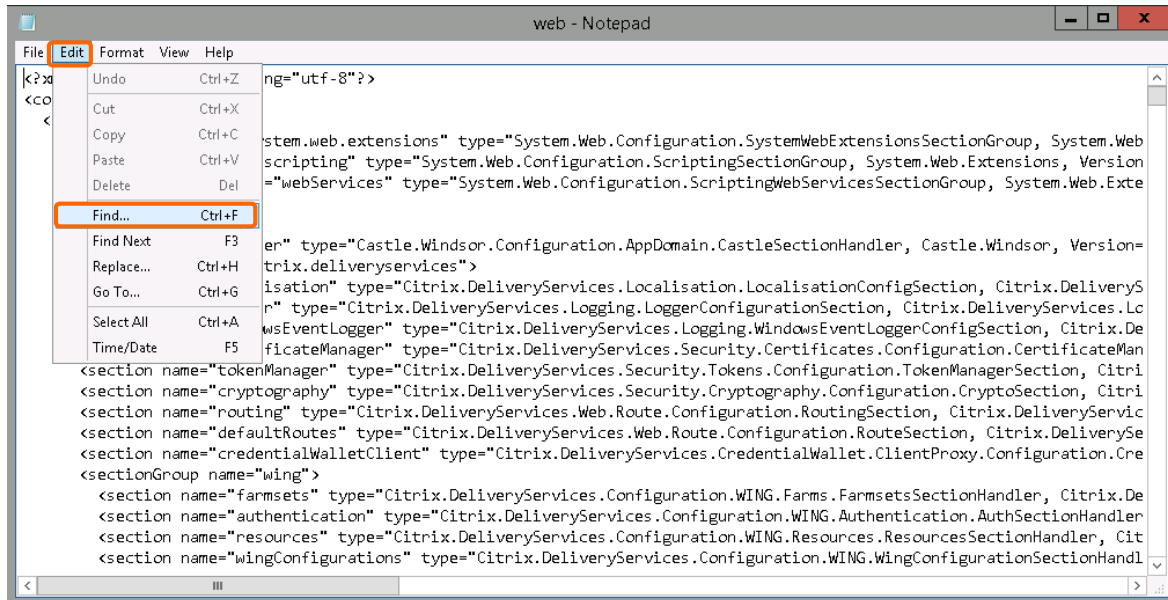
Step	Action
1.	<p>On the Student Desktop, double-click the SF1 shortcut.</p> 
2.	 <p>On the SF1 desktop, click the File Explorer icon on the task bar.</p>
3.	<p>Because you edited the AcmeSales web.config file in Module 1, Delivery Controller settings can no longer be modified from the Citrix StoreFront console. In order to remove the XA65 Delivery Controller, we must edit the web.config file.</p>  <p>Navigate to C:\inetpub\wwwroot\Citrix\AcmeSales</p>

4.



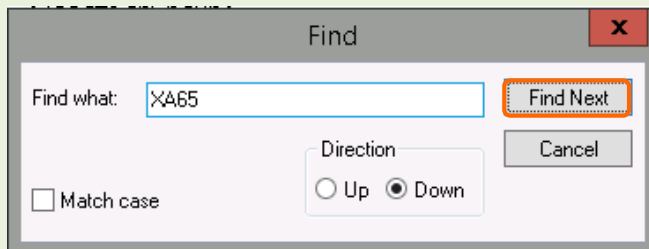
Double-click the **web.config** file

5.



Click **Edit** and select **Find...**

6.

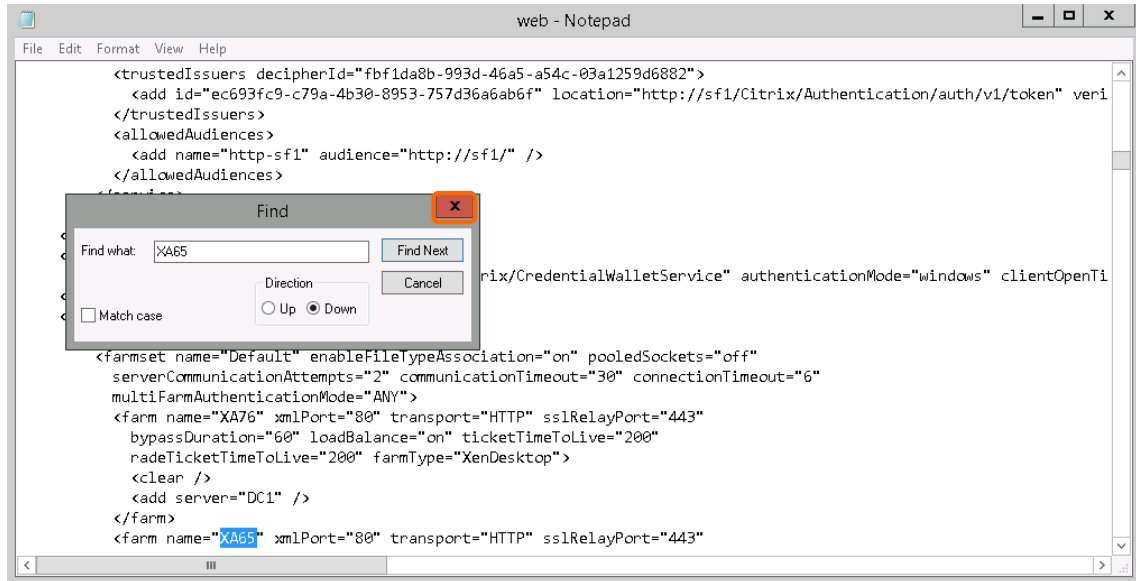


Enter the following:

Find what:

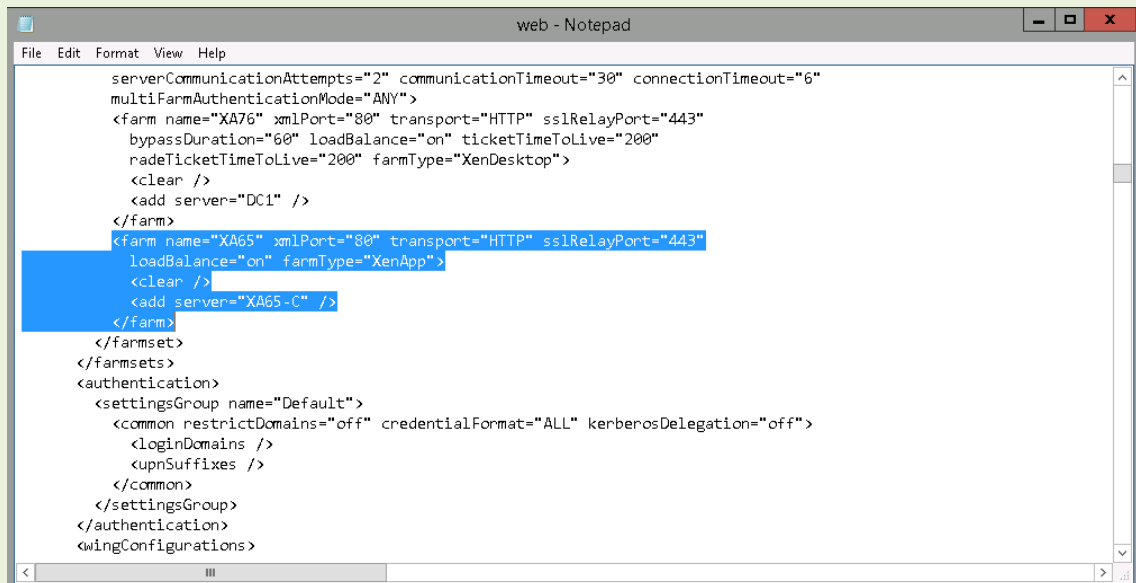
Click **Find Next**.

7.



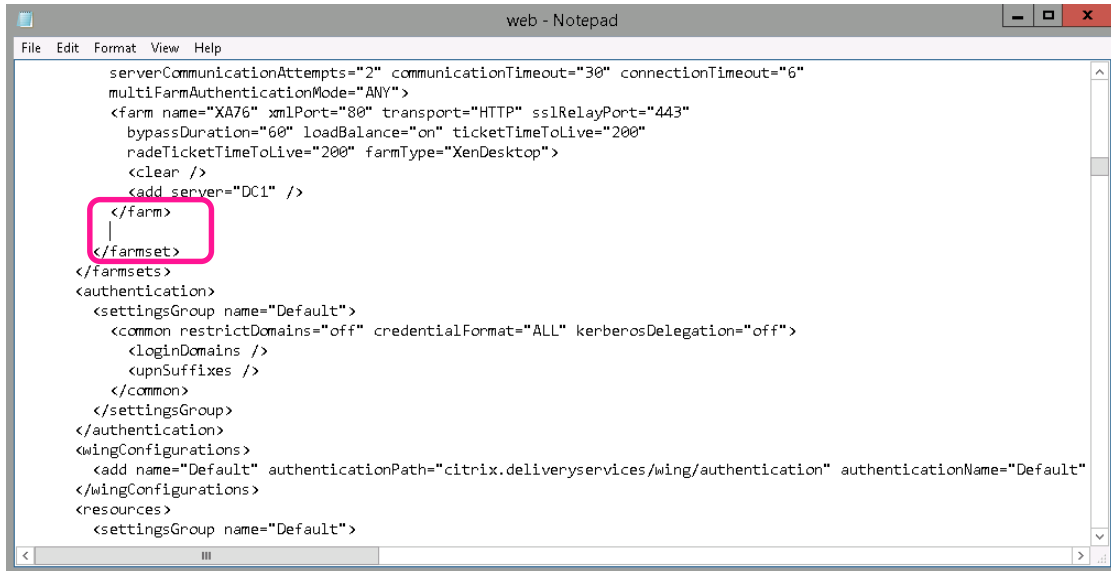
Verify XA65 was found and is highlighted. Click the **X** to close the Find window.

8.



Scroll down and select all of the text from <farm name="XA65"... to </farm>.

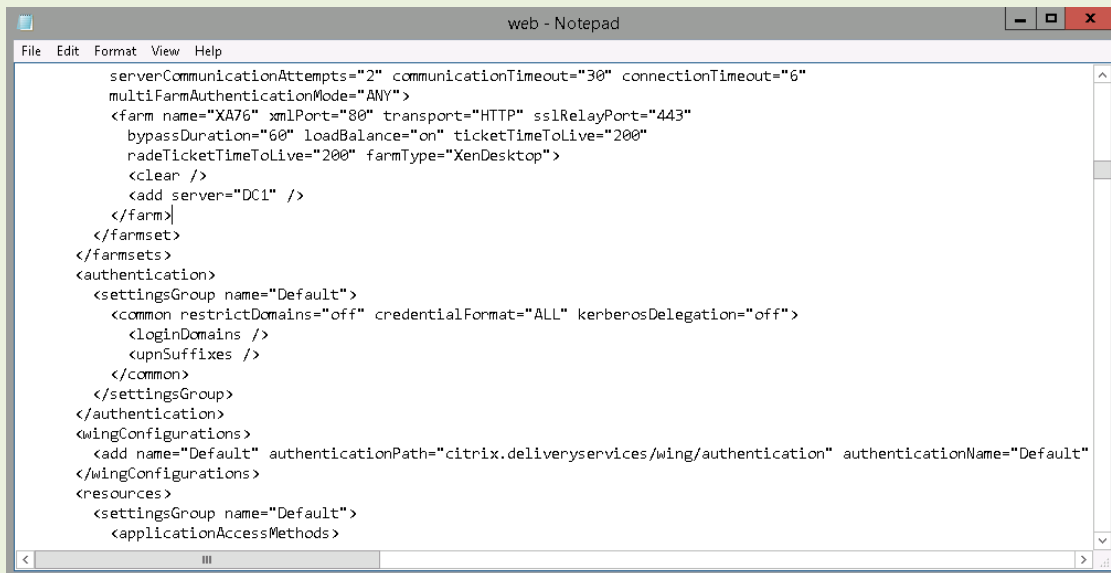
9.



```
serverCommunicationAttempts="2" communicationTimeout="30" connectionTimeout="6"
multiFarmAuthenticationMode="ANY">
<farm name="XA76" xmlPort="80" transport="HTTP" sslRelayPort="443"
bypassDuration="60" loadBalance="on" ticketTimeToLive="200"
nadeTicketTimeToLive="200" farmType="XenDesktop">
<clear />
<add server="DC1" />
</farm>
</farmset>
</farmsets>
<authentication>
<settingsGroup name="Default">
<common restrictDomains="off" credentialFormat="ALL" kerberosDelegation="off">
<loginDomains />
<upnSuffixes />
</common>
</settingsGroup>
</authentication>
<wingConfigurations>
<add name="Default" authenticationPath="citrix.deliveryservices/wing/authentication" authenticationName="Default"
</wingConfigurations>
<resources>
<settingsGroup name="Default">
```

Press the Backspace key (Delete on Mac) and verify you have removed the text, leaving a blank line between </farm> and </farmset>.

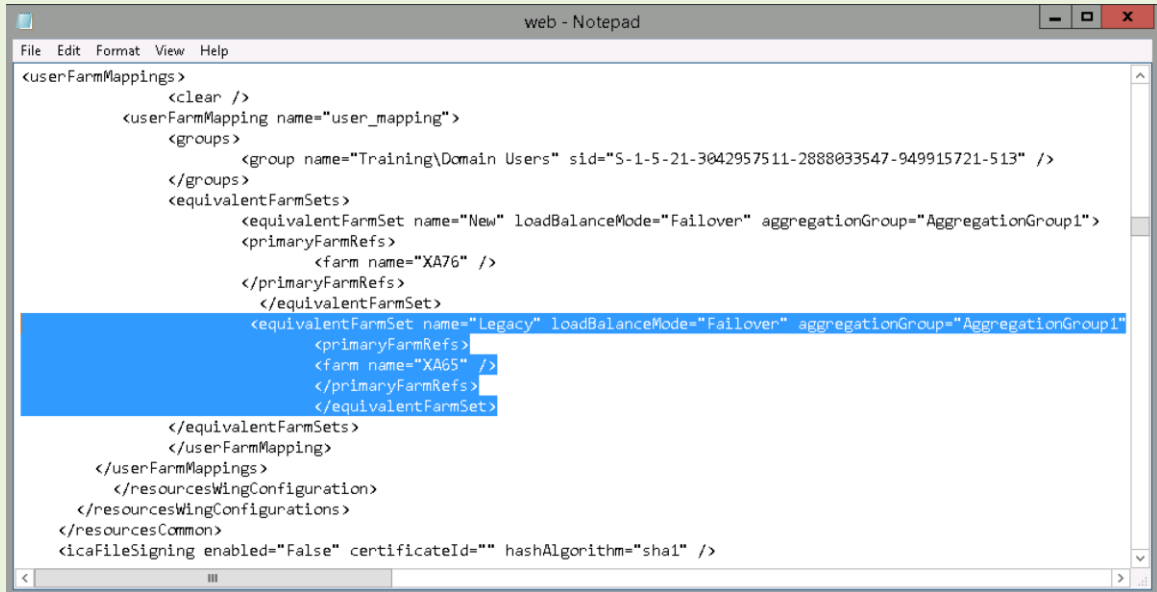
10.



```
serverCommunicationAttempts="2" communicationTimeout="30" connectionTimeout="6"
multiFarmAuthenticationMode="ANY">
<farm name="XA76" xmlPort="80" transport="HTTP" sslRelayPort="443"
bypassDuration="60" loadBalance="on" ticketTimeToLive="200"
nadeTicketTimeToLive="200" farmType="XenDesktop">
<clear />
<add server="DC1" />
</farm>
</farmset>
</farmsets>
<authentication>
<settingsGroup name="Default">
<common restrictDomains="off" credentialFormat="ALL" kerberosDelegation="off">
<loginDomains />
<upnSuffixes />
</common>
</settingsGroup>
</authentication>
<wingConfigurations>
<add name="Default" authenticationPath="citrix.deliveryservices/wing/authentication" authenticationName="Default"
</wingConfigurations>
<resources>
<settingsGroup name="Default">
<applicationAccessMethods>
```

Press the Backspace key again until the blank line is deleted.

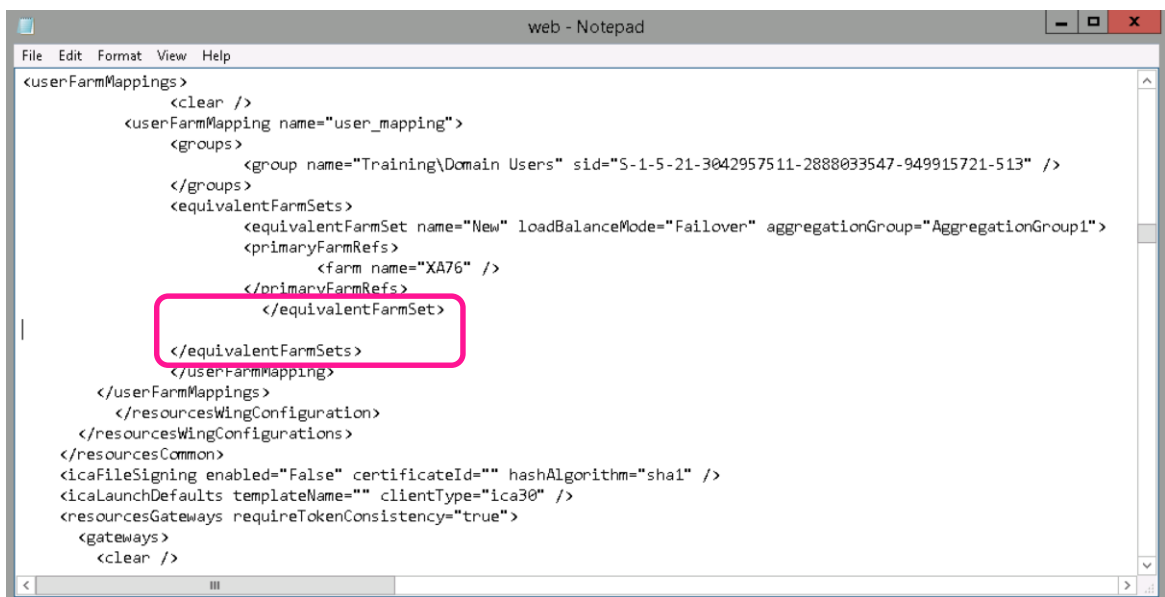
14.



```
File Edit Format View Help
<userFarmMappings>
  <clear />
  <userFarmMapping name="user_mapping">
    <groups>
      <group name="Training\Domain Users" sid="S-1-5-21-3042957511-2888033547-949915721-513" />
    </groups>
    <equivalentFarmSets>
      <equivalentFarmSet name="New" loadBalanceMode="Failover" aggregationGroup="AggregationGroup1">
        <primaryFarmRefs>
          <farm name="XA76" />
        </primaryFarmRefs>
      </equivalentFarmSet>
      <equivalentFarmSet name="Legacy" loadBalanceMode="Failover" aggregationGroup="AggregationGroup1">
        <primaryFarmRefs>
          <farm name="XA65" />
        </primaryFarmRefs>
      </equivalentFarmSet>
    </equivalentFarmSets>
  </userFarmMapping>
</userFarmMappings>
</resourcesWingConfiguration>
</resourcesWingConfigurations>
</resourcesCommon>
<icaFileSigning enabled="False" certificateId="" hashAlgorithm="sha1" />
```

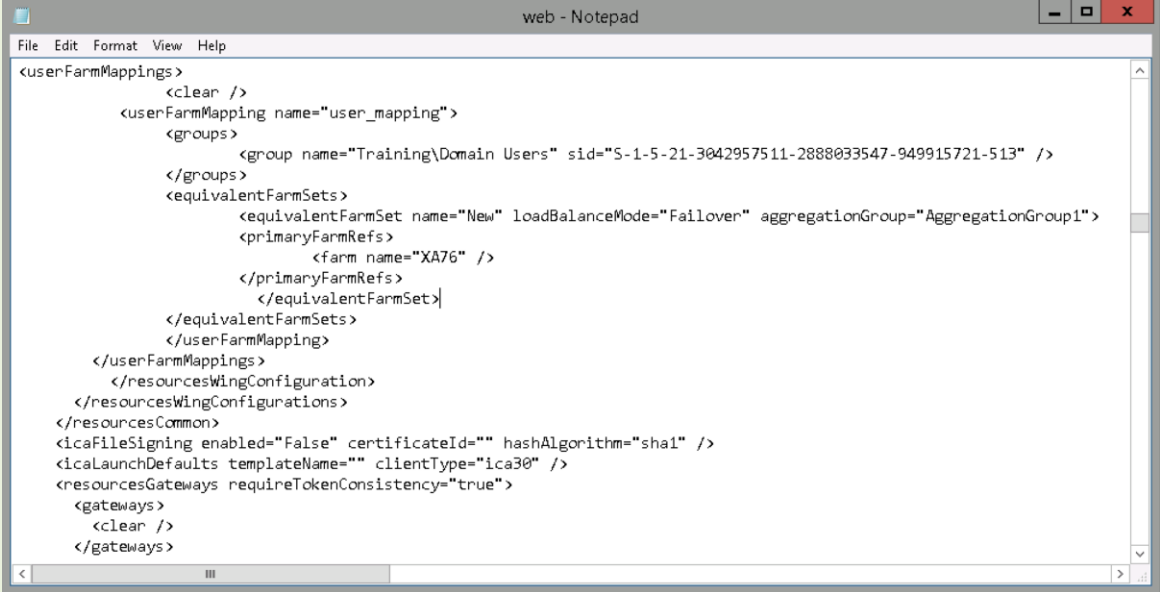
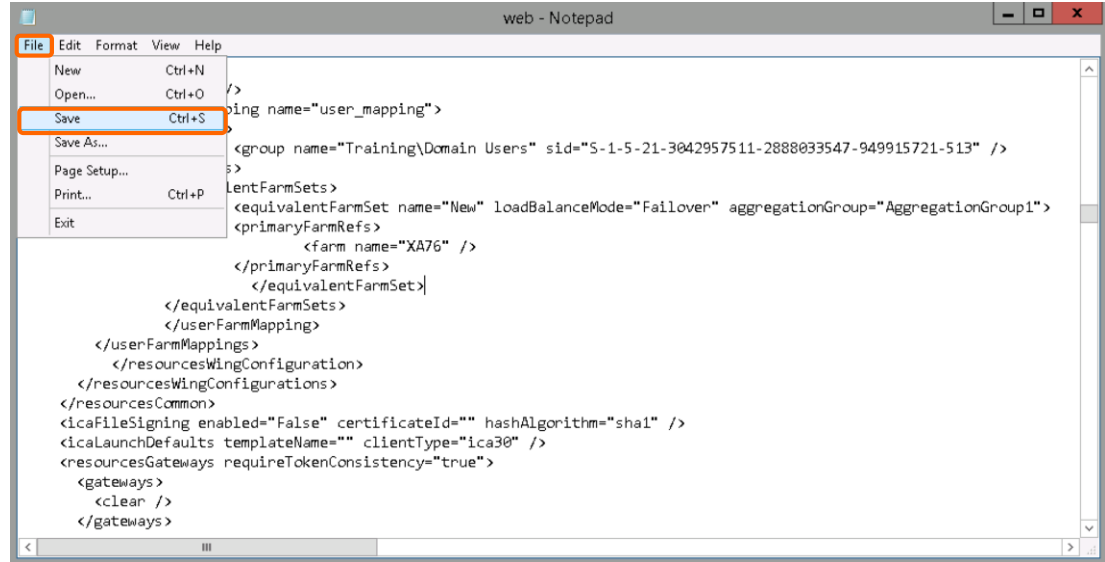

Scroll down and select all of the text from **<equivalentFarmSet name="Legacy"...** to **</equivalentFarmSet>**.

15.



```
File Edit Format View Help
<userFarmMappings>
  <clear />
  <userFarmMapping name="user_mapping">
    <groups>
      <group name="Training\Domain Users" sid="S-1-5-21-3042957511-2888033547-949915721-513" />
    </groups>
    <equivalentFarmSets>
      <equivalentFarmSet name="New" loadBalanceMode="Failover" aggregationGroup="AggregationGroup1">
        <primaryFarmRefs>
          <farm name="XA76" />
        </primaryFarmRefs>
      </equivalentFarmSet>
      </equivalentFarmSet>
    </equivalentFarmSets>
  </userFarmMapping>
</userFarmMappings>
</resourcesWingConfiguration>
</resourcesWingConfigurations>
</resourcesCommon>
<icaFileSigning enabled="False" certificateId="" hashAlgorithm="sha1" />
<icaLaunchDefaults templateName="" clientType="ica30" />
<resourcesGateways requireTokenConsistency="true">
  <gateways>
    <clear />
  </gateways>
</resourcesGateways>
</resourcesCommon>
```

Press the Backspace key (Delete on Mac) and verify you have removed the text, leaving a blank line between **</equivalentFarmSet>** and **</equivalentFarmSets>**.

16.	 <pre> web - Notepad File Edit Format View Help <userFarmMappings> <clear /> <userFarmMapping name="user_mapping"> <groups> <group name="Training\Domain Users" sid="S-1-5-21-3042957511-2888033547-949915721-513" /> </groups> <equivalentFarmSets> <equivalentFarmSet name="New" loadBalanceMode="Failover" aggregationGroup="AggregationGroup1"> <primaryFarmRefs> <farm name="XA76" /> </primaryFarmRefs> </equivalentFarmSet> </equivalentFarmSets> </userFarmMapping> </userFarmMappings> </resourcesWingConfiguration> </resourcesWingConfigurations> </resourcesCommon> <icaFileSigning enabled="False" certificateId="" hashAlgorithm="sha1" /> <icaLaunchDefaults templateName="" clientType="ica30" /> <resourcesGateways requireTokenConsistency="true"> <gateways> <clear /> </gateways> </pre> <p>Press the Backspace key again until the blank line is deleted.</p>
17.	 <p>Click File and select Save.</p>
18.	Close Notepad by clicking the X at the upper-right.
19.	Close the SF1 Remote Desktop Connection by clicking the X at the upper-right and then clicking OK .
20.	 <p>Click the Internet Explorer icon at the lower left of the Student Desktop</p>
21.	Enter the URL of the XenApp 7.6 Store http://sf1/Citrix/AcmeSalesWeb/

22.

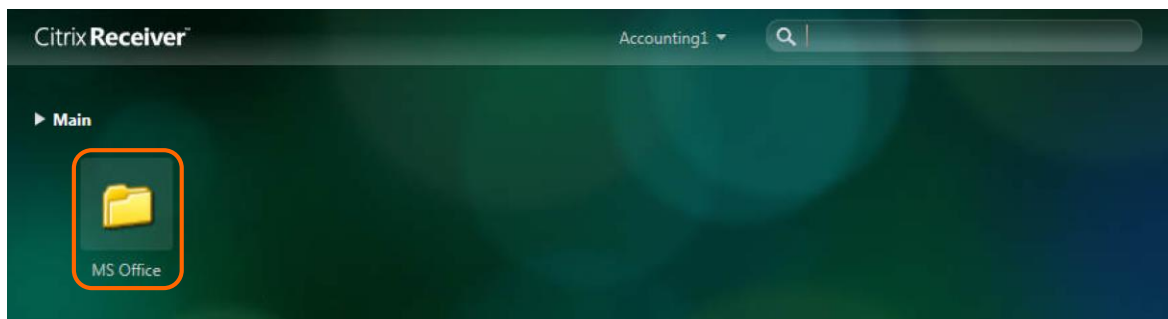


Enter the following:

User Name	training\accounting1
Password	Citrix123

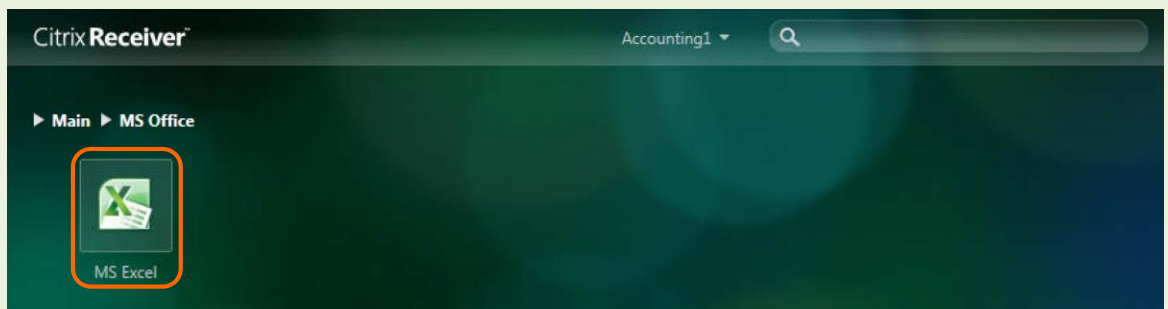
Click **Log-On**.

23.



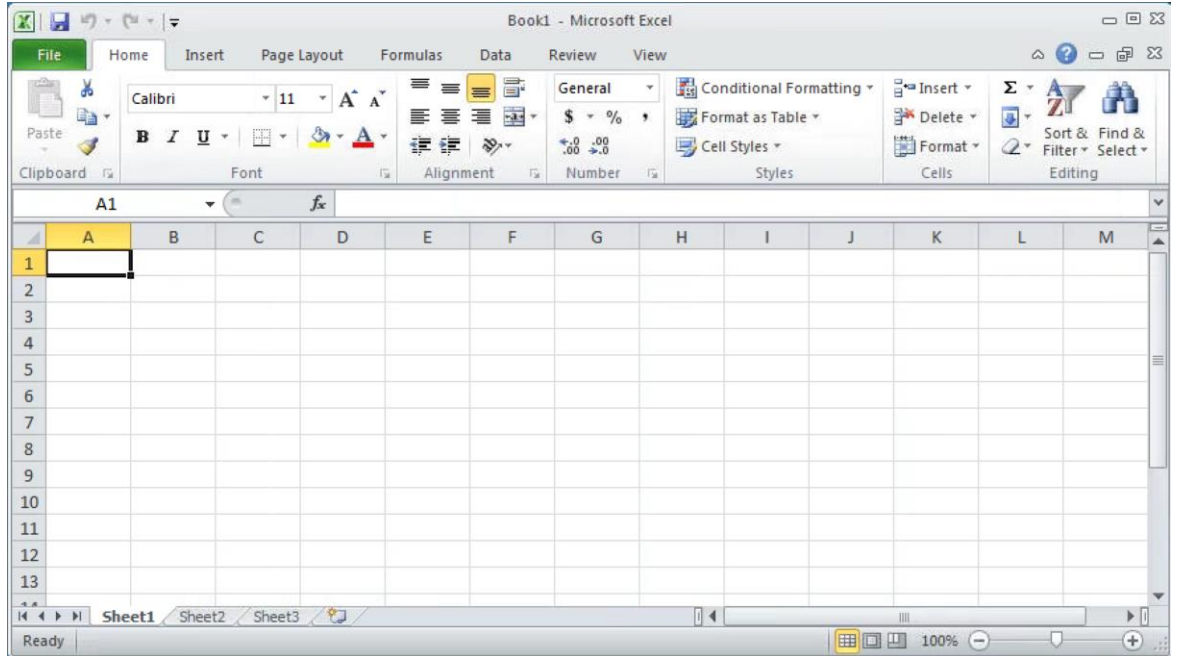
Click the **MS Office** folder.

24.



Click **MS Excel** to launch the application.

25.



Notice MS Excel, an application served by the XenApp 7.6 deployment opens from the XA65-W VDA.

Close the MS Excel application.

Exercise Summary

You have shown that the XenApp 6.5 hosted application, MS Excel, has been successfully migrated to the XenApp 7.6 deployment.

Bonus Exercise

Farm Import Script Functions

The Farm Import script can be used to import applications from specific folders as demonstrated previously in this lab, but can also import all applications in the XML file, combinations of application folders or all applications except for a specified folder. If you have additional time, try running the import script again on DC1 by using the commands below. If you need guidance, refer to the Importing Data to XenApp 7.6 exercise on page 59.

Try the following:

Import all applications into a delivery group with the default name:

```
Import-XAFarm -XmlInputFile ".\CompleteFarm.XML" -LogFile ".\CompleteFarm.log"
```

Import all applications except for those in the Anonymous Apps folder to a delivery group named NoAnonymous:

```
Import-XAFarm -XmlInputFile ".\CompleteFarm.XML" -LogFile ".\NoAnonFarm.log" -  
DeliveryGroupName "NoAnonymous" -NoMatchFolder "Applications/Anonymous Apps"
```

Import only applications from the Accounting Tools, Employee Tools and IT Support Tools folders into a delivery group named ITExecutives:

```
Import-XAFarm -XmlInputFile ".\CompleteFarm.XML" -LogFile  
".\ITExecutivesFarm.log" -DeliveryGroupName "ITExecutives" -MatchFolder  
"Applications/(Accounting Tools|Employee Tools|IT Support Tools)"
```

For more information on using the Migration Tool:

<http://support.citrix.com/proddocs/topic/xenapp-xendesktop-76/xad-xamigrate.html>

<https://www.youtube.com/watch?v=DCI7MxqQgGo&feature=youtu.be>

Revision:	Change Description	Updated By	Date
1.0	Original	Evin Safdia	January 2015

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