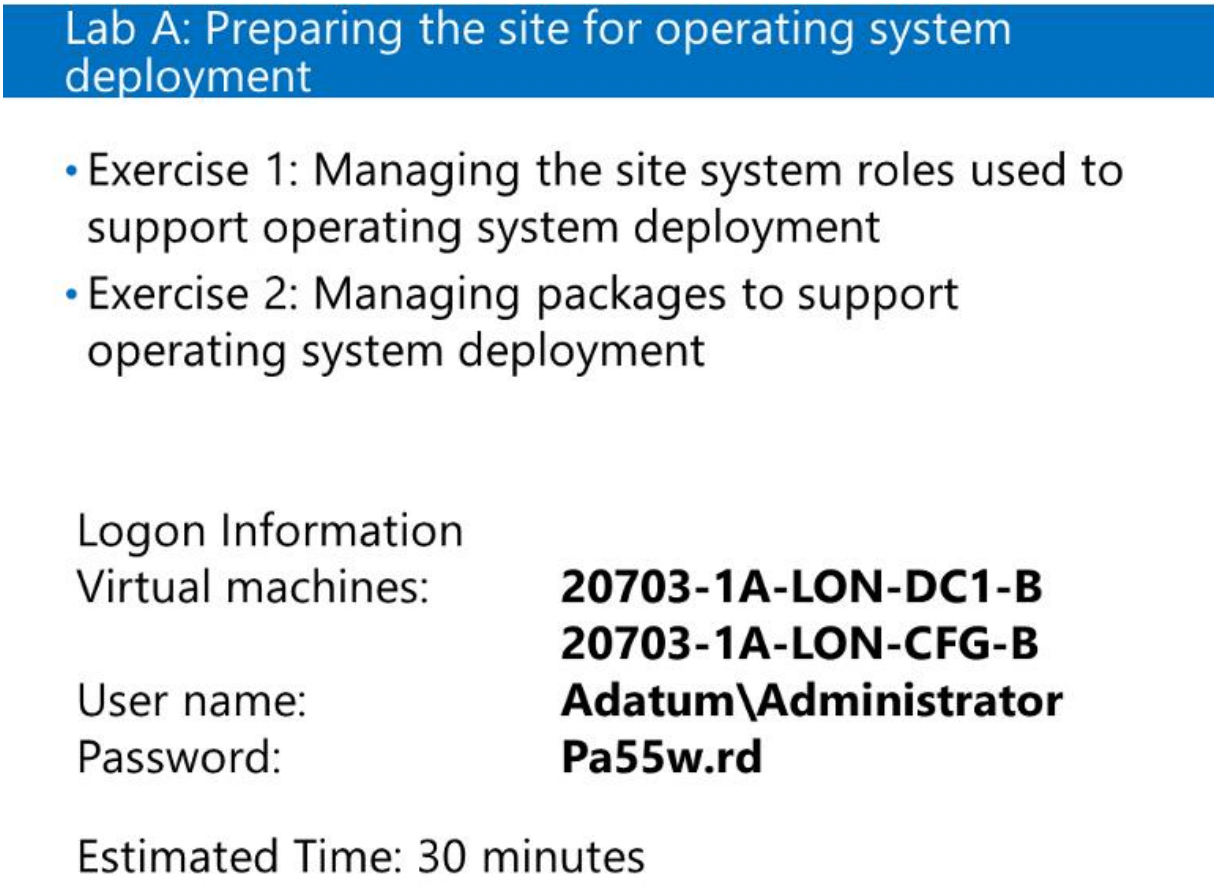

Lab: Preparing the site for operating system deployment

Scenario

A. Datum Corporation has made a large purchase of bare-metal systems. To help simplify the deployment, your manager wants you to configure the Operating System Deployment feature in Configuration Manager. You need to configure all the Configuration Manager roles necessary to deploy operating systems successfully.

Exercise 1: Managing the site system roles used to support operating system deployment

▶ Task 1: Enable PXE on the Distribution Point

1. On LON-CFG, on the taskbar, click the Configuration Manager console icon.
2. Click the **Administration** workspace, expand the **Site Configuration** node, and then click the **Servers and Site System Roles** node.
3. In the details pane, select **\\LON-CFG.Adatum.com**, and then in the preview pane, right-click the **Distribution point** role, and then click **Properties**.
4. In the **Distribution point Properties** dialog box, on the **PXE** tab, select the **Enable PXE support for clients** check box. In the **Review Required Ports for PXE** dialog box, click **Yes**.
5. Select the **Allow this distribution point to respond to incoming PXE requests** and **Enable unknown computer support** check boxes.
6. In the **Configuration Manager** message box, click **OK**.
7. In the **Password** and **Confirm password** fields, under **Require a password when computers use PXE**, type **Pa55w.rd**.
8. Next to the **User device affinity** field, select **Allow user device affinity with manual approval**.
9. In the **Distribution point Properties** dialog box, click **OK**.

10. Click the **Monitoring** workspace, expand **Distribution Status**, and then click **Distribution Point Configuration Status**.
11. Right-click **\\LON-CFG.ADATUM.COM**, and then click **Refresh**. Repeat periodically until the **PXE** column displays **Yes**.

▶ Task 2: Configure the Network Access account

1. Click the **Administration** workspace, and then click **Sites**. In the results pane, right-click **S01 - Adatum Site**.
2. Select **Configure Site Components**, and then click **Software Distribution**.
3. In the **Software Distribution Component Properties** dialog box, click the **Network Access Account** tab.
4. Click the **Specify the account that accesses network locations** option.
5. Click **New** (the sun icon), and then click **New Account**.
6. In the **Windows User Account** dialog box, in the **User name** box, type **Adatum\NetworkAccess**, in the **Password** box, type **Pa55w.rd**, and then in the **Confirm password** box, type **Pa55w.rd**.
7. Click **Verify**, in the **Network share** field, type **\\LON-CFG\SMS_S01**, and then click **Test connection**.
8. In the **Configuration Manager** dialog box, click **OK**, and then in the **Windows User Account** dialog box, click **OK**.
9. In the **Software Distribution Components Properties** dialog box, click **OK**.

Exercise 2: Managing packages to support operating system deployment

▶ Task 1: Import Hyper-V drivers

1. In the navigation pane, click **Software Library**, expand **Operating Systems**, click and then right-click **Drivers**, and then click **Import Driver**.
2. In the **Import New Driver Wizard**, on the **Locate Driver** page, click **Browse**.
3. In the **Select Folde**r dialog box, in the **Folder** box, type **\\LON-CFG\Software\Drivers\HyperVx64**, and then click **Select Folder**.
4. On the **Locate Driver** page, click **Next**. Wait for the driver validation to complete.
5. On the **Driver Details** page, clear the **Hide drivers that are not digitally signed** option.
6. Click **Categories**, and then in the **Manage Administrative Categories** dialog box, click **Create**.
7. In the **Create Administrative Category** dialog box, type **64-bit Drivers**, and then click **OK**.
8. In the **Manage Administrative Categories** dialog box, click **Create**.
9. In the **Create Administrative Category** dialog box, type **Hyper-V Drivers**, and then click **OK**.
10. In the **Manage Administrative Categories** dialog box, click **OK**.
11. On the **Driver Details** page, click **Next**.
12. On the **Add Driver to Packages** page, click **New Package**.
13. In the **Create Driver Package** dialog box, in the **Name** box, type **Hyper-V Drivers**, in the **Path** box, type **\\LON-CFG\E$\Source\Drivers**, and then click **OK**.
14. On the **Add Driver to Packages** page, click **Next**.
15. On the **Add Driver to Boot Images** page, click **Next**.
16. On the **Summary** page, click **Next**, and on the **Completion** page, click **Close**.

▶ Task 2: Distribute a driver package

1. In the navigation pane, click **Software Library**, expand **Operating Systems**, and then click **Driver Packages**.
2. Right-click the **Hyper-V Drivers** package, and then click **Distribute Content**.
3. In the **Distribute Content Wizard**, on the **General** page, click **Next**.
4. On the **Content Destination** page, click **Add**, and then click **Distribution Point**.
5. In the **Add Distribution Points** dialog box, select the **LON-CFG.ADATUM.COM** check box, and then click **OK**.
6. On the **Content Destination** page, click **Next**.
7. On the **Summary** page, click **Next**, and then on the **Completion** page, click **Close**.
8. Right-click the **Hyper-V Drivers** package, and then click **Refresh**. Repeat this step periodically until the **Content Status** shows **Success: 1**. This will be indicated by a full green circle and should take about 1 minute.

▶ Task 3: Modify boot images

1. In the navigation pane, click **Boot Images**, right-click **Boot image (x86)**, and then click **Properties**.
2. Click the **Customization** tab, and then select the **Enable command support (testing only)** check box.
3. Click the **Optional Components** tab, and in the **Components** section, click **new** (the sun symbol).
4. In the **Select optional components** window, select **Windows PowerShell (WinPE-PowerShell)**, and when prompted, click **OK**. Then click **OK** to close the **Select optional Components** dialog box.
5. Click the **Data Source** tab, and then verify that the **Deploy this boot image from the PXE-enabled Distribution Point** check box is selected.
6. In the **Boot Image (x86) Properties** dialog box, click **OK**.
7. In the **Configuration Manager** dialog box, click **Yes**.
8. In the **Update Distribution Points Wizard**, on the **Summary** page, click **Next**. Wait for completion and then on the **Completion** page, click **Close**.
9. In the navigation pane, click **Boot Images**, right-click **Boot image (x64)**, and then click **Properties**.
10. Click the **Customization** tab, and then select the **Enable command support (testing only)** check box.
11. Click the **Optional Components** tab, and in the **Components** section, click **new** (the sun symbol).
12. In the **Select optional components** window, select **Windows PowerShell (WinPE-PowerShell)**, and when prompted, click **OK**. Then click **OK** to close the **Select optional Components** dialog box.
13. Click the **Data Source** tab, and then verify that the **Deploy this boot image from the PXE-enabled Distribution Point** check box is selected.
14. Click the **Drivers** tab, and then click **New** (the sun icon).
15. In the **Select a driver** dialog box, clear the **Hide drivers that are not digitally signed** option, select **Microsoft Hyper-V Network Adapter**, and then click **OK**.
16. In the **Boot Image (x64) Properties** dialog box, click **OK**.
17. In the **Configuration Manager** dialog box, click **Yes**.
18. In the **Update Distribution Points Wizard**, on the **Summary** page, click **Next**, and then on the **Completion** page, click **Close**.

▶ Task 4: Distribute boot images

1. Click **Boot image (x64)**, hold down the Ctrl key, click **Boot image (x86)**, right-click **Boot image (x64)**, and click **Distribute Content**.
2. In the **Distribute Content Wizard**, on the **General** page, click **Next**.
3. On the **Content Destination** page, click **Add**, and then click **Distribution Point**.
4. In the **Add Distribution Points** dialog box, select **LON-CFG.ADATUM.COM**, and then click **OK**.
5. On the **Content Destination** page, click **Next**.
6. On the **Summary** page, click **Next**, and then on the **Completion** page, click **Close**.
7. Right-click one of the packages, and then click **Refresh**. Perform this step for the other package. Repeat this step periodically until both packages show a **Content Status** of **Success: 1**. This will be indicated by a full green circle and might take several minutes.

▶ Task 5: Prepare for the next lab

- Leave all the virtual machines running for use in the next lab.

Lab B: Deploying operating system images for bare-metal installations

- Exercise 1: Preparing the operating system image
- Exercise 2: Creating a task sequence to deploy an image
- Exercise 3: Deploying an image

Logon Information	
Virtual machines:	**20703-1A-LON-DC1-B** **20703-1A-LON-CFG-B** **20703-1A-LON-IMG**
User name:	**Adatum\Administrator**
Password:	**Pa55w.rd**

Estimated Time: 60 minutes

Lab: Deploying operating system images for bare-metal installations
Scenario
The Image Engineering team has created a new reference image. You need to use Configuration Manager to deploy this new image to several newly purchased desktop computers.

Exercise 1: Preparing the operating system image

▶ Task 1: Import the reference image

1. On LON-CFG, in the Configuration Manager console, click the **Software Library** workspace, expand **Operating Systems**, and then click **Operating System Images**.
2. On the ribbon, in the **Create** group, click **Add Operating System Image**.
3. In the **Add Operating System Image Wizard**, on the **Data Source** page, in the **Path** box, type **\\LON-CFG\e$\Capture\Win10EntX64Eval.wim**, and then click **Next**.
4. On the **General** page, in the **Name** field, type **Windows 10 Enterprise X64 Eval**, and then click **Next**.
5. On the **Summary** page, click **Next**, and then on the **Completion** page, click **Close**.

▶ Task 2: Distribute the image to the LON-CFG Distribution Point

1. Right-click the **Windows 10 Enterprise X64 Eval** image, and select **Distribute Content**.
2. In the **Distribute Content Wizard**, on the **General** page, click **Next**.
3. On the **Content Destination** page, click **Add**, and then select **Distribution Point**.
4. In the **Add Distribution Points** dialog box, select the **LON-CFG.ADATUM.COM** check box, and then click **OK**.
5. On the **Content Destination** page, click **Next**.
6. On the **Summary** page, click **Next**, and then on the **Completion** page, click **Close**.

7. Right-click the **Windows 10 Enterprise X64 Eval** image and then click **Refresh**. Repeat periodically until the **Content Status** shows **Success: 1**. This will be indicated by a full green circle and should take around 5 minutes.

▶ Task 3: Import a computer object

1. In the **Hyper-V Manager** on your host computer, right-click the **20703-1A-LON-IMG** virtual machine and select **Start**.
2. Wait 5 seconds, right-click the **20703-1A-LON-IMG** virtual machine again and select **Turn Off**. If prompted by the **Turn Off Machine** dialog box, click **Turn Off**.

Note: You need to start the LON-IMG virtual machine in order to assign a MAC address to it.

3. In the details pane for the **20703-1A-LON-IMG** virtual machine, click the **Networking** tab, and in the Adapter column, find the MAC address. You may need to expand the **Adapter** Column to see the MAC address fully. Write down the MAC address.
4. On **LON-CFG**, open the Configuration Manager console.
5. Click the **Assets and Compliance** workspace, right-click the **Devices** node, and then select **Import Computer Information**.
6. On the **Select Source** page of the **Import Computer Information Wizard**, select **Import single computer**, and then click **Next**.
7. On the **Single Computer** page, enter the following information, and then click **Next**:
   - Computer Name: **LON-IMG**
   - MAC address: <*The MAC address you wrote down*>
8. On the **Data Preview** page, verify the name and MAC address, and then click **Next**.
9. On the **Choose Target Collection** page, select **Add computers to the following collection**, and then click **Browse**.
10. In the **Select Collection** window, select the **Adatum production image** collection, and then click **OK**.
11. On the **Choose Target Collection** page, click **Next**.
12. On the **Summary** page, verify your selections, and then click **Next**.
13. On the **Confirmation** page, click **Close**.
14. Click the **Device Collections** node, right-click the **All Systems** collection, and then select **Update Membership**. When prompted, click **Yes**.
15. Right-click the **Adatum production image** collection, and select **Update Membership**. When prompted, click **Yes**.
16. Click the **Adatum production image** collection, and then after 10 seconds, press F5.
17. When the Member Count column changes to 1, right-click the **Adatum production image** collection, and then select **Show Members**. You should now see the computer you have added.

Exercise 2: Creating a task sequence to deploy an image

▶ Task 1: Create a task sequence to install an existing image

1. On LON-CFG, in the Configuration Manager console, click the **Software Library** workspace, and then expand **Operating Systems.**
2. Right-click **Task Sequences**, and select **Create Task Sequence**.
3. In the **Create Task Sequence Wizard**, on the **Create New Task Sequence** page, click the **Install an existing image package** option, and then click **Next**.
4. On the **Task Sequence Information** page, in the **Task sequence name** box, type **Deploy Windows 10 Enterprise X64 Eval**, and then click **Browse**.
5. In the **Select a Boot Image** dialog box, click **Boot image (x64) 10.0.15063.0 en-US**, and then click **OK**.
6. On the **Task Sequence Information** page, click **Next**.
7. On the **Install Windows** page, click **Browse**.
8. In the **Select an Operating System Image** dialog box, click **Windows 10 Enterprise X64 Eval en-US**, and then click **OK**.
9. Clear the check mark next to **Configure task sequence for use with BitLocker**.

10. Select the **Enable the account and specify the local administrator password** option, in the **Password** box, type **Pa55w.rd**, in the **Confirm password** box, type **Pa55w.rd**, and then click **Next**.
11. On the **Configure Network** page, select the **Join a domain** option.
12. In the area next to **Domain**, select **Browse**, click **Adatum.com**, and then click **OK**.
13. In the area next to **Domain OU**, click **Browse**, select **London Clients**, and then click **OK**.
14. Click **Set**.
15. In the **Windows User Account** dialog box, in the **User name** box, type **Adatum\Administrator**, in the **Password** box, type **Pa55w.rd**, in the **Confirm password** box, type **Pa55w.rd**, and then click **OK**.
16. On the **Configure Network** page, click **Next**.
17. On the **Install Configuration Manager** page, click **Next**.
18. On the **State Migration** page, clear all check marks and then click **Next**.
19. On the **Include Updates** page, click **Next**.
20. On the **Install Applications** page, click **Next**.
21. On the **Summary** page, click **Next**.
22. On the **Completion** page, click **Close**.

▶ Task 2: Edit a task sequence

1. Right-click the **Deploy Windows 10 Enterprise X64 Eval** task sequence, and click **Edit**.
2. Select the **Apply Windows Settings** step.
3. In the **User name** field, type **A. Datum IT Services**, and in the **Organization name** field, type **A. Datum**.
4. In the **Deploy Windows 10 Enterprise X64 Eval Task Sequence Editor** window, click **OK**.

Exercise 3: Deploying an image

▶ Task 1: Deploy an image installation task sequence by using PXE

1. Right-click the **Deploy Windows 10 Enterprise X64 Eval** task sequence, and then click **Deploy**.
2. In the **Deploy Software Wizard**, on the **General** page, in the area next to **Collection**, click **Browse**. When prompted, click **OK**.
3. In the **Select Collection** dialog box, select **Adatum production image**, and then click **OK**.
4. On the **General** page, click **Next**.
5. On the **Deployment Settings** page, next to **Purpose**, verify that **Available** is selected, and under **Make Available to the following**, select **Only media and PXE**, and then click **Next**.
6. On the **Scheduling** page, click **Next**.
7. On the **User Experience** page, click **Next**.
8. On the **Alerts** page, click **Next**.
9. On the **Distribution Points** page, click **Next**.
10. On the **Summary** page, click **Next**.
11. On the **Completion** page, click **Close**.

▶ Task 2: Start 20703-1A-LON-IMG

1. On the host computer, in Hyper-V Manager, click **20703-1A-LON-IMG**, and in the Actions pane, click **Connect**.
2. In the Virtual Machine Connection window, select **Action**, and then click **Start**.
3. When **LON-IMG** boots, click inside the **Virtual Machine Connection** window. Wait until the message **Press F12 for network service boot** appears and then press F12. It will take approximately 10 seconds before you see the message.

   Note: Wait for the boot image to be staged and for the machine to boot into Windows PE.

4. In the **Welcome to the Task Sequence Wizard**, in the **password** field, type **Pa55w.rd**, and then click **Next**.
5. In the **Select a task sequence to run** window, verify that the task sequence you created earlier is displayed and selected, and then click **Next**.
6. Monitor the deployment. The task sequence will take between 15-25 minutes to complete depending on the performance of the Hyper-V host.

7. After the deployment is complete, click **Skip for now** on the **Let's connect you to a network** page.
8. Sign in to **LON-IMG** as **Adatum\Administrator** with the password **Pa55w.rd**, and then verify that the machine is named **LON-IMG**.

Note: It will take approximately 30 seconds before the desktop appears because a profile must be created for the user.

▶ Task 3: Prepare for the next module

When you finish the lab, revert the virtual machines to their initial state. To do this, complete the following steps:

1. On the host computer, start Hyper-V Manager.
2. In the **Virtual Machines** list, right-click **20703-1A-LON-DC1-B**, and then click **Revert**.
3. In the **Revert Virtual Machine** dialog box, click **Revert**.
4. Repeat steps 2 and 3 for 20703-1A-LON-CFG-B and 20703-1A-LON-IMG