

# Module 1

## Lab Answer Key: Installing, Upgrading, and Migrating to Windows

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## Lab: Installing and Configuring Windows 7

### ☐ Computers in this lab

Before you begin the lab, you must start the virtual machines. The virtual machines used at the start of this lab are:

- **AMA-DC1**
- **AMA-CL1**
- **AMA-VS1**

### ☐ Start the virtual machines

1. On the host computer, click the Oracle VM Virtualbox Manager.  
2. To connect to the virtual machine, Right-click the virtual machine name, and click **Settings**, in the **Actions** pane, click **Network**, under **Network** highlight the **Adapter 1**, check the **Enable Network Adapter** Attached to: **Internal Network** and click **Ok**.

3. In the **Virtual Machines** pane, click the virtual machine name. In the **Actions**

pane, under the virtual machine name, click **Start**.

### Exercise 1: Migrating Settings by Using Windows Easy Transfer

#### ☐ Task 1: Place Windows Easy Transfer on a network share

1. Log on to the **AMA-CL1** virtual machine as **AMAES\Administrator** with a password of **Pa\$\$w0rd**.
2. Click **Start**, point to **All Programs**, click **Accessories**, click **System Tools**, and then click **Windows Easy Transfer**.
3. In the Windows Easy Transfer window, click **Next**.
4. Click **An external hard disk or USB flash drive**.
5. Click **This is my new computer**.
6. Click **No**, because the files have not been saved from the source computer yet.
7. Click **I need to install it now**.
8. Click **External hard disk or shared network folder**.
9. In the **Folder** box, type **\\AMA-DC1\Data** and then click **OK**.

#### ☐ Task 2: Create a user profile for Arthur on AMA-VS1

1. Log on to the **AMA-VS1** virtual machine as **AMAES\Arthur** with a password of **Pa\$\$w0rd**.
2. On the desktop, right-click an open area, point to **New**, and click **Text Document**.
3. Type **Arthur's Tasks** and press ENTER. This renames the document.
4. Log off of AMA-VS1.

☐ **Task 3: Capture settings from AMA-VS1**

1. Log on to the **AMA-VS1** virtual machine as **AMAES\Administrator** with a password of **Pa\$\$w0rd**.
2. Click **Start**, and then in the **Start Search** box, type **\\AMA-DC1\Data\**, and then press ENTER.
3. Double-click the **Windows Easy Transfer** shortcut.
4. In the Windows Easy Transfer window, click **Next**.
5. Click **An external hard disk or USB flash drive**.
6. Click **This is my old computer**.
7. Clear all of the checkboxes except for **AMAES\Arthur** and then click **Next**.
8. In the **Password** and **Confirm Password** boxes, type **Pa\$\$w0rd** and then click **Save**.
9. In the Save your Easy Transfer file window, in the **File name** box, type **\\AMA-DC1\Data\ArthurFile** and then click **Save**.
10. Click **Next**.
11. Click **Next** and then click **Close**.
12. Log off of AMA-VS1.

☐ **Task 4: Import the configuration settings on AMA-CL1**

1. On **AMA-CL1**, in **Windows Easy Transfer**, click **Next**.
2. Click **Yes** to indicate that the settings from the old computer have been saved.
3. In the Open an Easy Transfer File window, in the **File name** box, type **\\AMA-DC1\Data\ArthurFile.MIG** and then click **Open**.
4. Type the password of **Pa\$\$w0rd** and then click **Next**.
5. Click **Transfer** to begin importing Arthur's files.
6. Wait until the transfer completes.
7. Click **Close**.
8. Log off of AMA-CL1.

☐ **Task 5: Verify the migration**

1. On **AMA-CL1**, log on as **AMAES\Arthur** with a password of **Pa\$\$w0rd**.
2. Notice that **Arthur's task** is on the desktop because of the migration.
3. Shut down AMA-CL1.

## **Exercise 2: Configuring a Reference Image**

☐ **Task 1: Configure a dynamic IP address to prepare a reference image for imaging**

1. Start and then log on to the **AMA-CL2** virtual machine as **AMAES\Administrator** with a password of **Pa\$\$w0rd**.
2. Click **Start** and click **Control Panel**.
3. Under **Network and Internet**, click **View network status and tasks**.
4. Click **Local Area Connection 1**.
5. In the Local Area Connection 3 Status window, click **Properties**.
6. In the Local Area Connection 3 Properties window, click **Internet Protocol Version 4 (TCP/IPv4)** and then click **Properties**.
7. Click **Obtain an IP address automatically**, click **Obtain DNS server address automatically**, and then click **OK**.
8. In the Local Area Connection 3 Properties window, click **Close**.
9. In the Local Area Connection 3 Status window, click **Close**.
10. Close Network and Sharing CENTER.

☐ **Task 2: Generalize a reference image with sysprep**

1. Click **Start** and then click **Computer**.
2. Browse to **C:\Windows\System32\sysprep** and then double-click

**sysprep.exe.**

3. In the **System Cleanup Action** box, click **ENTER System Out-of-Box Experience (OOBE)**.
4. Select the **Generalize** checkbox.
5. In the **Shutdown Options** box, click **Shutdown**.
6. Click **OK**. AMA-CL2 shuts down after several minutes.

#### ☐ **Task 3: Prepare the virtual machine for imaging**

1. If necessary, on your host computer, Open the Oracle VM VirtualBox Manager
2. Right-click **AMA-CL2** and click **Settings**.
3. In the left pane, click **Storage**.
4. In the right pane, in the **IDE Controller**, click the **Add CD/DVD Device** (single disk with + sign)
5. In the Virtualbox - Question, click **Choose disk** to browse the file.
6. Browse and click **winpe\_x86.iso**, and then click **Open**.

#### ☐ **Task 4: Copy the reference image to a share**

**Note:** Steps 1 and 2 must be performed quickly to ensure that you are able to boot from the virtual DVD rather than the hard disk. If the operating system starts to boot because you do not complete the steps quickly enough, then click the Reset button in the virtual machine window to try again. You may want to take a snapshot of the virtual machine before attempting to boot from the DVD.

1. In the virtual machine window for **AMA-CL2**, click the **Start** button in the toolbar.
2. Click in the virtual machine window, and press a key when prompted to press a key to boot from CD or DVD.
3. At the command prompt, type **ipconfig** and then press ENTER. Verify that an IP address in the 10.10.0.0 range is assigned. This confirms that Windows PE obtained an IP address from the DHCP server.
4. At the command prompt, type the following command and then press ENTER:  
**net use i: \\AMA-DC1\Data /user:AMAES\administrator Pa\$\$w0rd.**
5. At the command prompt, type **d:** and press ENTER. This is the original C: drive on the reference computer.
6. At the command prompt, type **dir** and then press ENTER.
7. At the command prompt, type **e:** and press ENTER. This is a drive created in memory by Windows PE.
8. At the command prompt, type **dir** and then press ENTER.
9. At the command prompt, type **imagex /capture d: i:\Reference.wim "Reference Image for Windows 7" /compress fast** and then press ENTER.

**Note:** While the image creation completes, begin working on Exercise 3.

### **Exercise 3: Deploying a Windows 7 Image**

#### ☐ **Task 1: Capture configuration settings with USMT**

1. Log on to the **AMA-VS1** virtual machine as **AMAES\Administrator** with a password of **Pa\$\$w0rd**.
2. Click **Start**, type **cmd**, and press ENTER.
3. At the command prompt, type **net use i: \\AMA-DC1\data** and then press ENTER.
4. At the command prompt, type **i:** and then press ENTER.
5. At the command prompt, type **cd \usmt\x86** and then press ENTER.
6. At the command prompt, type **md \usmtdata** and then press ENTER.
7. At the command prompt, type **scanstate i:\usmtdata** and then press ENTER.
8. After the capture is complete, shut down AMA-VS1.

#### ☐ **Task 2: Start Windows PE on the new computer**

1. On your host computer, open Oracle VM VirtualBox Manager

2. Right-click **AMA-CL3** and click **Settings**.
3. In the left pane, click **Storage**.
4. In the right pane, in the **IDE Controller**, click the **Add CD/DVD Device** (single disk with + sign)
5. Browse and click **winpe\_x86.iso**, and then click **Open**.
7. Right-click **AMA-CL3** and click **Start**.
8. At the command prompt, type **ipconfig** and then press ENTER. Verify that an IP address in the 10.10.0.0 range is assigned. This confirms that Windows PE obtained an IP address from the DHCP server.
10. At the command prompt, type the following command and then press ENTER:  
**net use i: \\AMA-DC1\data /user:AMAES\administrator Pa\$\$w0rd.**

☐ **Task 3: Partition the disk on the new computer**

1. On **AMA-CL3**, at the command prompt type **diskpart** and press ENTER.
2. Type **select disk 0** and then press ENTER.
3. Type **clean** and then press ENTER.
4. Type **create partition primary size=20000** and then press ENTER.
5. Type **select partition 1** and then press ENTER.
6. Type **format fs=ntfs label=Windows quick** and then press ENTER.
7. Type **assign letter=c** and then press ENTER.
8. Type **active** and then press ENTER.
9. Type **exit** and then press ENTER.

☐ **Task 4: Apply the image to the new computer**

1. On **AMA-CL3**, at the command prompt, type **d:** and then press ENTER.
2. At the command prompt, type **imagex /apply i:\reference.wim "Reference Image for Windows 7" c:** and then press ENTER.
3. After applying the image is complete, type **bcdboot c:\windows** and then press ENTER.

☐ **Task 5: Perform initial operating system configuration for the new computer**

1. Restart **AMA-CL3** by closing the command prompt. Do not start from CD or DVD.
2. If prompted, select **Start Windows normally** and press ENTER. The computer will restart before asking for any input.
3. In the **Set Up Windows** box, click **Next** to accept the default country, time and currency format, and keyboard layout.
4. In the **Type a user name** box, type **LocalAdmin**.
5. In the **Type a computer name** box, type **AMA-CL3** and then click **Next**.
6. In the **Type a password** and **Retype your password** boxes, type **Pa\$\$w0rd**.
7. In the **Type a password hint** box, type **Local Admin** and then click **Next**.
8. Clear the **Automatically activate Windows when I'm online** checkbox and then click **Next**.
9. Select the **I accept the license terms** checkbox and then click **Next**.
10. Click **Ask me later** to delay the implementation of Windows updates.
11. Click **Next** to accept the default settings for time zone and date.
12. Click **Work network** to select your computer's current location.
13. Click **Start**, right-click **Computer**, and click **Properties**.
14. Under **Computer name, domain, and workgroup settings**, click **Change settings**.
15. In the System Properties window, click **Change**.
16. In the Computer Name/Domain Changes window, click **Domain**, type **AMAES.com**, and then click **OK**.
17. Authenticate as **Administrator** with a password of **Pa\$\$w0rd**.
18. Click **OK** to close the welcome message.

19. Click **OK** to close the message about restarting.
20. In the System Properties window, click **Close**.
21. Click **Restart Now**.

□ **Task 6: Apply the captured setting to the new computer**

1. Log on to the **AMA-CL3** virtual machine as **AMAES\Administrator** with a password of **Pa\$\$w0rd**.
2. Click **Start**, type **cmd**, and press ENTER.
3. At the command prompt, type **net use i: \\AMA-DC1\data** and then press ENTER.
4. At the command prompt, type **i:** and then press ENTER.
5. At the command prompt, type **cd \usmt\x86** and then press ENTER.
6. At the command prompt, type **loadstate i:\usmtdata** and then press ENTER.
7. Close the command prompt.

□ **Task 7: Verify the application of user settings on AMA-CL3**

1. Click **Start**, right-click **Computer**, and then click **Properties**.
2. Click **Advanced system settings**.
3. In the **User Profiles** area, click **Settings**.
4. Read the list of user profiles and verify that several have been created, including one for **AMAES\Arthur**.
5. In the User Profiles window, click **Cancel**.
6. In the System Properties window, click **Cancel**.
7. Close the System window.