

## REVIEW LESSON

MTA Course: 10753 Windows Operating System Fundamentals

Lesson name Windows Operating System Fundamentals 2.3

Topic: Understand installation types (One 50-minute class period)

File name: 10753\_WindowsOS\_RL\_2.3

### Lesson Objective

**2.3:** Understand installation times. *This objective may include but is not limited to:* understanding removable media installations (DVD, ZTI, LTI, and USB), cloud and network installations, and product identification keys.

### Preparation Details

#### Prerequisite student experiences and knowledge:

This MTA Certification Exam Review lesson is written for students who have learned about Windows fundamentals. Students who do not have the prerequisite knowledge and experiences cited in the objective will find additional learning opportunities using resources such as those listed in the “Resources” section at the end of this review lesson.

#### Instructor preparation activities:

- Make copies available of the Student Activity document 10753\_WindowsOS\_SA\_2.3.
- The instructor should have access to a system running Windows 7 Professional or a virtual machine with Windows 7 Professional installed for the purposes of demonstrating how to configure Control Panel options and desktop settings.

#### Resources, software, and additional files needed for this lesson:

- Microsoft Deployment Toolkit 2010 (x64 or x86)
- Windows Automated Installation Kit (x64 or x86)
- 10753\_WindowsOS\_RL\_2.3
- 10753\_WindowsOS\_SA\_2.3

- 10753\_WindowsOS\_SA\_2.3\_key
- 10753\_WindowsOS\_PPT\_2.3

## **Teaching Guide**

### **Essential Vocabulary**

**answer file**—a file used to configure Windows settings during installation. The answer file contains all the settings that are required for an unattended installation. During installation, you will not be prompted with user interface pages.

**cloud computing**—accessing services and applications online by subscribing to various IT services, such as email, CRM, or Web conferencing provided by a third party and delivered over the Internet.

**High Touch Installation (HTI)**—a manual deployment in which Windows is installed on each client using the retail installation DVD and manually configured on each computer. An organization can save time and money by automating portions of the installation process.

**Lite Touch Installation (LTI)**—this strategy requires limited interaction during deployment. Interaction occurs at the beginning of the installation, but the remainder of the process is automated. This strategy is recommended if your organization has a dedicated IT staff and it has a managed network with 200–500 clients. Prior deployment experience is not required, but it is beneficial when using this strategy.

**System Preparation (Sysprep)**—a utility that prepares an installation of Windows for duplication, auditing, and customer delivery. Duplication, also called *imaging*, enables you to capture a customized Windows image that you can reuse throughout an organization.

**Windows Automated Installation Kit (WAIK)**—a set of tools and documentation that support the configuration and deployment of Windows. You can automate Windows installations, capture Windows images with ImageX, configure and modify images using Deployment Imaging Servicing and Management (DISM), create Windows PE images, and migrate user profiles and data with the User State Migration Tool (USMT).

**Zero Touch Installation (ZTI)**—this strategy requires no interaction during deployment. The process is fully automated through Configuration Manager 2007 R2. This strategy is recommended if your IT organization has experts in deployment, networking, and System Center Configuration Manager R2 products, and it has a managed network with 500 or more clients.

## **Lesson Sequence**

### **Activating prior knowledge/lesson staging (5 minutes):**

1. What can be created to automate a Windows 7 installation? (answer file)
2. What types of media can be used to install Windows 7? (USB, DVD, Network)
3. What tool can be used to strip an existing Windows 7 installation of all unique identifiers? (Sysprep.exe)

### **Lesson activity (40 minutes):**

1. Teacher instruction (20 minutes; see the “Suggested best practices” section below regarding this presentation).
2. Use the included Microsoft PowerPoint presentation to review understanding installation types.
3. Guided practice (20 minutes): Direct students to complete 10753\_WindowsOS\_SA\_2.3.

### **Assessment/lesson reflection (5 minutes):**

1. In the same notes that they created for the “Activating prior knowledge/lesson staging” section at the beginning of the class, direct the students to check their initial answers and make any changes if necessary.
2. Instruct the students to submit any questions they have or any topics with which they would like more assistance.
3. After class, look through the student responses and follow up with any students requiring additional help.

### **Resources:**

- **Microsoft: TechNet: Automated Installation of Windows 7: Overview**  
[http://technet.microsoft.com/en-us/library/ee523216\(WS.10\).aspx](http://technet.microsoft.com/en-us/library/ee523216(WS.10).aspx)
- **Microsoft: TechNet: Lite-Touch, High-Volume Deployment**  
[http://technet.microsoft.com/en-us/library/dd919179\(WS.10\).aspx](http://technet.microsoft.com/en-us/library/dd919179(WS.10).aspx)
- **Microsoft: TechNet: Zero-Touch, High-Volume Deployment**  
[http://technet.microsoft.com/en-us/library/dd919178\(WS.10\).aspx](http://technet.microsoft.com/en-us/library/dd919178(WS.10).aspx)
- **Microsoft: TechNet: Choosing a Deployment Strategy**  
[http://technet.microsoft.com/en-us/library/dd919185\(WS.10\).aspx](http://technet.microsoft.com/en-us/library/dd919185(WS.10).aspx)

- **Microsoft: TechNet: Explaining cloud computing**  
*<http://blogs.technet.com/b/smallbusiness/archive/2011/03/14/explaining-cloud-computing.aspx>*
- **Microsoft: TechNet: How Do I: Create Unattended Answer Files Using Windows System Image Manager**  
*<http://technet.microsoft.com/en-us/windows/dd179859.aspx>*
- **Microsoft: Microsoft Deployment Toolkit**  
*<http://www.microsoft.com/downloads/en/details.aspx?FamilyID=3bd8561f-77ac-4400-a0c1-fe871c461a89&displayLang=en>*
- **Microsoft: Windows Automated Installation Kit**  
*<http://www.microsoft.com/downloads/en/details.aspx?FamilyID=696DD665-9F76-4177-A811-39C26D3B3B34>*
- **Microsoft: Sysprep**  
*[http://technet.microsoft.com/en-us/library/dd799240\(WS.10\).aspx#BenefitsofSysprep](http://technet.microsoft.com/en-us/library/dd799240(WS.10).aspx#BenefitsofSysprep)*

**Suggested best practices:**

- It is not possible for the students to perform a full installation due to time constraints. However, the instructor may demonstrate an automated process using a basic answer file or HTI. The student activity is simply exploratory, as it guides the student through finding different utilities and tools used in the deployment process.