

REVIEW LESSON

MTA Course: 10753 Windows Operating System Fundamentals

Lesson name: Windows Operating System Fundamentals 1.4-1.5

Topic: Understand mobility, remote management, and assistance (One 50-minute class period)

File name: 10753_WindowsOS_RL_1.4-1.5

Lesson Objectives

1.4: Understand mobility. *This objective may include but is not limited to:* understanding Sync Center, Windows Mobility Center, and Remote Desktop

1.5: Understand remote management and assistance. *This objective may include but is not limited to:* understanding MMC, and Windows PowerShell

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 of Student Activity: 10753_WindowsOS_SA_1.4-1.5.
- The instructor should have access to an existing system running Windows 7 Professional or a virtual machine with Windows 7 Professional installed for the purposes of demonstrating how to configure mobility and remote management and assistance.

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

- 10753_WindowsOS_RL_1.4-1.5
- 10753_WindowsOS_SA_1.4-1.5
- 10753_WindowsOS_SA_1.4-1.5_key
- 10753_WindowsOS_PPT_1.4-1.5

Teaching Guide**Essential Vocabulary**

Network Level Authentication—an authentication method that completes user authentication before the user establishes a full Remote Desktop connection and the logon screen appears. This can help protect the remote computer from hackers and malicious software.

Remote Desktop—a technology that allows the user to sit at a computer (sometimes called the *client*) and connect to a remote computer (sometimes called the *host*) in a different location.

Sync Center—a feature of Windows that allows you to keep information in sync between your computer and files stored in folders on network servers and certain mobile devices that are compatible with Sync Center.

Windows Mobility Center—displays the most commonly used settings, such as brightness, volume, battery status, and wireless network status. Different tiles are displayed depending on your system, and some tiles are added by your laptop manufacturer.

Windows PowerShell—a task-based command-line shell and scripting language designed especially for system administration. Built on the Microsoft .NET Framework, Windows PowerShell helps IT professionals and power users control and automate the administration of Windows and applications that run on Windows.

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

Direct students to answer each question in their notes.

1. What Windows application can be used to view the desktop of a remote computer? (Remote Desktop)

2. List three items you might see in Windows Mobility Center. (Brightness, volume, battery status, wireless network, screen rotation, external display, Sync Center, or presentation settings)
3. What is the difference between Remote Desktop and Remote Assistance? (Remote Desktop creates a separate remote session on the remote computer. Remote Assistance allows two users to share a session.)

Lesson activity (40 minutes):

1. Teacher instruction (20 minutes; please see the “Suggested best practices” section below regarding this presentation).
2. Use the included Microsoft PowerPoint presentation to review mobility, remote management, and assistance.
3. Guided practice (20 minutes).
 - a. Instruct students to complete 10753_WindowsOS_SA_1.4-1.5.

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 students to check their initial answers and make any changes if necessary.
2. Instruct students to write and submit any questions they have or any topics about which they would like more assistance.
3. After class, look through the student responses and follow up with any student requiring additional help.

Resources:

- **Microsoft: Sync Center: frequently asked questions**
<http://windows.microsoft.com/en-US/windows-vista/Sync-Center-frequently-asked-questions>
- **Microsoft: Using Windows Mobility Center**
<http://windows.microsoft.com/en-US/windows7/Using-Windows-Mobility-Center>
- **Microsoft: Windows PowerShell**
<http://technet.microsoft.com/en-us/library/bb978526.aspx>
- **Microsoft: A Sneak Peek at Remote Management in Windows PowerShell 2.0**
<http://technet.microsoft.com/en-us/magazine/2008.08.windowspowershell.aspx>

- **Microsoft: Scripting with Windows PowerShell**
<http://technet.microsoft.com/en-us/scriptcenter/dd742419>

Additional activities (homework or enrichment):

- Encourage the students to practice setting up the Remote Desktop at home. They should be aware of the security risks involved with opening services to the Internet. If they are using a router at home, they must configure their router to allow traffic to port 3389 to forward to their Remote Desktop-enabled workstation. They can also configure this for use within their local area network.

Suggested best practices:

- It is helpful to demonstrate the content to complement the screenshots in the presentation. The demonstrations should be consistent with the screenshots and the student activities. Demonstrate Remote Desktop and discuss how this type of technology is widely used for remote support, as well as using it on the infrastructure (Windows Server Remote Desktop Session Host) as a solution for Remote Applications. These tools help save costs both in hardware and support, which include travel time and expense. It is recommended that remote support be transmitted through an encrypted virtual private network tunnel.

Additional notes to the teacher:

- Be sure that the students' authentication accounts are members of the Administrators group for the Remote Desktop services section in the Student Activity. Otherwise, they will have to add their user accounts to the Remote Desktop Users group.