

## REVIEW LESSON

MTA Course: 10753 Windows Operating System Fundamentals

Lesson name: Windows Operating System Fundamentals 4.2

Topic: Understand file and print sharing (One 50-minute class period)

File name: 10753\_WindowsOS\_RL\_4.2

### Lesson Objective

**4.2:** Understand file and print sharing. *This objective may include but is not limited to:* understanding NTFS and share permissions, HomeGroup, print drivers, and effective permissions; creating public, basic, and advanced shares; mapping drives.

### Preparation Details

#### Prerequisite student experiences and knowledge:

This MTA Certification Exam Review lesson is written for students who have learned about Microsoft 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\_4.2.
- The instructor should have access to an existing system running Microsoft Windows 7 Professional or a virtual machine with Windows 7 Professional for the purpose of demonstrating how to create file and print shares.
- The instructor should have access to a locally attached printer for demonstration purposes.

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

- 10753\_WindowsOS\_SA\_4.2
- 10753\_WindowsOS\_SA\_4.2\_key
- 10753\_WindowsOS\_PPT\_4.2

## **Teaching Guide**

### **Essential Vocabulary**

**Access Control Entry (ACE)**—the task of assigning permissions to a user or group represented in the system.

**Access Control List (ACL)**—a list of permission entries in a security descriptor.

**explicit permissions**—permissions set by default on non-child objects when the object is created, or by user action on non-child, parent, or child objects.

**homegroup**—a group of computers on a home network that can share files and printers.

**inherited permissions**—permissions propagated to an object from a parent object.

**share**—to make files and folders (directories) accessible to other users over a network.

**permission**—a setting that determines the type of access a particular user has to the resource (file, folder, or share) that is being accessed. Permissions are assigned via the resource's property sheet, and they are granted by the system administrator, owner of the resource, or other authorized person.

## **Lesson Sequence**

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

Direct students to answer each question in their notes.

1. What advanced share permission allows the user to grant access to a resource to other users? (Full Control allows a user to modify the share access control list.)
2. What permissions are effective when accessing a folder through a share? (When accessing a shared resource, the most restrictive permission of the NTFS and share permissions applies.)
3. What service allows file and printer sharing? (File and Printer Sharing for Microsoft Networks.)

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

1. Teacher instruction (20 minutes; see the “Suggested best practices” section regarding this presentation)
  - a. Use the included Microsoft PowerPoint presentation to review file and print sharing.

2. Guided practice (20 minutes)
  - a. Direct students to complete the Student Activity document 10753\_WindowsOS\_SA\_4.2.

**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 submit questions they have or topics about which they would like more assistance.
3. After class, look through students’ responses and follow up with any students requiring additional help.

**Resources:**

- **Microsoft: Windows 7 features: HomeGroup**  
*<http://windows.microsoft.com/en-us/windows7/products/features/homegroup>*
- **Microsoft: Windows 7 features: Homegroup from start to finish**  
*<http://windows.microsoft.com/en-US/windows7/help/homegroup-from-start-to-finish>*
- **Microsoft: Windows 7: File sharing essentials**  
*<http://windows.microsoft.com/en-us/windows7/File-sharing-essentials>*
- **Microsoft: Windows 7: Share files with someone**  
*<http://windows.microsoft.com/en-US/windows7/Share-files-with-someone>*
- **Microsoft: What is the difference between a domain, a workgroup and a homegroup**  
*<http://windows.microsoft.com/en-US/windows7/What-is-the-difference-between-a-domain-a-workgroup-and-a-homegroup>*
- **Microsoft TechNet: Windows 7 HomeGroup**  
*[http://technet.microsoft.com/en-us/library/ee449421\(WS.10\).aspx](http://technet.microsoft.com/en-us/library/ee449421(WS.10).aspx)*
- **Microsoft TechNet: How IT works: NTFS Permissions**  
*<http://technet.microsoft.com/en-us/magazine/2005.11.howitworksntfs.aspx>*
- **Microsoft TechNet: Managing Permissions for Shared Folders**  
*<http://technet.microsoft.com/en-us/library/cc753731.aspx>*

**Suggested best practices:**

- If time permits, direct the students to practice command-line exercises mapping virtual drives to shared folders using the `net use` command as follows:

```
net use <drive letter>: \\computername\sharename\folder /persistent:no
```

**Additional notes to the teacher:**

- The Student Activity document 10753\_WindowsOS\_SA\_4.2 instructs students to create folders and to share those folders. Due to time constraints, students will log in as a standard administrative user with a generic password, which will allow them access to their partner's server without providing credentials. If time allows, it would be beneficial for students to follow along as the instructor demonstrates creating a test user and group.