

REVIEW LESSON

MTA Course: 98-367 Security Fundamentals
Lesson name: Understanding Security Software
Topic: Understand client protection
(One 50-minute class period)
File name: SecurityFund_RL_4.1

Lesson Objective

4.1: Understand client protection. *This objective may include, but is not limited to:* anti-virus, User Account Control (UAC), keeping client operating system and software updated, encrypting offline folders, software restriction policies.

Preparation Details

Instructor preparation activities

- Make copies of Student Activity SecurityFund_SA_4.1

Resources, software, and additional files needed for this lesson

- SecurityFund_PPT_4.1
- SecurityFund_SA_4.1
- SecurityFund_SA_4.1_Key
- Windows® XP or Windows 7
- Windows Server® 2008 R2

Teaching Guide

Essential Vocabulary

anti-virus—a computer program that scans a computer's memory and mass storage to identify, isolate, and eliminate viruses, as well as examine incoming files for viruses as the computer receives them.

user account control (UAC)—helps prevent malicious programs (also called malware) from damaging a computer and helps organizations deploy a better-managed desktop. With UAC, applications and tasks always run in the security context of a non-administrator account, unless an administrator specifically authorizes administrator-level access to the system. UAC can block the automatic installation of unauthorized applications and prevent inadvertent changes to system settings.

Lesson Sequence

Activating prior knowledge/lesson staging (Anticipatory Set: 5 minutes)

1. Student prompt (see PowerPoint® slide 3):
 - Recall when your computer or the computer of someone you know was hit by a virus.
 - On a sheet of paper, describe the situation, how it might have infected the computer, and how it was resolved.
 - Create a list of reasons why it is important to keep anti-virus software up to date? What can happen if it is out-of-date?
2. As time permits, call on a few students to report to the group with their findings.

Lesson activity (35 minutes)

1. Teacher Instruction
 - Use the included PowerPoint slides 4-8 to review viruses and different levels of User Account Controls.
 - At slide 8, ask the students research the UAC elevation prompts. (Use the SecurityFund_SA_4.1)
 - Small-group discussions or a “think-pair-share” approach may be beneficial.
 - Show the PowerPoint slide and give the students 5 minutes to process the question and come up with answers.
 - Then give the students 2 minutes to discuss answers with a partner.
 - Finally, have each pair of students share their answers with the whole group.
 - Repeat for each additional review question.
 - Students discuss the Four Rules Identify Software (slide 13)
 - Identify the four rules and decide which application types are appropriate for different situations.
 - If time allows, you may review all or part of the research, discussing student responses to the topic.

Assessment/lesson reflection (10 minutes)

1. On the same paper they used for the Anticipatory Set, ask students to summarize the process to encrypt a file or folder in Windows XP or Windows 7. Have them also encrypt a file or folder in Windows Server 2008 R2. Summarize the differences between the two processes (slide 16).
 - Allow ample time for students to write their summaries.
 - If time allows, pick a few students to read their summaries.
2. At the bottom of the page, tell students to write 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.

Microsoft® resources and Web links

- **Microsoft Security Essentials**
http://www.microsoft.com/security_essentials/market.aspx
- **Microsoft TechNet: Automatic Updates**
<http://technet.microsoft.com/en-us/library/bb457141.aspx>
- **Microsoft TechNet: Automatic Updates Policy Settings**
<http://technet.microsoft.com/en-us/library/bb457141.aspx>
- **Microsoft TechNet: How to Encrypt Offline Files**
<http://technet.microsoft.com/en-us/library/bb456987.aspx>
- **Microsoft Windows: What is User Account Control?**
<http://windows.microsoft.com/en-ZA/windows7/what-is-user-account-control>