

REVIEW LESSON

MTA Course: 98-365 Windows Server® Administration Fundamentals

Lesson name: Understanding Server Maintenance 6.4

Topic: Understand troubleshooting methodology (One 50-minute class period)

File name: WinServerFund_RL_6.4

Lesson Objective

6.4: Understand troubleshooting methodology. *This objective may include but is not limited to:* processes; procedures; best practices; systematic vs. specific approach; perfmon; Event Viewer; Resource Monitor; Information Technology Infrastructure Library; central logging; event filtering; default logs

Preparation Details

Prerequisite student experiences and knowledge

This MTA Certification Exam Review lesson is written for students who have learned about Windows® Server Administration 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 Microsoft® resources and Web links at the end of this review lesson.

Students should have a fundamental understanding of event viewer and performance monitor.

Instructor preparation activities

- Make copies of Student Activity WinServerFund_SA_6.4
- If available, have one virtual machine:
 - Windows Server 2008® R2
 - Internet access

Resources, software, and additional files needed for this lesson

- WinServerFund_PPT_6.4
- WinServerFund_SA_6.4
- WinServerFund_SA_6.4_Key

Teaching Guide**Essential Vocabulary**

Event Viewer—maintains logs about program, security, and system events on your computer.

event—any significant occurrence in the system or in a program that requires users to be notified, or an entry added to a log.

Information Technology Infrastructure Library (ITIL)—defines the organizational structure and skill requirements of an information technology organization and a set of standard operational management procedures and practices to allow the organization to manage an IT operation and associated infrastructure.

Resource Monitor—a system tool that allows you to view information about the use of hardware (CPU, memory, disk, and network) and software (file handles and modules) resources in real time. You can filter the results according to specific processes or services that you want to monitor.

Lesson Sequence**Activating prior knowledge/lesson staging (Anticipatory Set: 10 minutes)**

1. Student prompt (see PowerPoint® slide 3): On a sheet of paper, identify where the event would be recorded if the Workstation service failed to start.
2. Give students a few minutes to respond, allowing them to work until they have finished.
3. As time permits, call on a few students to report to the group with their responses.

Lesson activity (40 minutes)

1. Teacher Instruction (20 minutes)
 - Use the included PowerPoint presentation to review troubleshooting methodology.
 - At the end of the presentation, ask the students to answer the Review Questions. Small-group discussions or a “think-pair-share” approach may be beneficial.
 - Show the question and give the students 1 minute 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.
2. Guided Practice (20 minutes; please see the “Additional notes to the instructor” section regarding this assignment)
 - Students complete WinServerFund_SA_6.4, creating custom filters in Event Viewer, researching event ids, and using Resource Monitor.
 - If time allows, you may review all or part of the worksheet.

Assessment/lesson reflection (10 minutes)

1. At the bottom of the page, students should list the tools they have available to troubleshoot computer problems. Ask students to write any questions they have or any topics about which they would like more assistance
2. After class, look through the student responses and follow up with any student requiring additional help.

Microsoft resources and Web links

- **Information Technology Infrastructure Library (ITIL)**
<http://itlibrary.org>
- **Microsoft: Event Viewer Overview**
<http://technet.microsoft.com/en-us/library/bb457163.aspx>
- **Microsoft TechNet: Event Viewer**
<http://technet.microsoft.com/en-us/library/cc766042.aspx>
- **Microsoft TechNet: Resource Availability Troubleshooting Getting Started Guide**
[http://technet.microsoft.com/en-us/library/dd883276\(WS.10\).aspx](http://technet.microsoft.com/en-us/library/dd883276(WS.10).aspx)

Suggested best practices

- Event Viewer should be an IT professional's first resource when troubleshooting a specific problem. Students should be encouraged through repetition to always review their event logs before asking for help.
- Discuss the troubleshooting process in further depth and how there is always a logical format. As with any profession, the more problems you fix, the shorter the learning curve is for the next problem. Documenting the solutions will further help with learning how to correct repetitive issues.

Additional notes to the instructor

- The worksheet asks students to filter for critical and error events. They are to write the results of a particular event and research for a solution. They may have events that have "self-corrected" and do not need any further changes. The events on their systems may vary.