

## REVIEW LESSON

MTA Course: 98-365 Windows Server® Administration Fundamentals

Lesson name: Understanding Server Performance Management 5.3

Topic: Understand logs and alerts

(One 50-minute class period)

File name: WinServerFund\_RL\_5.3

### Lesson Objective

**5.3:** Understand logs and alerts. *This objective may include but is not limited to:* purpose of performance logs and alerts.

### 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 created performance logs using Performance Monitor.

#### Instructor preparation activities

- Make copies of Student Activity WinServerFund\_SA\_5.3
- If available, have one virtual machine:
  - Windows Server 2008® R2

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

- WinServerFund\_PPT\_5.3
- WinServerFund\_SA\_5.3

## **Teaching Guide**

### **Essential Vocabulary**

**alert**—an action such as sending a network message, running a program, or starting a log. The alert is triggered when a determined counter value counter value meets a specified requirement.

**data collector set**—organizes multiple data collection points into a single component that can be used to review or log performance.

**event trace data**—details collected from trace providers, which are components of the operating system or of individual applications that report actions or events. Output from multiple trace providers can be combined in a trace session.

**objects**—specific resources in Performance Monitor that can be measured.

**performance counters**—measurements of system state or activity. They can be included in the operating system or can be part of individual applications. Windows Performance Monitor requests the current value of performance counters at specified time intervals.

## **Lesson Sequence**

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

1. Student prompt (see PowerPoint® slide 3): On a sheet of paper, identify a benefit of performance and reliability monitoring.
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 slideshow to review performance logs and alerts.
  - At the end of the slideshow, 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\_5.3, creating and comparing performance logs.
  - If time allows, you may review all or part of the worksheet.

#### **Assessment/lesson reflection (10 minutes)**

1. At the bottom of WinServerFund\_SA\_5.3, ask students to summarize what they did in the activity as well as why it’s important to utilize these tools.
2. After class, look through the student responses and follow up with any student requiring additional help.

#### **Microsoft resources and Web links**

- **Microsoft TechNet: Create a Data Collector Set to Monitor Performance Counters**  
*[http://technet.microsoft.com/en-us/library/cc722414.aspx#BKMK\\_alert](http://technet.microsoft.com/en-us/library/cc722414.aspx#BKMK_alert)*
- **Microsoft TechNet: Creating Data Collector Sets**  
*<http://technet.microsoft.com/en-us/library/cc749337.aspx>*
- **Microsoft TechNet: Performance and Reliability Monitoring Step-by-Step Guide for Windows Server 2008**  
*[http://technet.microsoft.com/en-us/library/cc771692\(WS.10\).aspx](http://technet.microsoft.com/en-us/library/cc771692(WS.10).aspx)*
- **Microsoft TechNet: Performance Logs and Alerts overview**  
*[http://technet.microsoft.com/en-us/library/cc738564\(WS.10\).aspx](http://technet.microsoft.com/en-us/library/cc738564(WS.10).aspx)*

#### **Suggested best practices**

- Demonstrating the steps of how to create the performance logs and showing where the logs are located will reinforce the steps for the student activity.

#### **Additional notes to the instructor**

- The comparison portion of the lab is taken from the Help and Support section in Windows Server 2008 R2 under **Compare Multiple Log Files in Performance Monitor**. This is a great opportunity to demonstrate to the students the help and support option for Windows Server 2008 R2 and show that there are relevant help topics and processes available.