

EIGRP – Back to the Future (Instructor Version)

Instructor Note: Red font color or Gray highlights indicate text that appears in the instructor copy only.

Objectives

Implement advanced EIGRP features to enhance operation in a small- to medium-sized business network.

EIGRP is revisited from previous content to provide the basis needed for this chapter's content.

Scenario

Many of these bulleted concepts were mentioned in the previous chapter's curriculum content and will be the focus of this chapter:

- Auto-summarization
- Load balancing
- Default routes
- Hold-down timers
- Authentication

With a partner, write 10 EIGRP review questions based on the previous chapter's curriculum content. Three of the questions must focus on the bulleted items above. Ideally, Multiple Choice, True/False, or Fill in the Blank question types will be designed. As you design your questions, make sure you record the curriculum section and page numbers of the supporting content in case you need to refer back for answer verification.

Save your work and then meet with another group, or the entire class, and quiz them using the questions you developed.

Resources

- Word processing software program
- Curriculum content from the previous chapter

Instructor Resources (previous-chapter representative example questions)

1. Fill in the blanks: If an EIGRP neighbor receives a _____ packet, it will _____ an acknowledgment.
 - a. broadcast, broadcast
 - b. broadcast, unicast
 - c. multicast, unicast**
 - d. unicast, multicast
2. By default, what metrics does EIGRP use to find the best network path? (choose all that apply)
 - a. MTU
 - b. Bandwidth**
 - c. Load
 - d. Delay**
 - e. Reliability
3. True or False: A router which receives a direct query from another router must acknowledge the query.

- a. **True**
 - b. False
4. True or False: Multicast EIGRP packets for IPv6 are sent to FF02::10.
 - a. **True**
 - b. False
5. True or False: EIGRP authenticates and encrypts routing updates.
 - a. **True**
 - b. False
6. **Load Balancing:** True or False: EIGRP supports equal cost load balancing as well as unequal cost load balancing.
 - a. **True**
 - b. False
7. **Timers:** True or False: Hold times are used to declare an EIGRP route as operational or down.
 - a. **True**
 - b. False
8. **Timers:** True or False: By default, the hold time is three times the hello interval, or 15 seconds on most networks
 - a. **True**
 - b. False
9. **Timers:** True or False: By default, the hold time is 180 seconds and the hello interval is 60-seconds on low speed NBMA networks
 - a. **True**
 - b. False
10. EIGRP uses this algorithm to accomplish fast network convergence.
 - a. Bellman-Ford
 - b. **Diffused update Algorithm (DUAL)**
 - c. Dijkstra

Identify elements of the model that map to IT-related content:

- Auto-summarization
- DUAL
- Load balancing
- Hold-down timers
- Hello interval
- Authentication
- Multicast
- Unicast
- Broadcast
- Encryption