ENCOR v1.1 (350-401) Video Training Series
Module 1 – Lesson 6 Quiz

Questions

1. Which mechanism is the slowest method for switching packets, where every packet is inspected by the switch CPU?

   A. Cisco Express Forwarding
   B. Fast Switching
   C. Process Switching
   D. Slow Switching

2. Which switching mechanism is the default method in most modern Cisco IOS devices?

   A. Fast Switching
   B. Cisco Express Forwarding
   C. Process Switching
   D. Slow Switching

3. Which memory architecture is used on all Catalyst switch models to perform Layer 2 switching?

   A. CAM
   B. TCAM
   C. FIB
   D. RIB

4. Which switch structure stores IP routing-related information, and is also referred to as the Cisco Express Forwarding (CEF) table?

   A. CAM
   B. TCAM
   C. FIB
   D. RIB

Questions and Answers

1. Which mechanism is the slowest method for switching packets, where every packet is inspected by the switch CPU?

   A. Cisco Express Forwarding
   B. Fast Switching
   C. Process Switching
   D. Slow Switching

Answer: C
Explanation: Process Switching is the original method for Cisco IOS switching, where every packet is inspected by the switch CPU. When a packet arrives on the switch, the processor function is interrupted in order to analyze the packet and compare it to the internal routing table for forwarding. The next-hop destination attached to the packet is used to determine the outbound switch interface that should be used for packet delivery. A new Layer 2 frame header is constructed for every single packet, making this a slow method that is not ideal for modern networks.

Video Reference: Process Switching

2. Which switching mechanism is the default method in most modern Cisco IOS devices?

   A. Fast Switching
   B. Cisco Express Forwarding
   C. Process Switching
   D. Slow Switching

Answer: B
Explanation: Cisco Express Forwarding (CEF) is the preferred method for modern IOS switching and is the default method on most modern Cisco devices. CEF stores information in a route cache for optimized lookup and efficient packet handling. This is much less processor-intensive than older mechanisms, reserving CPU power for critical operations such as encryption and QoS.

Video Reference: Cisco Express Forwarding (CEF)

3. Which memory architecture is used on all Catalyst switch models to perform Layer 2 switching?

    A. CAM
    B. TCAM
    C. FIB
    D. RIB

Answer: A
Explanation: The Content Addressable Memory (CAM) table is the memory architecture used in Cisco Catalyst switches for Layer 2 switching. As data frames arrive on a switchport, the source MAC addresses for the traffic are recorded in the CAM table. This is used to determine which outgoing switchport should be used for frame delivery.

Video Reference: The CAM vs. the TCAM

4. Which switch structure is a mirrored copy of the IP routing table?

    A. CAM
    B. TCAM
    C. FIB
    D. RIB

Answer: C
Explanation: The FIB is conceptually similar to a routing table or information base. It maintains a mirror image of the forwarding information contained in the IP routing table. When routing or topology changes occur in the network, the IP routing table is updated, and these changes are reflected in the FIB. The FIB maintains next-hop address information based on the information in the IP routing table.

Video Reference: The FIB vs. the RIB