28(B). APIC-EM ACL Analysis

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P A T H   T R A C E   T O O L

Path Trace Tool—One of several applications available within APIC-EM.

- Input—source and destination IP addresses entered into a pop-up dialog window

- Processing—the tool analyzes the current forwarding tables in the devices within its domain. These tables are maintained on individual devices but learned by APIC-EM over the southbound interface (SBI).

- Output Display

  ○ A single-line diagram (left to right) of network device icons and arrows between them showing the path a packet/frame would take. (Actually, the sequence of devices it would pass through). Paths not taken are not shown; it doesn't diagram the world. The arrows between devices are tagged with words like "switched" for L2 forwarding

  ○ A list of the same devices (down the screen) follows, with additional details for each, including ingress & egress interfaces

  ○ A running ticker tape of path traces it has performed is in a window "pane" to the left of the above two items

APIC-EM User Interface Navigation—The blue "more options" below the source and destination addresses in the popup (above the checkboxes) adds fields for protocol (e.g. TCP) and port number, useful when you're using the ACL trace option.

Tools (Path Trace Highlighted)   Completed Traces   The checkbox to trace ACLs   Start a new trace

Normally, the path trace tool doesn't consider ACLs, but you can ask it to (checkbox above). [Screenshot from the online version of Appendix B of the official certification guide]

The path trace tool will analyze the path normally, determining a list of devices and interfaces, then analyze the ACLs along that path. You get the same diagram as before, but with additional icons denoting ACL effects. In the vertical list of devices, you can drill down to see the actual ACLs.

ACL Indicators

ACL Icons—The yellow triangle handles situations where you didn't provide protocol and port information under "more options," e.g. TCP port 80."

| No ACL | ACL Doesn't Interfere | ACL Blocks Path | ACL Might Block Path |