

1. Refer to the exhibit. When Router D is configured to use a link-state routing protocol and is added to the network, what is the first thing that it does to begin learning the network topology?

It learns about its directly connected networks when its interfaces reach the up state.

2. What two events will cause a link state router to send LSPs to all neighbors? (Choose two.)

Whenever the network topology changes

Upon initial startup of router or routing protocol

3. What is the final step in the link state routing process?

SPF computes best path to each destination network

4. What two statements correctly describe the link state routing process? (Choose two.)

Each router in the area floods LSPs to all neighbors

All routers in the area have identical link state databases

5. Refer to the exhibit. What kind of information would be seen in an LSP sent from router JAX to router ATL?

Cost of the link

6. What feature do modern link-state protocols provide to minimize processing and memory requirements?

Splitting routing topologies into smaller areas

7. To achieve network convergence, what three steps does each link state router take? (Choose three.)

Build a Link State Packet (LSP) containing the state of each directly connected link

Flood the LSP to all neighbors, who then store all LSPs received in a database

Construct a complete map of the topology and compute the best path to each destination network

8. What speeds up convergence in a network using link-state routing?

Updates triggered by network changes

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9. Why is it difficult for routing loops to occur in networks that use link-state routing?

Each router builds a complete and synchronized view of the network.

10. What are some of the advantages of using a link-state routing protocol instead of a distance vector routing protocol? (Choose two.)

Routers have direct knowledge of all links in the network and how they are connected.

After the initial LSA flooding, they generally require less bandwidth to communicate

Changes in a topology.

11. Which algorithm is run by link-state routing protocols to calculate the shortest path to destination networks?

Dijkstra

12. Refer to the exhibit. Which statement correctly describes the path traffic would take from the 10.0.0.0/24 network to the 192.168.1.0/24 network if a link-state routing protocol was in use?

BOS -> ORL -> JAX -> ATL because this path is the lowest cost

13. Which database or table must be identical on all link-state routers within an area in order to construct an accurate SPF tree?

Link-state database

14. Which two routing protocols use Dijkstra's shortest path first algorithm? (Choose two.)

IS-IS

OSPF

15. When are link-state packets sent to neighbors?

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When a link goes up or down

16. Refer to the exhibit. What does JAX do with link-state packets from ORL?

Sends out the individual link-state packets out the interface connected to BOS

17. A new network administrator is given the task of selecting an appropriate dynamic routing protocol for a software development company. The company has over 100 routers, uses CIDR and VLSM, requires fast convergence, and uses both Cisco and non-Cisco equipment. Which routing protocol is appropriate for this company?

OSPF

18. What action does a link-state router take immediately upon receipt of an LSP from a neighboring router?

Floods the LSP to neighbors

19. Refer to the exhibit. If all routers and interfaces are configured to use a link-state routing protocol, from which routers will router D receive hello packets?

B and C