**Distance Vector Routing was replaced with Link State Routing mainly because of two primary problems. What are they? Name them and elaborate briefly.**

Distance Vector Routing requires routing information from each node to be sent to it’s close neighbors at regular intervals. In this way, Distance Vector Routing allows only nodes close to each other on a network to have full visibility of each other. On the other hand, Link State Routing asks each node to send partial routing information to all the nodes on a network when there are changes. In this way, each router has visibility of the entire network (Cisco, n.d.),

There are 2 advantages of Link State Routing over Distance Vector Routing:

* Link State Routing is less likely to produce routing loops stemming from the count-to-infinity problem. Because Distance Vector Routing provides information only to neighboring nodes, convergence issues can happen. Each node updates its routing table based on information just received from nearby nodes. As nodes announce routes to nearby nodes, the number of hops that a message will need to take to get to a certain node can be artificially inflated to an infinite number of hops. With Link State Routing every node knows what the entire network looks like, reducing the likelihood of loops and allowing faster convergence times (TechNet, 2014).
* Link State Routing is more scalable because network administrators can divide the network up into multiple routing “areas”. Doing this allows larger networks to be built as well as troubleshooted if there are problems (DansCourses, 2013).

References

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