ROUTING TOPOLOGY

- EIGRP :-

  This is Cisco proprietary protocol. It depends on reliable transport protocol (RTP). This is a hybrid protocol and also considered as advanced distance vector protocol. It uses bandwidth and delay to calculate its path cost. It considers the lowest bandwidth or choke bandwidth of the entire path and total delay of the path. It uses Diffusing Update Algorithm (DUAL). EIGRP uses bounded triggered update that is whenever the network changes it will send its updates only to its some specific neighbour. EIGRP will send only a part of the routing table also called as partial routing update. It also uses hello message to create and maintain neighbourhood. It uses multicast address 224.0.0.10. EIGRP considers 2 types of route cost for any particular destination. The route cost from the router itself is called feasible distance(FD) and the route cost from the next hop is called advertise distance (AD)

ROUTING TOPOLOGY

- Or, reported distance (RD). EIGRP can also maintain backup routs for the main route or primary route. The primary route for the destination is the route having smallest FD and it is called successor route. If EIGRP finds any route which AD value is less than the FD of the successor route then, the route is called feasible successor route or backup route. If the primary route fails the backup route is used immediately.

ROUTING TOPOLOGY

- EIGRP :-

  Cisco Proprietary Protocol : -

  Hybrid Protocol : -

  Uses DUAL algorithm : -

  Unlimited hop count : -

  AD Value 90

  Classless

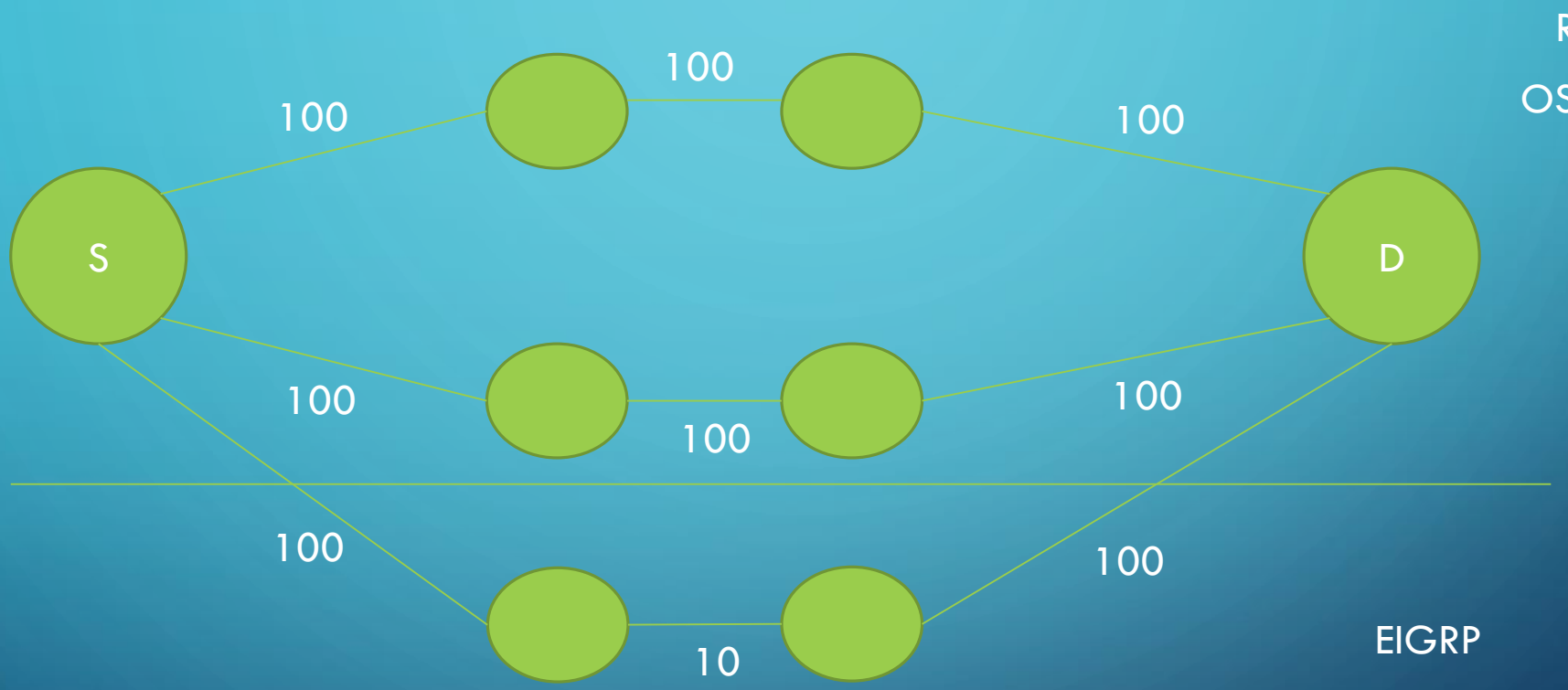
  Supports VLSM : -

  Supports both equal/unequal load balancing

  Supports both IPv4 and IPv6

ROUTING TOPOLOGY

- Equal and Unequal load balancing :-



ROUTING TOPOLOGY

- EIGRP Packets : -
  1. Hello (Sends after 5 seconds)
  2. Update
  3. Query (Asks for other route if any down)
  4. Reply
  5. Acknowledgement

ROUTING TOPOLOGY

- EIGRP Tables : -
  1. Neighbour table : - List of directly connected Router
  2. Topology table : - List of all the networks
  3. Routing table : - Best Path

ROUTING TOPOLOGY

- EIGRP timers
- Hello Timer :- 5 seconds
- Hold Down Timer :- 15 seconds

END OF DAY 15

NETWORKING (CCNA TRAINING)

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