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Time: 15 minutes

1. EIGRP is protocol independent, what does it mean?

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EIGRP is protocol independent. This means that whatever protocol might be present in network layer, the PDM (Protocol Dependent module) router ~~each~~ <sup>will work for</sup> protocol in this layer. So it does not matter if there is IP, or any protocol for EIGRP since PDM ~~is~~ takes care of it.

2. What is RTP?

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RTP is reliable transport protocol. It is mainly used to transmit EIGRP packets. It can be reliable and unreliable as well. Its address is generally 224.0.0.10

when used then reliable

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3. EIGRP is more efficient in sending updates, how?

EIGRP uses Partial update and Boundary update. Partial update notifies if any routing information is changed. But it is only the information of a particular which is changed. Boundary update notifies the devices which are affected by routing change. So it uses less bandwidth and thus is efficient.

4.

A router running EIGRP finds 3 routes to the destination network 200.20.20.0.

Route X has FD 4123567 and RD 3011840

Route Y has FD 3678455 and RD 3045600

Route Z has FD 2965430 and RD 40680

Which route/s will become the successor and feasible successor? Explain your answer. How is the metric calculated?

Route ~~X~~ ~~Y~~ Z will be the ~~Successor~~ and

Route Y will be the feasible successor.

Since Z has the lowest FD it is the Successor.

And it also ~~must~~ meet the condition of FC where the FD of Z is greater than Backup Route Y's RD.

Route Y is the successor and Route Z is the Feasible

Successor. Because Z might be the one with lowest FD but it does not meet the condition of FC if Y is the backup route which has second lowest FD. i.e.,  $FD(Z) < RD(Y)$  [if Z is considered Successor]. So Y is successor and Z is feasible successor and  $FD(Y) > RD(Z)$ .

The metric is ~~calculated~~ calculated using two variables Bandwidth and delay.

$$\text{ie, Metric} = \left[ \frac{\text{Reference Bandwidth} (10^7)}{\text{Smallest Bandwidth}} * 256 \right] +$$

$$\left[ \frac{\text{Sum of Delay}}{10} * 256 \right]$$

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