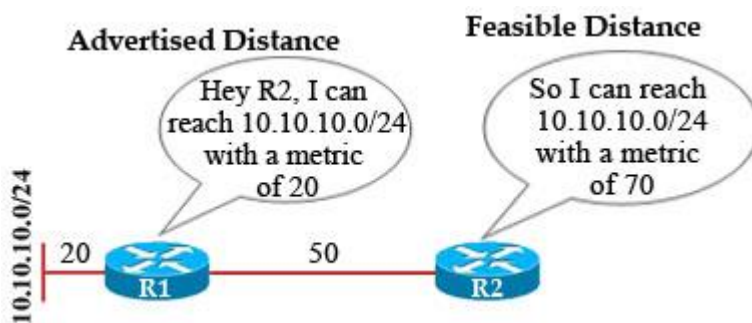


EIGRP Feasible Condition role

The advertised metric from an EIGRP neighbor (peer) to the local router is called Advertised Distance (or reported distance) while the metric from the local router to that network is called Feasible Distance. For example, R1 advertises network 10.10.10.0/24 with a metric of 20 to R2.

For R2, this is the advertised distance. R2 calculates the feasible distance by adding the metric from the advertised router (R1) to itself. So in this case the feasible distance to network 10.10.10.0/24 is $20 + 50 = 70$.



Before a router can be considered a feasible successor, it must pass the **feasibility condition rule**. In short, the feasibility condition says that if we learn about a prefix from a neighbor, the advertised distance from that neighbor to the destination must be lower than our feasible distance to that same destination.

Therefore we see the Advertised Distance always smaller than the Feasible Distance to satisfy the feasibility condition.