Free Cisco Lab Packet Tracer Activity Basic Rip

This Packet Tracer activity “Basic Rip” is a great lab for those studying for their CCNA. It demonstrates how to configure and use RIP in a network environment. This lab is also a great review scenario for CCNP and CCIE studies.

I have not locked the activity wizard so feel free to add to the lab by trying things lake access list to limit the access to server functions like http access. Also create some break-fix scenarios. Use the lab to learn more than just how to configure RIP.

RIP (Routing Information Protocol) is a dynamic routing protocol used in local and wide area networks. As such it is classified as an interior gateway protocol (IGP). It uses distance-vector routing protocol, which employs the hop count as a routing metric. The hold down time is 180 seconds. RIP prevents routing loops by implementing a limit on the number of hops allowed in a path from the source to a destination. The maximum number of hops allowed for RIP is 15. This hop limit, however, also limits the size of networks that RIP can support. A hop count of 16 is considered an infinite distance and used to deprecate inaccessible, inoperable, or otherwise undesirable routes in the selection process.

RIP implements the split horizon, route poisoning and holddown mechanisms to prevent incorrect routing information from being propagated. These are some of the stability features of RIP. It is also possible to use Routing Information Protocol with Metric-based Topology Investigation (RMTI) to cope with the count to infinity problem. This makes it possible to detect every possible loop with a very small computation effort.