(CCNP Routing topics)

Points to Remember(Important)

- GRE tunnels can run through IPsec tunnels
- For a GRE tunnel to be up between two routers, Tunnel interfaces must be in the same subnet.

Two benefits of using GRE tunnels with IPsec over using IPsec tunnel alone for building site-to-site VPNs

- Allows dynamic routing securely over the tunnel
- Supports non-IP traffic over the tunnel

Four main steps in configuring GRE tunnel over IPsec on Cisco routers

1. Configure a physical interface or create a loopback interface to use as the tunnel end point
2. Create the GRE tunnel interfaces
3. Add the tunnel subnet to the routing process so that it exchanges routing updates across that interface
4. Add GRE traffic to the crypto access-list so that IPsec encrypts the GRE tunnel traffic

3 statements about IP multicast configuration

1. PIM sparse mode and PIM sparse-dense mode require an RP on the network
2. PIM dense mode interfaces are always added to the multicast routing table in a router
3. PIM sparse-dense mode acts as PIM dense mode if an RP is not known

Two situations that need use of multiple routing protocols

1. When using UNIX host-based routers
2. When migrating from an older interior Gateway Protocol (IGP) to a new IGP

Two methods use IPsec to provide secure connectivity from the branch office to the headquarters office

1. DMVPN
2. Virtual Tunnel Interface(VTI)