

Tutorial 7

1. Based on Figure 3-1 and Figure 3-2, identify and explain the problems and provide solutions for VPN configurations.

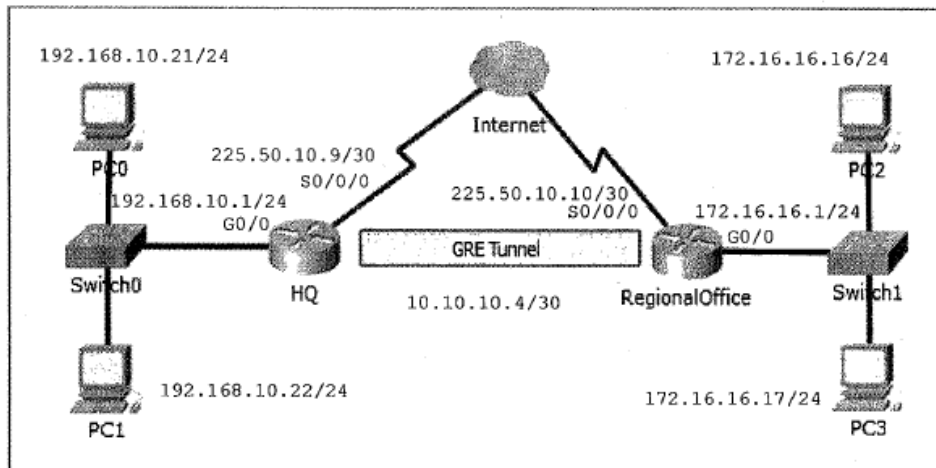


Figure 3-1: GRE Tunnel on routers HQ and RegionalOffice

<pre> hostname HQ interface tunnel0 ip address 10.10.10.4 255.255.255.252 tunnel source s0/0/0 tunnel destination 10.10.10.5 interface g0/0 ip address 192.168.10.1 255.255.255.0 int s0/0/0 ip address 225.50.10.9 255.255.255.252 router ospf 1 network 192.168.10.0 0.0.0.255 area 0 network 10.10.10.4 0.0.0.5 area 0 ip route 0.0.0.0 0.0.0.0 s0/0/0 </pre>	<pre> hostname RegionalOffice interface tunnel0 ip address 10.10.10.5 255.255.255.252 tunnel source s0/0 tunnel destination 10.10.10.4 interface g0/0 ip address 172.16.16.1 255.255.255.0 int s0/0/0 ip address 225.50.10.10 255.255.255.252 router ospf 1 network 172.16.16.0 0.0.0.255 area 0 network 10.10.10.4 0.0.0.3 area 0 ip route 0.0.0.0 0.0.0.0 s0/0/0 </pre>
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Figure 3-2 GRE configurations on router HQ and RegionalOffice

2. Enterprise managed VPNs can be deployed in two configurations. Explain TWO (2) types of Enterprise managed VPNs.
3. What is the difference between IPsec and SSL VPNs?
4. a) Illustrate IPsec framework which consists of essential security functions such as Confidentiality, Integrity, Origin authentication and Diffie-Hellman.
b) Explain two examples for each security function to protect data.