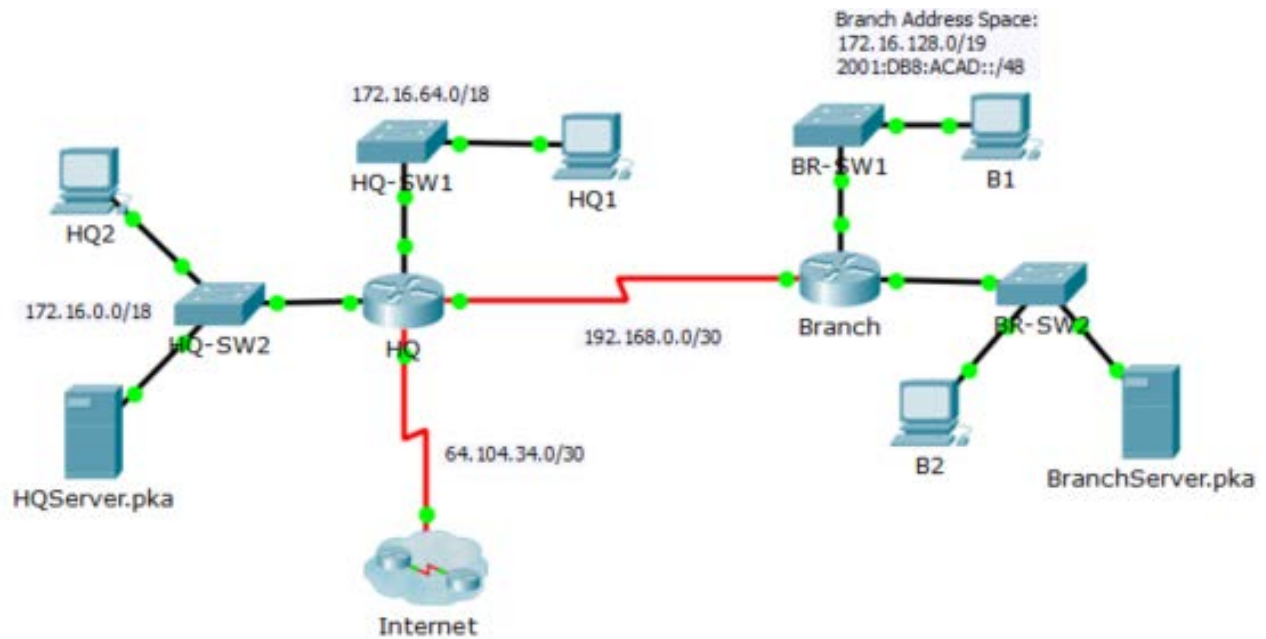


Packet Tracer - Skills Integration Challenge

Topology



Addressing Table

Device	Interface	IP Address	Subnet Mask	Default Gateway
		IPv6 Address / Prefix		
HQ	G0/0	172.16.127.254	255.255.192.0	N/A
	G0/1	172.16.63.254	255.255.192.0	N/A
	S0/0/0	192.168.0.1	255.255.255.252	N/A
	S0/0/1	64.104.34.2	255.255.255.252	64.104.34.1
Branch	G0/0			N/A
	G0/1			N/A
	S0/0/0	192.168.0.2	255.255.255.252	N/A
HQ1	NIC	172.16.64.1	255.255.192.0	172.16.127.254
HQ2	NIC	172.16.0.2	255.255.192.0	172.16.63.254
HQServer.pka	NIC	172.16.0.1	255.255.192.0	172.16.63.254
B1	NIC			
B2	NIC	172.16.128.2	255.255.240.0	172.16.143.254
BranchServer.pka	NIC	172.16.128.1	255.255.240.0	172.16.143.254
		2001:DB8:ACAD:B2::3/64		2001:DB8:ACAD:B2::1

Scenario

In this challenge activity, you will finish the addressing scheme, configure routing, and implement named access control lists.

Requirements

- a. Divide 172.16.128.0/19 into two equal subnets for use on **Branch**.
 - 1) Assign the last usable IPv4 address of the second subnet to the Gigabit Ethernet 0/0 interface.
 - 2) Assign the last usable IPv4 address of the first subnet to the Gigabit Ethernet 0/1 interface.
 - 3) Document the IPv4 addressing in the Addressing Table.
 - 4) Configure **Branch** with appropriate IPv4 addressing.
- b. Configure **B1** with appropriate IPv4 address using the first available address of the network to which it is attached.
 - 1) Assign 2001:DB8:ACAD:B1::1/64 and 2001:DB8:ACAD:B2::1/64 to **Branch's** Gigabit Ethernet 0/0 and Gigabit Ethernet 0/1, respectively.

- c. Configure **Branch** with appropriate IPv6 addressing.
- d. Configure **B1** and **B2** with appropriate IPv6 addresses using the first available address of the network to which it is attached.
- e. Document the addressing in the Addressing Table.
- f. Configure **HQ** and **Branch** with OSPFv2 routing for IPv4 according to the following criteria:
 - Assign the process ID 1.
 - Advertise all attached IPv4 networks. Do not advertise the link to the Internet.
 - Configure appropriate interfaces as passive.
- g. Set a IPv4 default route on **HQ** which directs traffic to S0/0/1 interface. Redistribute the route to **Branch**.
- h. Design an IPv4 named access list **HQServer** to prevent any computers attached to the Gigabit Ethernet 0/0 interface of the **Branch** router from accessing **HQServer.pka**. All other traffic is permitted. Configure the access list on the appropriate router, apply it to the appropriate interface and in the appropriate direction.
- i. Design an IPv4 named access list **BranchServer** to prevent any computers attached to the Gigabit Ethernet 0/0 interface of the **HQ** router from accessing the HTTP and HTTPS service of the **Branch** server. All other traffic is permitted. Configure the access list on the appropriate router, apply it to the appropriate interface and in the appropriate direction.
- j. Design an IPv6 access-list named **NO-B1** to prevent any IPv6 traffic originating on **B1** to reach the **BranchServer.pka**. No traffic should be permitted from **B1** to **BranchServer.pka**. Apply the IPv6 access to the most appropriated location (interface and direction).