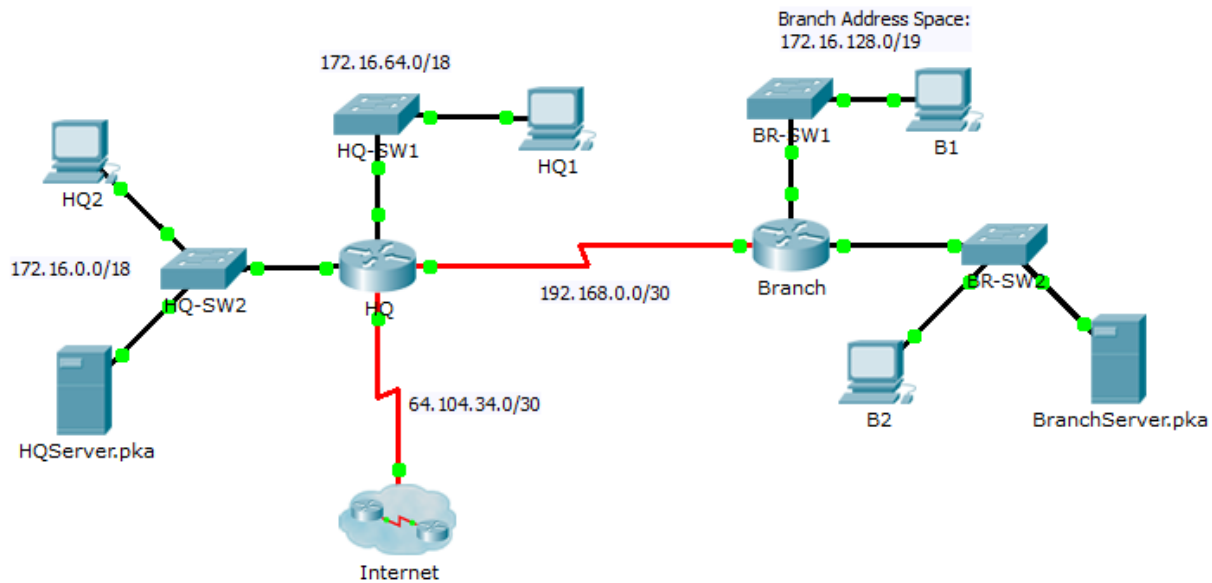


## 7.4.1.2 Packet Tracer - Skills Integration Challenge

### Topology



### Addressing Table

Device	Interface	IP Address	Subnet Mask	Default Gateway
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

### 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 address of the second subnet to the Gigabit Ethernet 0/0 interface.
  - 2) Assign the last usable address of the first subnet to the Gigabit Ethernet 0/1 interface.
  - 3) Document the addressing in the Addressing Table.
  - 4) Configure **Branch** with appropriate addressing
- b. Configure **B1** with appropriate addressing using the first available address of the network to which it is attached. Document the addressing in the Addressing Table.
- c. Configure **HQ** and **Branch** with **OSPF** routing according to the following criteria:
  - Advertise all three attached networks. Do not advertise the link to the Internet.
  - Configure appropriate interfaces as passive. The **passive interface** should be configured on interfaces that do not have an **OSPF** router connected to them so that they won't receive any OSPF information. By silencing routing announcements on network interfaces, we tell the router to "listen but don't talk."
- d. Set a default route on **HQ** which directs traffic to S0/0/1 interface. Redistribute the route to **Branch**.
- e. Design a 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.
- f. Design a named access list **BranchServer** to prevent any computers attached to the Gigabit Ethernet 0/0 interface of the **HQ** router from accessing 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.