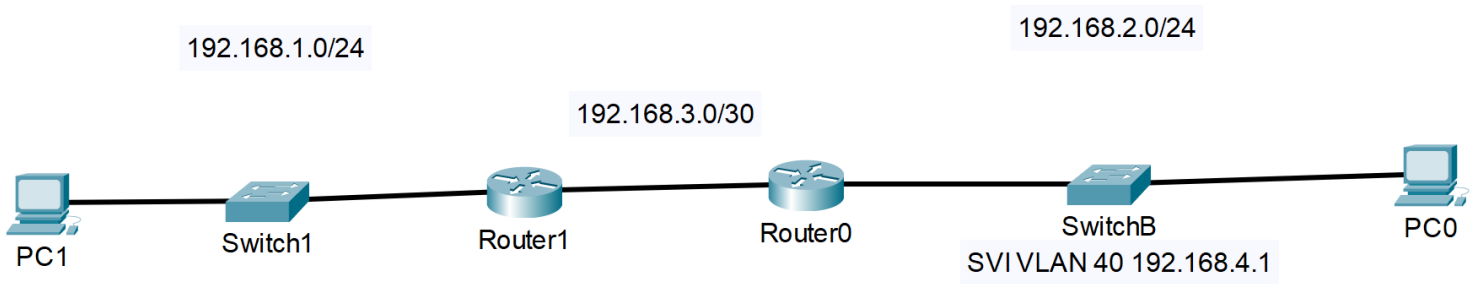
SSH Connections

Objective: My objective in this at-home lab was to set up a simple network to simulate SSH remote connections that you would have within a data center. Having remote connections within a company is super useful because you can make changes on the fly without having to connect to the out-of-band service port on the device. The devices I configured with SSH remote connections were Router-A and Switch-B. For Switch-B I configured a VLAN 40 for Management and assigned an SVI to it. I also configured ACL on Router-A and Switch-B to limit access. In order for traffic to go through VLAN 40 I had to make a trunk link and ROAS configuration.

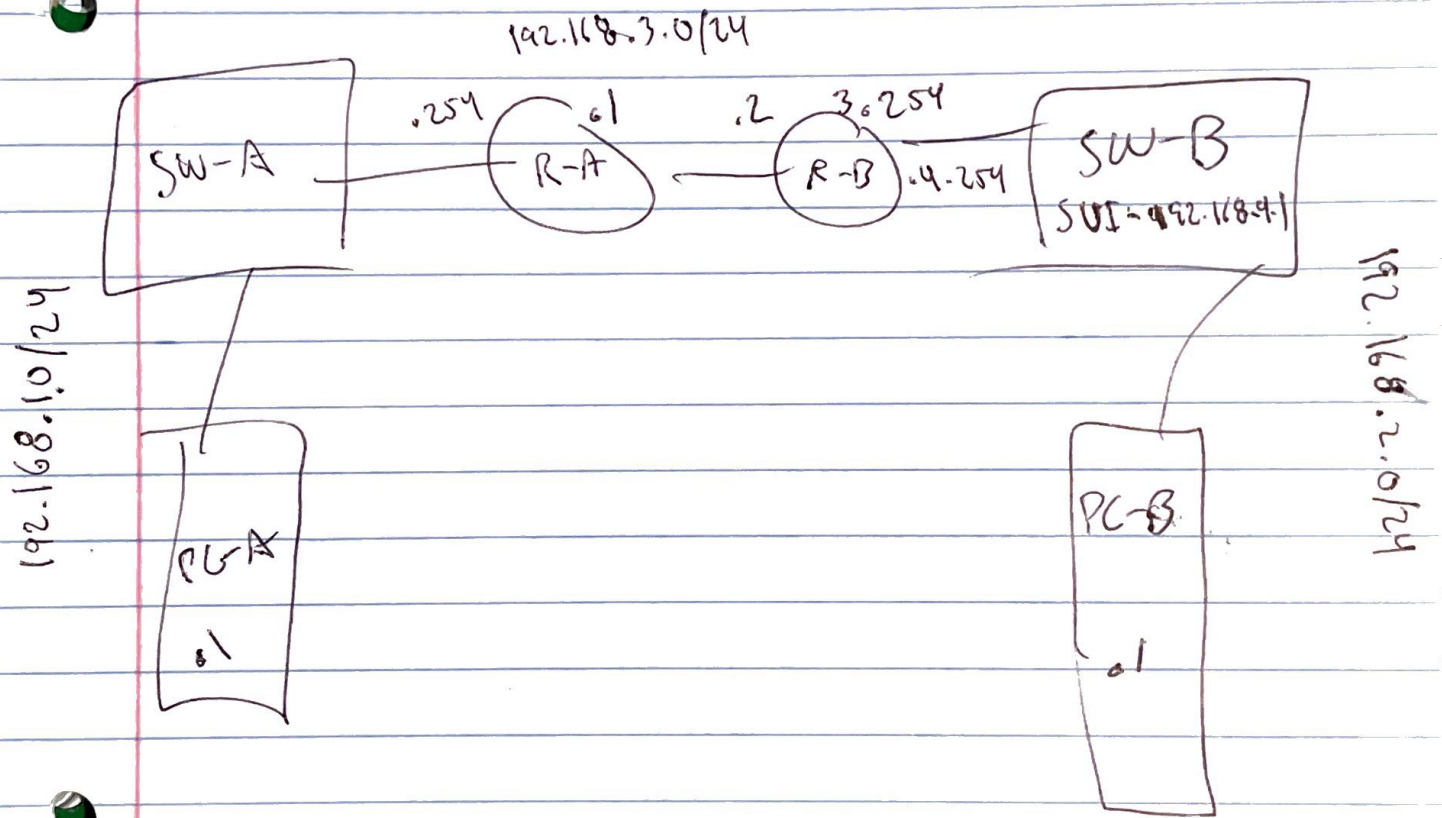
Equipment: (2) Cisco 2811, Cisco 2960, Cisco WS 3560, PC-A, and PC-B

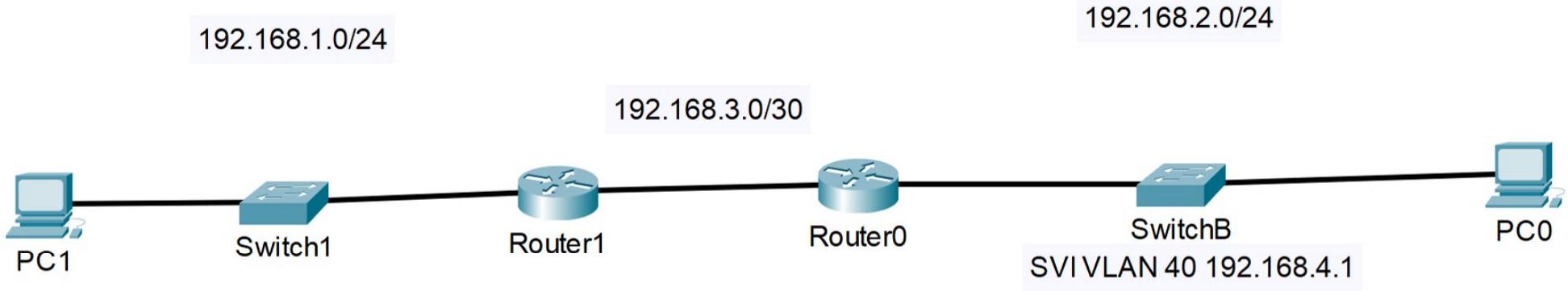
Key Steps:

a. Assign the first usable address to PC-A and the last address as the gateway for Router-A from the block of 192.168.1.0/24
b. Assign the first usable address to PC-B and the last address as the gateway for Router-B from the block of 192.168.2.0/24
c. Make a P2P connection with the 2 routers from the block 192.168.3.0/30
d. Assign an SVI to Switch-B in VLAN 40 and configure a ROAS with a Trunk on the interface
e. Generate crypto keys the size of 1024 bits for Router-A and Switch-B, with a domain name of Davidslab
f. Create a user of David and secret password Davidrocks
g. Configure an access-class rule to only allow host 192.168.1.1 to access Switch-B and allow host 192.168.2.1 to only access Router-A



Router-A- 192.168.1.254/24 - F0/0
Router-A- 192.168.3.1/30 - F0/1
Router-B - 192.168.2.254/24 - F0/0.1
Router-B - 192.168.3.2/30 - F0/1
Router-B - 192.168.4.254/24 - F0/0-40
PC-A - 192.168.1.1/24 → SW A F0/1
PC-B - 192.168.2.1/24 → SW B F0/1
SW-A → Router-A - F0/0
SW-B → Router-B - F0/0
Router-A → Router-B - F0/1




192.168.1.0/24
192.168.3.0/30
192.168.2.0/24
PC1
Switch1
Router1
Router0
SwitchB
SVI VLAN 40 192.168.4.1
PC0

```
FastEthernet0 Connection:(default port)

   Connection-specific DNS Suffix..:
   Link-local IPv6 Address.....: FE80::201:63FF:FE6C:AD53
   IPv6 Address.....: ::
   IPv4 Address.....: 192.168.1.1
   Subnet Mask.....: 255.255.255.0
   Default Gateway.....: ::
                                 192.168.1.254

Bluetooth Connection:

   Connection-specific DNS Suffix..:
   Link-local IPv6 Address.....: ::
   IPv6 Address.....: ::
   IPv4 Address.....: 0.0.0.0
   Subnet Mask.....: 0.0.0.0
   Default Gateway.....: ::
                                 0.0.0.0

C:\>ssh -l David 192.168.4.1

Password:
% Login invalid


Password:



Switch-B>
```

```
FastEthernet0 Connection:(default port)

   Connection-specific DNS Suffix..:
   Link-local IPv6 Address.....: FE80::202:17FF:FE68:9ECE
   IPv6 Address.....: ::
   IPv4 Address.....: 192.168.2.1
   Subnet Mask.....: 255.255.255.0
   Default Gateway.....: ::
                                 192.168.2.254

Bluetooth Connection:

   Connection-specific DNS Suffix..:
   Link-local IPv6 Address.....: ::
   IPv6 Address.....: ::
   IPv4 Address.....: 0.0.0.0
   Subnet Mask.....: 0.0.0.0
   Default Gateway.....: ::
                                 0.0.0.0

C:\>ssh -l David 192.168.3.1

Password:



Router-A>
```