**PART 2:**

Step 1: Use ping to verify IPv4 connectivity.

a.From PC1, ping the IPv4 address for PC2. Was the result successful?

Answer: yes

b.From PC2, ping the IPv4 address for PC1. Was the result successful?

Answer: yes

Step 2: Use ping to verify IPv6 connectivity.

a. From PC1, ping the IPv6 address for PC2. Was the result successful?

Answer: Yes

b. From PC2, ping the IPv6 address of PC1. Was the result successful?

Answer: Yes

**PART 3:**

Step 1: Use tracert to discover the IPv4 path.

a. From PC1, trace the route to PC2.

PC> tracert 10.10.1.20

What addresses were encountered along the path?

10.10.1.97, 10.10.1.5, 10.10.1.10, 10.10.1.20

With which interfaces are the four addresses associated?

G0/0 of R1, S0/0/0 of R2, S0/0/01 of R3, NIC of PC2

b. From PC2, trace the route to PC1.

What addresses were encountered along the path?

10.10.1.17, 10.10.1.9, 10.10.1.6, 10.10.1.100

With which interfaces are the four addresses associated?

G0/0 of R3, S0/0/1 of R2, S0/0/1 of R1, NIC of PC1

Step 2: Use tracert to discover the IPv6 path.

a. From PC1, trace the route to the IPv6 address for PC2.

PC> tracert 2001:DB8:1:4::A

What addresses were encountered along the path?

2001:DB8:1:1::1, 2001:DB8:1:2::1, 2001:DB8:1:3::2, 2001:DB8:1:4::A

With which interfaces are the four addresses associated?

g0/0 of R1, S0/0/0 of r2, S0/0/1 of R3, NIC of PC2

b. From PC2, trace the route to the IPv6 address for PC1.

What addresses were encountered along the path?

2001:DB8:1:4::1, 2001:DB8:1:3::1, 2001:DB8:1:2::2, 2001:DB8:1:1::A

With which interfaces are the four addresses associated?

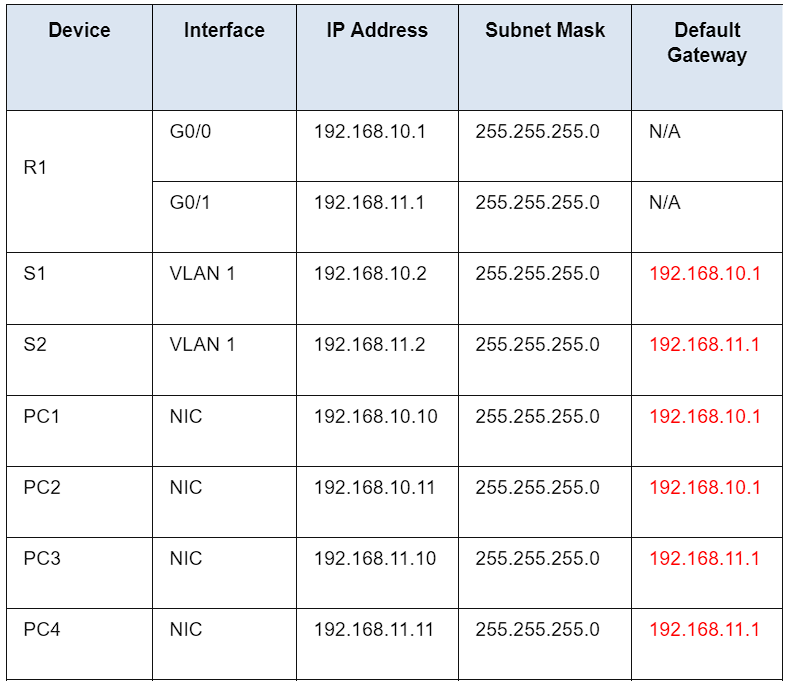
Ga0/0 of R3, S0/0/1 of R2, S0/0/1 of R1, NIC of PC1

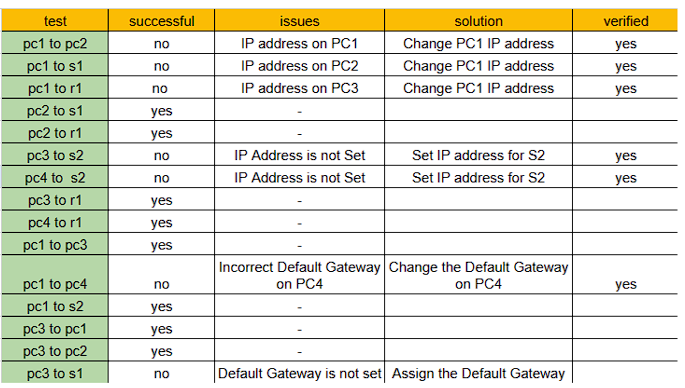
**Troubleshooting Default Gateway Issues:**

ISSUES:

Issues

* PC1 cannot ping PC2 because PC1 has an IP address that does not belong to the network PC1 is attached to.
* Devices cannot ping S2 and S2 cannot ping any device because S2 is missing an IP address.
* Remote devices cannot ping PC4 because PC4 has the wrong default gateway configured.
* Remote devices cannot ping S1 because S1 is missing a default gateway configuration.

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