

Tema 7.7.2.8..EnriqueGomezTagle

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Packet Tracer - Verify IPv4 and IPv6 Addressing

Addressing Table

Device	Interface	IP Address / Prefix		Default Gateway
R1	G0/0	10.10.1.97	255.255.255.224	N/A
		2001:db8:1:1::1/64		
	S0/0/1	10.10.1.6	255.255.255.252	N/A
		2001:db8:1:2::2/64		
		fe80::1		
R2	S0/0/0	10.10.1.5	255.255.255.252	N/A
		2001:db8:1:2::1/64		
	S0/0/1	10.10.1.9	255.255.255.252	N/A
		2001:db8:1:3::1/64		
		fe80::2		
R3	G0/0	10.10.1.17	255.255.255.240	N/A
		2001:db8:1:4::1/64		
	S0/0/1	10.10.1.10	255.255.255.252	N/A
		2001:db8:1:3::2/64		
		fe80::3		
PC1	NIC	10.10.1.100	255.255.255.224	10.10.1.97
		2001:db8:1:1::a/64		fe80::1
PC2	NIC	10.10.1.20	255.255.255.240	10.10.1.17
		2001:db8:1:4::a/64		fe80::3

Part 2: Test Connectivity Using Ping

Step 1: Use ping to verify IPv4 connectivity.

- a. From PC1, ping the IPv4 address for PC2.

Was the result successful?

Si

- b. From PC2, ping the IPv4 address for PC1.

Was the result successful?

Si

Step 2: Use ping to verify IPv6 connectivity.

- a. From PC1, ping the IPv6 address for PC2.

Was the result successful?

Si

- b. From PC2, ping the IPv6 address of PC1.

Was the result successful?

Si

Part 3: Discover the Path by Tracing the Route

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

- 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 R2, S0/0/1 R2, S0/0/1 R1, NIC PC1

G0/0 R3, S0/0/1 R2, S0/0/1 R1, R2 ---

Step 2: Use tracer 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?

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 R1, S0/0/0 R2, S0/0/1 R3, NIC 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?

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

