

1.4.7 Packet Tracer - Configure Router Interfaces (Instructor Version)

Instructor Note: Red font color or gray highlights indicate text that appears in the instructor copy only.

Addressing Table

Device	Interface	IP Address/Prefix	Default Gateway
R1	G0/0	172.16.20.1 /25	N/A
	G0/1	172.16.20.129 /25	N/A
	S0/0/0	209.165.200.225 /30	N/A
PC1	NIC	172.16.20.10 /25	172.16.20.1
PC2	NIC	172.16.20.138 /25	172.16.20.129
R2	G0/0	2001:db8:c0de:12::1/64	N/A
	G0/1	2001:db8:c0de:13::1/64	N/A
	S0/0/1	2001:db8:c0de:11::1/64	N/A
		fe80::2	N/A
PC3	NIC	2001:db8:c0de:12::a/64	fe80::2
PC4	NIC	2001:db8:c0de:13::a/64	fe80::2

Objectives

Part 1: Configure IPv4 Addressing and Verify Connectivity

Part 2: Configure IPv6 Addressing and Verify Connectivity

Background

Routers R1 and R2 each have two LANs. Your task is to configure the appropriate addressing on each device and verify connectivity between the LANs.

Note: The user EXEC password is **cisco**. The privileged EXEC password is **class**.

Instructions

Part 1: Configure IPv4 Addressing and Verify Connectivity

Step 1: Assign IPv4 addresses to R1 and LAN devices.

Referring to the **Addressing Table**, configure IP addressing for R1 LAN interfaces, **PC1** and **PC2**. The serial interface has already configured.

Step 2: Verify connectivity.

PC1 and **PC2** should be able to ping each other and the **Dual Stack Server**.

Part 2: Configure IPv6 Addressing and Verify Connectivity

Step 1: Assign IPv6 addresses to R2 and LAN devices.

Referring to the **Addressing Table**, configure IP addressing for **R2 LAN interfaces, PC3** and **PC4**. The serial interface is already configured.

Step 2: Verify connectivity.

PC3 and **PC4** should be able to ping each other and the **Dual Stack Server**.

Final configuration

Router R1

```
interface GigabitEthernet0/0
 ip address 172.16.20.1 255.255.255.128
 no shutdown
interface GigabitEthernet0/1
 ip address 172.16.20.129 255.255.255.128
 no shutdown
interface Serial0/0/0
 ip address 209.165.200.225 255.255.255.252
 no shutdown
```

Router R2

```
interface GigabitEthernet0/0
 ipv6 address 2001:DB8:C0DE:12::1/64
 no shutdown
interface GigabitEthernet0/1
 ipv6 address 2001:DB8:C0DE:13::1/64
 no shutdown
interface Serial0/0/1
 ipv6 address FE80::2 link-local
 ipv6 address 2001:DB8:C0DE:11::1/64
 no shutdown
```