1.4.7 Packet Tracer - Configure Router Interfaces

# Addressing Table

|  |  |  |  |
| --- | --- | --- | --- |
| Device | Interface | IP Address/Prefix | Default Gateway |
| R1 | G0/0 | 172.16.20.1 /25 | N/A |
| R1 | G0/1 | 172.16.20.129 /25 | N/A |
| R1 | 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 |
| R2 | G0/1 | 2001:db8:c0de:13::1/64 | N/A |
| R2 | S0/0/1 | 2001:db8:c0de:11::1/64 | N/A |
| R2 | S0/0/1 | 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

## Configure IPv4 Addressing and Verify Connectivity

### 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.

### Verify connectivity.

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

## Configure IPv6 Addressing and Verify Connectivity

### 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.

### Verify connectivity.

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

End of document

# 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