Lab 7 Issayev Zh

[**12.9.1 - Packet Tracer - Implement a Subnetted IPv6 Addressing Scheme**](https://contenthub.netacad.com/itn#12.9.1)

| **Device** | **Interface** | **IPv6 Address** | **Link-local Address** |
| --- | --- | --- | --- |
| R1 | G0/0 | 2001:db8:acad:00c8::1/64 | fe80::1 |
| *R1* | G0/1 | 2001:db8:acad:00c9::1/64 | fe80::1 |
| *R1* | S0/0/0 | 2001:db8:acad:00cc::1/64 | fe80::1 |
| R2 | G0/0 | 2001:db8:acad:00ca::1/64 | fe80::2 |
| *R2* | G0/1 | 2001:db8:acad:00cb::1/64 | fe80::2 |
| *R2* | S0/0/0 | 2001:db8:acad:00c9::1/64 | fe80::2 |
| PC1 | NIC | Auto Config | |
| PC2 | NIC | Auto Config | |
| PC3 | NIC | Auto Config | |
| PC4 | NIC | Auto Config | |

[**13.2.6 - Packet Tracer - Verify IPv4 and IPv6 Addressing**](https://contenthub.netacad.com/itn#13.2.6)

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

[**13.2.7 - Packet Tracer - Use Ping and Traceroute to Test Network Connectivity**](https://contenthub.netacad.com/itn#13.2.7)

1.What is the last successful IPv4 address that was reached?

Answer: 10.10.1.97

2. What is the last successful IPv4 address that was reached?

Answer: 10.10.1.17

3. Enter the **show ip interface brief** command to list the interfaces and their status. There are two IPv4 addresses on the router. One should have been recorded in Step 2a.

What is the other?

Answer: 10.10.1.6

4. Enter the **show ip route** command to list the networks to which the router is connected. Note that there are two networks connected to the **Serial0/0/1** interface.

#### **Question:**

What are they?

Answer: 10.10.1.6/32,%2010.10.1.4/30

1. Repeat steps 2e through 2g with **R3** and record your answers.

Answer: 10.10.1.10, 10.10.1.8/30, 10.10.1.10/32

1. Enter the **show ip interface brief** command and record your addresses.

Answer: 10.10.1.2, 10.10.1.9

1. Compare your answers in Step 2 to the documentation you have available for the network.

#### **Question:**

What is the error?

Answer: R2’s Serial 0/0/0 interface is configured with the wrong IP address.

1. What solution would you propose to correct the problem?

Answer: Configure the correct IP address on R2’s Serial 0/0/0 interface (10.10.1.5)

1. What is the last successful IPv6 address that was reached?

Answer: 2001:db8:1:3::2

1. What is the last successful IPv6 address that was reached?

Answer: No IPv6 address was reached.

1. Compare your answers in Step 2 to the documentation you have available for the network.

#### What is the error?

Answer: PC4 is using the wrong default gateway configuration.

1. What solution would you propose to correct the problem?

Answer: Configure PC4 with the correct default gateway address: FE80::3.