Packet Tracer - Troubleshooting Challenge (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 | 172.16.1.62 /26 | N/A |
| R1 | G0/0 | 2001:db8:cafe::1/64 | N/A |
| R1 | G0/0 | fe80::1 | N/A |
| R1 | G0/1 | 172.16.1.126 /26 | N/A |
| R1 | G0/1 | 2001:db8:cafe:1::1/64 | N/A |
| R1 | G0/1 | fe80::1 | N/A |
| R1 | G0/2 | 172.16.1.254 /25 | N/A |
| R1 | G0/2 | 2001:db8:cafe:2::1/64 | N/A |
| R1 | G0/2 | fe80::1 | N/A |
| R1 | S0/0/1 | 10.0.0.2 /30 | N/A |
| R1 | S0/0/1 | 2001:db8:2::1/64 | N/A |
| R1 | S0/0/1 | fe80::1 | N/A |
| Main | S0/0/0 | 209.165.200.226 /30 | N/A |
| Main | S0/0/0 | 2001:db8:1::1/64 | N/A |
| Main | S0/0/0 | fe80::2 | N/A |
| Main | S0/0/1 | 10.0.0.1 /30 | N/A |
| Main | S0/0/1 | 2001:db8:2::2/64 | N/A |
| Main | S0/0/1 | fe80::2 | N/A |
| S1 | VLAN 1 | 172.16.1.61 /26 | 172.16.1.62 |
| S2 | VLAN 1 | 172.16.1.125 /26 | 172.16.1.126 |
| S3 | VLAN 1 | 172.16.1.253 /25 | 172.16.1.254 |
| IT | NIC | 172.16.1.1 /26 | 172.16.1.62 |
| IT | NIC | 2001:db8:cafe::2/64 | fe80::1 |
| IT | NIC | fe80::2 | fe80::1 |
| Marketing | NIC | 172.16.1.65 /26 | 172.16.1.126 |
| Marketing | NIC | 2001:db8:cafe:1::2/64 | fe80::1 |
| Marketing | NIC | fe80::2 | fe80::1 |
| R&D | NIC | 172.16.1.129 /25 | 172.16.1.254 |
| R&D | NIC | 2001:db8:cafe:2::2/64 | fe80::1 |
| R&D | NIC | fe80::2 | fe80::1 |
| Web | NIC | 64.100.0.3 /29 | 64.100.0.1 |
| Web | NIC | 2001:db8:acad::3/64 | fe80::1 |
| Web | NIC | fe80::2 | fe0::1 |

Blank Line, No additional information

# Objectives

* Troubleshoot common issues in a LAN.

# Background / Scenario

After an update to the network, some devices were misconfigured. You must correct the configurations and verify that all the PCs can access the Web server, R1, and the switches. In addition, all PCs should be able to access R1 using SSH. You should verify connectivity for both IPv4 and IPv6 except for the switches.

# Instructions

Router R1 and all the switches have been preconfigured with the following:

* Enable password: **Ciscoenpa55**
* Console password: **Ciscoconpa55**
* Admin username and secret for SSH: **Admin1/Admin1pa55**

Required number of hosts per subnet:

* IT: 50 hosts
* Marketing: 50 hosts
* R&D: 100 hosts

If all configuration problems have been fixed, all devices should be able to ping each other and the web server.

# Configs

## R1 Configuration

interface GigabitEthernet0/1

ip address 172.16.1.126 255.255.255.192

username Admin1 secret Admin1pa55

line vty 0 4

transport input ssh

## S1 Configuration

No Change

## S2 Configuration

interface Vlan1

ip address 172.16.1.125 255.255.255.192

## S3 Configuration

No Change

## IT PC Configuration

Incorrect IPv4 address

Incorrect default gateway

## Marketing PC Configuration

No Change

## R&D PC Configuration

Incorrect IPv6 address

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