**NETWORKS AND COMMUNICATIONS**

**ACTIVITY 17.4. Troubleshooting Challenge**

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**Troubleshooting Challenge**

# **Instructions (Please Read)**

* **Open the corresponding Packet Tracer Activity (17.4. Troubleshooting Challenge.pka)**
* **Once the Packet Tracer Activity is opened, go to Options -> User Profile and provide your Full Name and Email Address. DO NOT FORGET THIS STEP!**
* **Proceed with the activity in Packet Tracer and provide answers in the accompanying Activity Document (17.4. Troubleshooting Challenge.docx).**
* **Once finished, submit this file and the accomplished Packet Tracer activity to the link provided for submission.**

# **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* |

# **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 password 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.