

Packet Tracer - Troubleshooting Challenge - Use Documentation to Solve Issues

# Addressing Table

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Device** | **Interface** | **Device Type (router, switch, host)** | **IP Address** | **Subnet Mask** | **Default Gateway** |
| PC1 | NIC | host | 192.168.1.153 | 255.255.255.0 | 192.168.1.1 |
| PC2 | NIC | host | 192.168.3.50 | 255.255.255.0 | 192.168.3.1 |
| PC3 | NIC | host | 192.168.4.115 | 255.255.255.0 | 192.168.4.1 |
| PC4 | NIC | host | 192.168.4.83 | 255.255.255.128 | 192.168.5.1 |
| PC5 | NIC | host | 192.168.5.227 | 255.255.255.128 | 192.168.5.129 |
| PC6 | NIC | host | 192.168.2.48 | 255.255.255.224 | 192.168.2.33 |
| PC7 | NIC | host | 192.168.2.67 | 255.255.255.252 | 192.168.2.65 |
| Hub | G0/0/0 | router | 192.0.2.1 | 255.255.255.252 | Nil |
| Hub | S0/1/0 | router | 192.168.0.1 | 255.255.255.252 | Nil |
| Hub | S0/1/1 | router | 192.168.0.5 | 255.255.255.252 | Nil |
| Hub | S0/2/0 | router | 192.168.0.9 | 255.255.255.252 | Nil |
| Hub | S0/2/1 | router | 192.168.0.13 | 255.255.255.252 | Nil |
| Branch1 | G0/0/0 | router | 192.168.1.1 | 255.255.255.0 | Nil |
| Branch1 | S0/1/1 | router | 192.168.0.2 | 255.255.255.252 | Nil |
| Branch2 | G0/0/0 | router | 192.168.2.33 | 255.255.255.224 | Nil |
| Branch2 | S0/1/0 | router | 192.168.0.6 | 255.255.255.252 | Nil |
| Factory | G0/0/0 | router | 192.168.3.1 | 255.255.255.0 | Nil |
| Factory | G0/0/1 | router | 192.168.4.1 | 255.255.255.0 | Nil |
| Factory | S0/1/0 | router | 192.168.0.14 | 255.255.255.252 | Nil |
| HQ | G0/0/0.1 | router | 192.168.6.1 | 255.255.255.0 | Nil |
| HQ | G0/0/0.5 | Router | 192.168.5.1 | 255.255.255.128 | Nil |
| HQ | G0/0/0.10 | router | 192.168.5.128 | 255.255.255.128 | Nil |
| HQ | S0/1/0 | Router | 192.168.0.10 | 255.255.255.252 | Nil |
| SWB1 | VLAN1 | switch | 192.168.1.252 | 255.255.255.0 | 192.168.1.1 |

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| --- | --- | --- | --- | --- | --- |
| **Device** | **Interface** | **Device Type (router, switch, host)** | **IP Address** | **Subnet Mask** | **Default Gateway** |
| SWB2 | VLAN1 | switch | 192.168.2.62 | 255.255.255.0 | 192.168.2.1 |
| SWF1 | VLAN1 | switch | 192.168.3.252 | 255.255.255.0 | 192.168.3.1 |
| SWF2 | VLAN1 | switch | 192.168.4.252 | 255.255.255.0 | 192.168.4.1 |
| SWHQ1 | VLAN1 | switch | 192.168.6.252 | 255.255.255.0 | 192.168.6.1 |
| SWHQ2 | VLAN1 | switch | 192.168.6.253 | 255.255.255.0 | 192.168.6.1 |
| SWHQ3 | VLAN1 | switch | 192.168.6.254 | 255.255.255.0 | 192.168.6.1 |

**Objectives**

In this lab, you use network documentation to identify and fix network communications problems.

* Use various techniques and tools to identify connectivity issues.
* Use documentation to guide troubleshooting efforts.
* Identify specific network problems.
* Implement solutions to network communication problems.
* Verify network operation.

# Background / Scenario

In this activity, you will use the documentation that you created in the **Packet Tracer - Troubleshooting Challenge - Document the Network** activity to guide network troubleshooting efforts.

It has been discovered that the network that you worked with in the previous PT activity has developed communication problems. Some hosts are unable to ping other hosts and the internet server. It is your job to determine what the issues are and to locate and repair them.

Network issues could exist in any device. Be sure to check for comprehensive errors:

* Addressing configuration
* Interface activation
* Routing
* NAT

# Instructions

Passwords for all devices are VTY: **cisco**, Enable secret: **class**

# Part 1: Assess Connectivity

All hosts should be able to ping each other and the internet server. Determine if this requirement is met. If not, identify which hosts and networks should be further investigated.

# Part 2: Access Network Devices

From the hosts which have communication problems, use ICMP tools to determine where in the network these problems may be located. From the host PCs, access devices in the network and display configurations and operational status.

# Part 3: Repair the Network

After locating the issues, reconfigure the devices to repair the connectivity problem. Use your documentation from the previous activity to help you.

# Part 4: Document the Issues

Record your issues in the table below.

|  |  |  |
| --- | --- | --- |
| **Device** | **Issue** | **Action** |
| PC1 | PC1 cannot ping to the internet server | Give ip nat inside on interface s0/1/0 |
| PC3 | PC3 cannot ping to any deivce on network | In pc2 using telnet access factory, in that g0/0/1 give no shutdown |
| PC3 | PC23 can ping to PC2 but nothing else and none of the devices can reach PC3 | One ospf line was not configured, updated. it |
| PC5 | Can ping to gateway but nothing else | Default gateway is corrected |
| PC6 and PC7 | Can ping each other but not the internet server | Branch 2 Ip address was wrong on s0/1/0, corrected and now it works. |

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