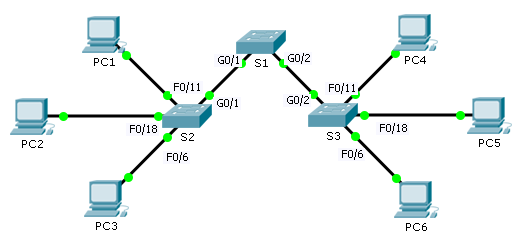
Packet Tracer - Troubleshooting a VLAN Implementation Scenario 1

1. Topology



1. Addressing Table

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Device | Interface | IPv4 Address | Subnet Mask | Switch Port | VLAN |
| PC1 | NIC | 172.17.10.21 | 255.255.255.0 | S2 F0/11 | 10 |
| PC2 | NIC | 172.17.20.22 | 255.255.255.0 | S2 F0/18 | 20 |
| PC3 | NIC | 172.17.30.23 | 255.255.255.0 | S2 F0/6 | 30 |
| PC4 | NIC | 172.17.10.24 | 255.255.255.0 | S3 F0/11 | 10 |
| PC5 | NIC | 172.17.20.25 | 255.255.255.0 | S3 F0/18 | 20 |
| PC6 | NIC | 172.17.30.26 | 255.255.255.0 | S3 F0/6 | 30 |

Objectives

Part 1: Test Connectivity between PCs on the Same VLAN

Part 2: Investigate Connectivity Problems by Gathering Data

Part 3: Implement the Solution and Test Connectivity

1. Scenario

In this activity, you will troubleshoot connectivity problems between PCs on the same VLAN. The activity is complete when PCs on the same VLAN can ping each other. Any solution you implement must conform to the Addressing Table.

1. Test Connectivity between PCs on the Same VLAN

From the command prompton each PC, ping between PCs on the same VLAN.

* + 1. Can PC1 ping PC4? **Tidak**
    2. Can PC2 ping PC5? **Tidak**
    3. Can PC3 ping PC6? **Tidak**

1. Investigate Connectivity Problems by Gathering Data
   1. Verify configuration on the PCs.

Verify if the following configurations for each PC is correct.

* IP address
* Subnet mask
  1. Verify the configuration on the switches.

Verify if the following configurations on the switches are correct.

* Ports assigned to the correct VLANs.
* Ports configured for the correct mode.
* Ports connected to the correct devices.
  1. Document the problem and the solutions.

List the problems and the solutions that will allow these PCs to ping each other. Keep in mind that there could be more than one problem or more than one solution.

PC1 to PC4

* + 1. Explain the connectivity issues between PC1 and PC4.

**PC1 menggunakan VLAN 30 dan bukan VLAN 10. Port G0/1 pada S1 dikonfigurasikan sebagai port akses**

* + 1. Record the necessary actions to correct the issues.

**Keluarkan perintah akses switchlan vlan 10 pada antarmuka F0/11 pada S2. Keluarkan perintah trunk mode switchport pada antarmuka G0/1 untuk S1 dan S2**

PC2 to PC5

* + 1. Explain the connectivity issues between PC2 and PC5.

**PC5 terhubung ke port yang salah, dan F0/18 ditugaskan ke VLAN yang salah.**

* + 1. Record the necessary actions to correct the issues.

**Pindahkan PC5 dari F0/17 ke F0/18 pada S3 dan tetapkan F0/18 ke VLAN 20. Keluarkan perintah trunk mode switchport pada antarmuka G0/1 untuk antarmuka S1 dan S2.**

PC3 to PC6

* + 1. What are the reasons why connectivity failed between the PCs?

**Alamat IP untuk PC6 tidak dikonfigurasi dengan benar. S1 G0/1 dikonfigurasi dalam mode akses. F0/6 pada S3 tidak ditugaskan untuk VLAN**

* + 1. Record the necessary actions to correct the issues.

**Konfigurasikan alamat IP untuk PC6 hingga 172.17.30.26. keluarkan perintah trunk mode switchport pada antarmuka G0/1 untuk S1 dan S2. Tetapkan F0/6 pada S3 hingga VLAN 30.**

1. Implement the Solution and Test Connectivity

Verify PCs on the same VLAN can now ping each other. If not, continue to troubleshoot.

1. Suggested Scoring Rubric

Packet Tracer scores 70 points. Documentation in Part 2, Step 3 is worth 30 points.