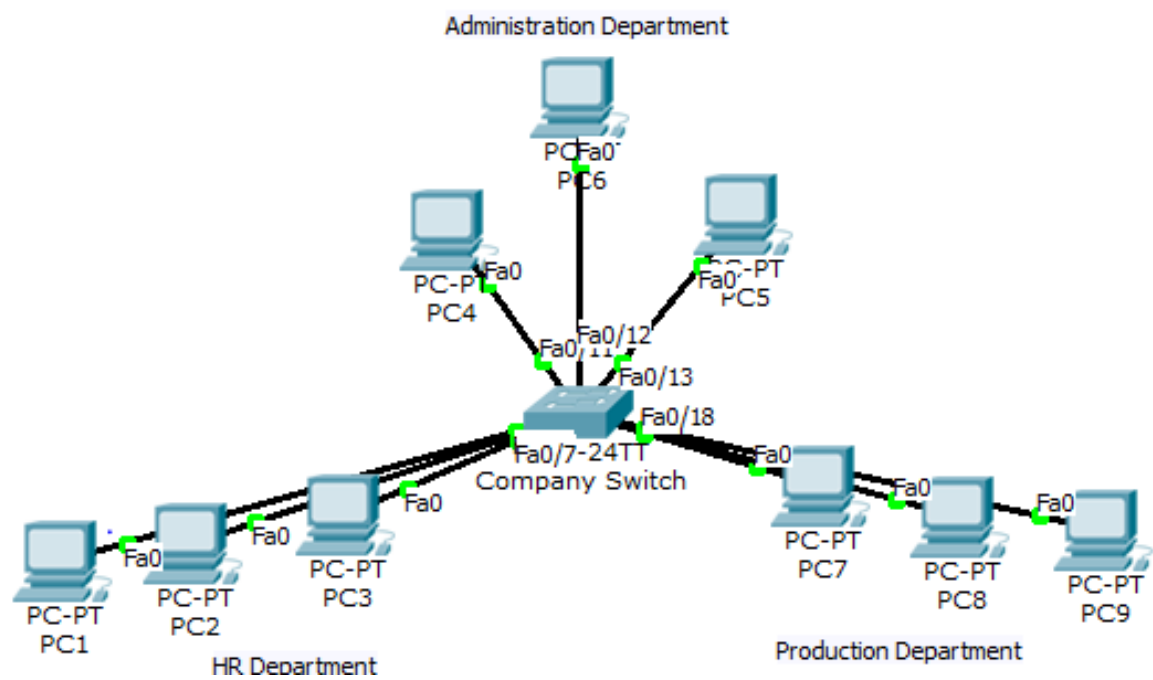


Lab 3.1.1.3: Packet Tracer – Configuring VLANs

- Topology



Addressing Table

| Device | Interface | IP Address | Subnet Mask | VLAN |
|--------|-----------|--------------|---------------|------|
| PC1 | NIC | 172.17.10.21 | 255.255.255.0 | 100 |
| PC2 | NIC | 172.17.20.22 | 255.255.255.0 | 200 |
| PC3 | NIC | 172.17.30.23 | 255.255.255.0 | 300 |
| PC4 | NIC | 172.17.10.24 | 255.255.255.0 | 100 |
| PC5 | NIC | 172.17.20.25 | 255.255.255.0 | 200 |
| PC6 | NIC | 172.17.30.26 | 255.255.255.0 | 300 |
| PC7 | NIC | 172.17.10.27 | 255.255.255.0 | 100 |
| PC8 | NIC | 172.17.20.28 | 255.255.255.0 | 200 |

| | | | | |
|-----|-----|--------------|---------------|-----|
| PC9 | NIC | 172.17.30.29 | 255.255.255.0 | 300 |
|-----|-----|--------------|---------------|-----|

- Objectives

Part 1: Verify the Default VLAN Configuration

Part 2: Configure VLANs

Part 3: Assign VLANs to Ports

Background

VLANs are helpful in the administration of logical groups, allowing members of a group to be easily moved, changed, or added. This activity focuses on creating and naming VLANs, and assigning access ports to specific VLANs.

- View the Default VLAN Configuration
 - Display the current VLANs.

Using the **Company Switch**, issue the command that displays all VLANs configured. By default, all interfaces are assigned to VLAN 1.

AdminSw# _____

- Verify connectivity between PCs on the same network.

Check if the following PC can ping the other PC that shares the same network, mark [x] if there is no connectivity.

1. PC1 can ping PC4 and PC7
2. PC2 can ping PC5 and PC8
3. PC3 can ping PC6 and PC9

What benefit will configuring VLANs to the current switch configuration?

- Configure VLANs
 - Create and name VLANs on AdminSw Switch.

Create the following VLANs. Names are case-sensitive:

4. VLAN 100: Admin
5. VLAN 200: HR
6. VLAN 300: Production
7. VLAN 99: Mgt&Native

AdminSw#(config)# vlan 100

AdminSw#(config-vlan)# name Admin

```
AdminSw#(config-vlan)# vlan 200
AdminSw#(config-vlan)# name HR
AdminSw#(config-vlan)# vlan 300
AdminSw#(config-vlan)# name Production
AdminSw#(config-vlan)# vlan 99
AdminSw#(config-vlan)# name Mgt&Native
```

- Verify the VLAN configuration.

What command is used to display the VLAN name, status, and associated ports on a switch?

AdminSw#_____

- Assign VLANs to Ports
 - Assign VLANs to the active ports on AdminSw Switch.

Assign the VLANs to the following ports:

1. VLAN 100: Fast Ethernet 0/5 to Fast Ethernet 0/10
2. VLAN 200: Fast Ethernet 0/11 to Fast Ethernet 0/15
3. VLAN 300: Fast Ethernet 0/16 to Fast Ethernet 0/20

```
AdminSw(config)# interface fa0/5
AdminSw(config-if)# switchport access vlan 100
AdminSw(config-if)# interface fa0/10
AdminSw(config-if)# switchport access vlan 200
AdminSw(config-if)# interface fa0/15
AdminSw(config-if)# switchport access vlan 300
```

Hint: Use the **range command to configure ports simultaneously**.

- Verify loss of connectivity.

Previously, PCs that shared the same network (switch) could ping each other successfully.

Let's try to Ping PC1 to PC2, do they ping each other? How about PC4 and PC5, PC7 and PC9?
Can they communicate? Why?

Try pinging between PC1 and PC4. PC5 to PC9? What is the result of pinging the PCs? Why?

Rubric for Checking:

1. Topology - 10pts
2. Addressing - 10pts
3. Initial Configuration - 5pts
4. VLAN Configuration - 15pts
5. Verification - 10pts