



By :

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Vlans lab



# Part 1:

## Ping from pc1 to pc4:

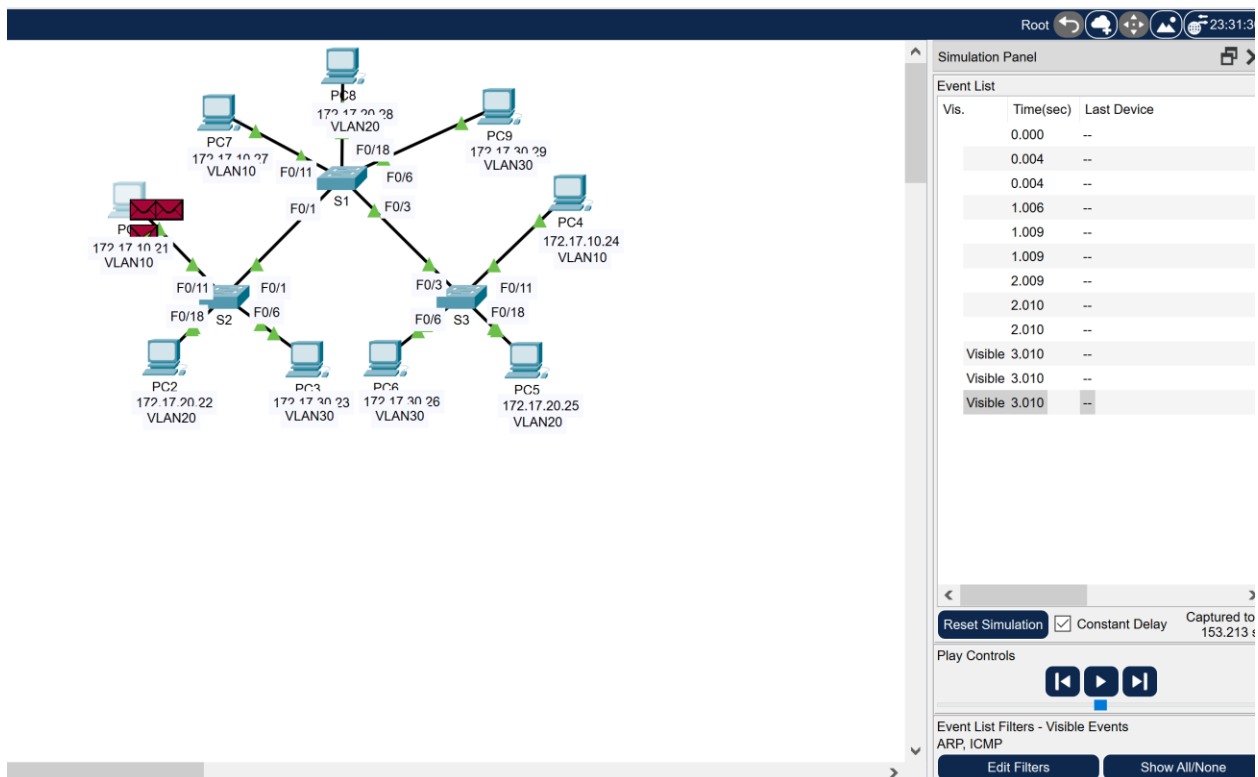
```
C:\>ping 127.17.10.24

Pinging 127.17.10.24 with 32 bytes of data:

Reply from 127.17.10.24: bytes=32 time=4ms TTL=128
Reply from 127.17.10.24: bytes=32 time=3ms TTL=128
Reply from 127.17.10.24: bytes=32 time=1ms TTL=128
Reply from 127.17.10.24: bytes=32 time<1ms TTL=128

Ping statistics for 127.17.10.24:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 4ms, Average = 2ms

C:\>
```



## part 2 : erase all startup and vlans configurations and reload switches

```
S2#erase startup-config
Erasing the nvram filesystem will remove all configuration files! Continue? [confirm]
[OK]
Erase of nvram: complete
%SYS-7-NV_BLOCK_INIT: Initialized the geometry of nvram
S2#de
S2#del
S2#delete v
S2#sho
S2#show v
S2#show vl
S2#show vlan b
S2#show vlan brief
```

VLAN	Name	Status	Ports
1	default	active	Gig0/1, Gig0/2
10	Faculty/Staff	active	Fa0/11, Fa0/12, Fa0/13, Fa0/14 Fa0/15, Fa0/16, Fa0/17
20	Students	active	Fa0/18, Fa0/19, Fa0/20, Fa0/21 Fa0/22, Fa0/23, Fa0/24
30	Guest(Default)	active	Fa0/6, Fa0/7, Fa0/8, Fa0/9 Fa0/10
99	Management&Native	active	Fa0/2, Fa0/3, Fa0/4, Fa0/5
1002	fddi-default	active	
1003	token-ring-default	active	
1004	fddinet-default	active	
1005	trnet-default	active	

```
S2#
S2#dele
S2#delete v
S2#delete vl
S2#delete vla
S2#delete vlan
S2#delete vlan.dat
Delete filename [vlan.dat]?
Delete flash:/vlan.dat? [confirm]
```

```
S2#rel
S2#reload
System configuration has been modified. Save? [yes/no]:
% Please answer 'yes' or 'no'.
System configuration has been modified. Save? [yes/no]:yes
Building configuration...
```

Copy

Paste

VLAN	Name	Status	Ports
1	default	active	Fa0/1, Fa0/2, Fa0/4, Fa0/5 Fa0/6, Fa0/7, Fa0/8, Fa0/9 Fa0/10, Fa0/11, Fa0/12, Fa0/13 Fa0/14, Fa0/15, Fa0/16, Fa0/17 Fa0/18, Fa0/19, Fa0/20, Fa0/21 Fa0/22, Fa0/23, Fa0/24, Gig0/1 Gig0/2
1002	fddi-default	active	
1003	token-ring-default	active	
1004	fddinet-default	active	
1005	trnet-default	active	

```
Switch#
%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on FastEthernet0/3 (1), with S1
FastEthernet0/3 (99).
```

## Step 3:

## After deleting vlans the arb go to all interfaces

**Logical** **Physical** x 466 y 496

**Part 2: Observe Broadcast Traffic without VLANs**

**Step 1: Clear the configurations on all three switches and delete the VLAN database.**

- Return to **Realtime** mode.
- Delete the startup configuration on all 3 switches.  
What command is used to delete the startup configuration of the switches?  
Where is the VLAN file stored in the switches?  
Delete the VLAN file on all 3 switches.  
What command deletes the VLAN file stored in the switches?

**Step 2: Reload the switches.**

Use the **reload** command in privileged EXEC mode to reset all the switches. Wait for the entire link to turn green. To accelerate this process, click **Fast Forward Time** located in the bottom yellow tool bar.

**Step 3: Click Capture/Forward to send ARP requests and pings.**

- After the switches reload and the link lights return to green, the network is ready to forward your ARP and ping traffic.
- Select **Scenario 0** from the drop-down tab to return to Scenario 0.
- From **Simulation** mode, click the **Capture/Forward** button to step through the process. Notice that the switches now forward the ARP requests out all ports, except the port on which the ARP request was received. This default action of switches is why VLANs can improve network performance. Broadcast traffic is contained within each VLAN. When the **Buffer Full** window appears, click the **View Previous Events** button.

**Reflection Questions**

- If a PC in VLAN 10 sends a broadcast message, which devices receive it?
- If a PC in VLAN 20 sends a broadcast message, which devices receive it?
- If a PC in VLAN 30 sends a broadcast message, which devices receive it?
- What happens to a frame sent from a PC in VLAN 10 to a PC in VLAN 30?
- In terms of ports, what are the collision domains on the switch?
- In terms of ports, what are the broadcast domains on the switch?

Time Elapsed: 00:00:00 Completion: 1/1

☒ Dock

**Simulation Panel**

Event List

Vis.	Time(sec)	Last Device
	0.000	—
	0.000	—
	0.000	—
	1.002	—
	1.006	—
	1.006	—
	2.007	—
	2.009	—
	2.009	—
	3.011	—
	Visible 3.015	—
	Visible 3.015	—

Reset Simulation ☒ Constant Delay Captured to: 410.072 s

Play Controls

Event List Filters - Visible Events  
ARP, ICMP