

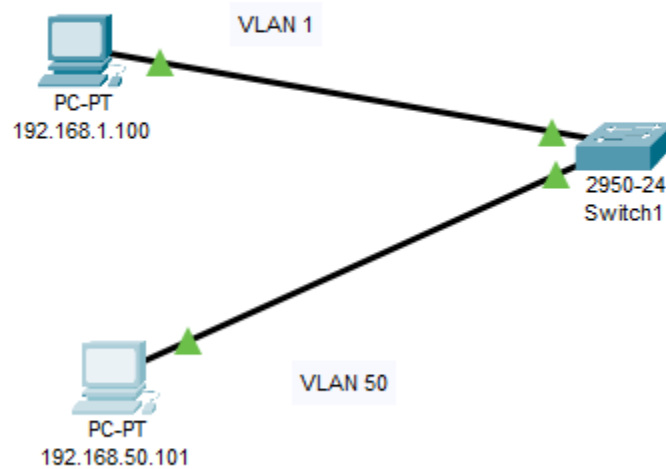
# LAB – 5 & 6

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Reg. No.: 18mis7250

## VLANS AND TRUNKS

18mis7250  
Amit Kumar Sahu



Configuring via terminal:

Switch1

Physical
Config
CLI
Attributes

IOS Command Line Interface

Fa0/16, Fa0/17  
Fa0/20, Fa0/21  
Fa0/24  
50 amit active  
99 mgt active  
1002 fddi-default active  
1003 token-ring-default active  
1004 fddinet-default active  
1005 trnet-default active

Fa0/18, Fa0/19,  
Fa0/22, Fa0/23,  
Fa0/10

VLAN	Type	SAID	MTU	Parent	RingNo	BridgeNo	Stp	BrdgMode
Trans1	Trans2							
1	enet	100001	1500	-	-	-	-	0
50	enet	100050	1500	-	-	-	-	0
99	enet	100099	1500	-	-	-	-	0
1002	fddi	101002	1500	-	-	-	-	0

Ctrl+F6 to exit CLI focus
Copy
Paste

☐ Top

Checking by pinging device:

192.168.1.101



Physical Config **Desktop** Programming Attributes

Command Prompt



```
Packet Tracer PC Command Line 1.0
C:\>ping 192.168.1.100

Pinging 192.168.1.100 with 32 bytes of data:

Reply from 192.168.1.100: bytes=32 time=22ms TTL=128
Reply from 192.168.1.100: bytes=32 time=19ms TTL=128
Reply from 192.168.1.100: bytes=32 time<1ms TTL=128
Reply from 192.168.1.100: bytes=32 time=5ms TTL=128

Ping statistics for 192.168.1.100:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 22ms, Average = 11ms

C:\>ping 192.168.1.100

Pinging 192.168.1.100 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

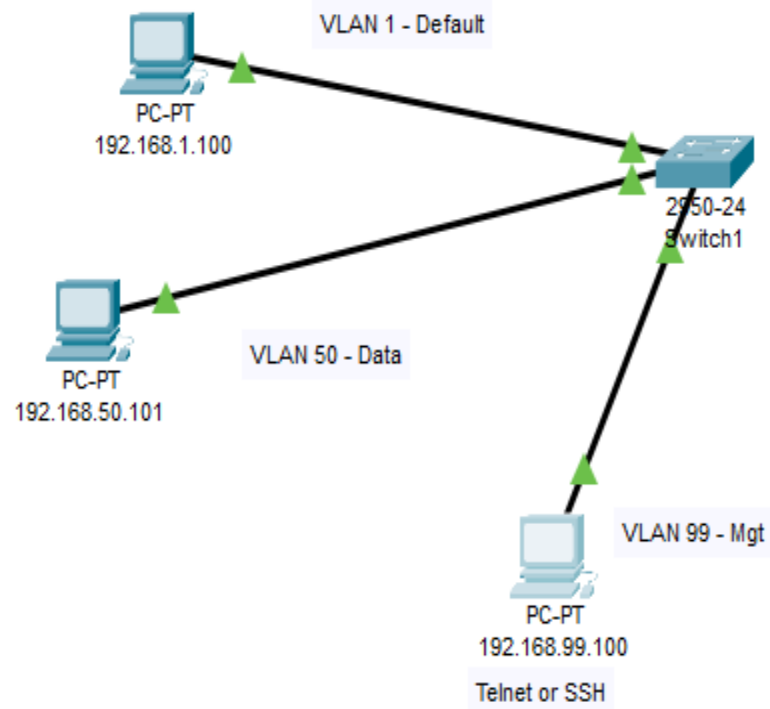
Ping statistics for 192.168.1.100:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>|
```

☐ Top

## Configuring vlan 99 mgt

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Switch1

Physical Config CLI Attributes

IOS Command Line Interface

```
changed state to up

Switch>en
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#int fa0/24
Switch(config-if)#switchport mode access
Switch(config-if)#^
% Invalid input detected at '^' marker.

Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 99
Switch(config-if)#
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Switch#show vlan
```

VLAN Name	Status	Ports
1 default	active	Fa0/1, Fa0/2, Fa0/3, Fa0/4, Fa0/5, Fa0/6, Fa0/7

Switch1

Physical Config CLI Attributes

IOS Command Line Interface

```
Primary Secondary Type Ports
-----
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#interface vlan 99
Switch(config-if)#
%LINK-5-CHANGED: Interface Vlan99, changed state to up

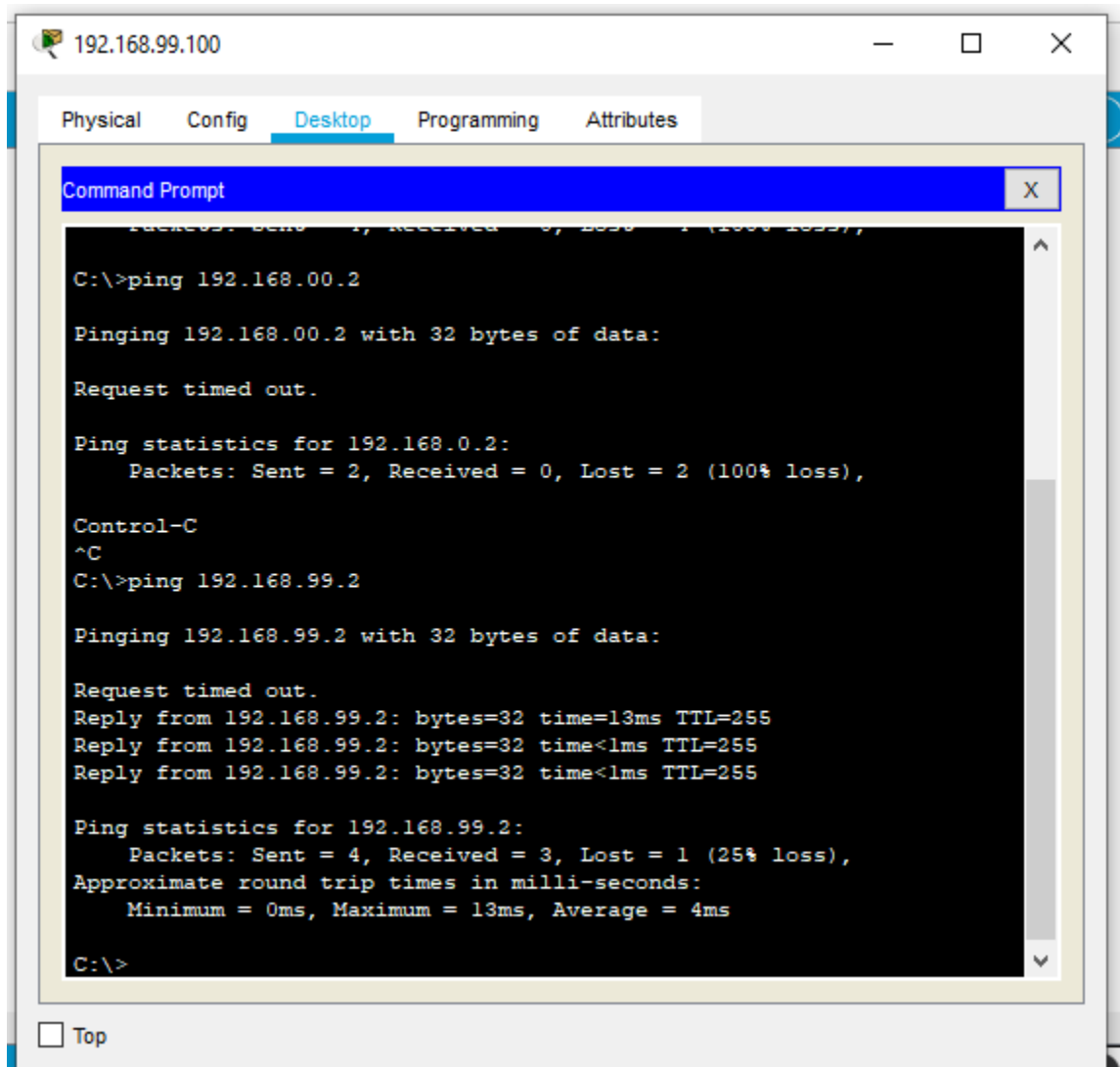
%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan99, changed state to up

Switch(config-if)#ip address 192.168.99.2 255.255.255.0
Switch(config-if)#no shutdown
Switch(config-if)#
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Switch#show run
Building configuration...

Current configuration : 1206 bytes
!
version 12.1
no service timestamps log datetime msec
```

Successfully configured 192.168.99.2



The screenshot shows a network configuration window titled "192.168.99.100" with tabs for Physical, Config, Desktop, Programming, and Attributes. The "Desktop" tab is active, displaying a Command Prompt window. The Command Prompt shows the execution of two ping commands. The first command, "ping 192.168.00.2", results in a "Request timed out." and "Ping statistics for 192.168.0.2: Packets: Sent = 2, Received = 0, Lost = 2 (100% loss)". The second command, "ping 192.168.99.2", results in three successful replies and "Ping statistics for 192.168.99.2: Packets: Sent = 4, Received = 3, Lost = 1 (25% loss), Approximate round trip times in milli-seconds: Minimum = 0ms, Maximum = 13ms, Average = 4ms".

```
C:\>ping 192.168.00.2

Pinging 192.168.00.2 with 32 bytes of data:

Request timed out.

Ping statistics for 192.168.0.2:
    Packets: Sent = 2, Received = 0, Lost = 2 (100% loss),

Control-C
^C
C:\>ping 192.168.99.2

Pinging 192.168.99.2 with 32 bytes of data:

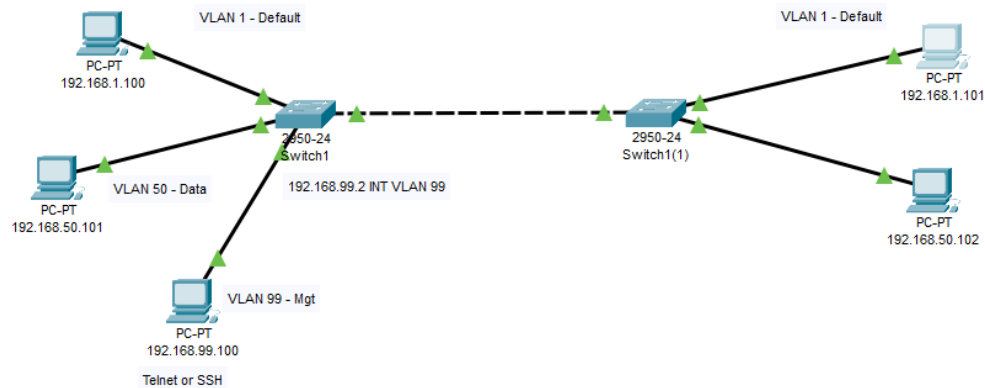
Request timed out.
Reply from 192.168.99.2: bytes=32 time=13ms TTL=255
Reply from 192.168.99.2: bytes=32 time<1ms TTL=255
Reply from 192.168.99.2: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.99.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 13ms, Average = 4ms

C:\>
```

## TRUNKS

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## Checking connection

192.168.1.101

```
Physical Config Desktop Programming Attributes
Command Prompt X

Packet Tracer PC Command Line 1.0
C:\>ping 192.168.100
Ping request could not find host 192.168.100. Please check the name and
try again.
C:\>ping 192.168.1.100

Pinging 192.168.1.100 with 32 bytes of data:

Reply from 192.168.1.100: bytes=32 time<1ms TTL=128
Reply from 192.168.1.100: bytes=32 time<1ms TTL=128
Reply from 192.168.1.100: bytes=32 time<1ms TTL=128
Reply from 192.168.1.100: bytes=32 time=2ms TTL=128

Ping statistics for 192.168.1.100:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 2ms, Average = 0ms
```

## Configuring trunk in both the switches by this command:

Switch1(1)

Physical Config CLI Attributes

IOS Command Line Interface

```
Switch# EN
Switch#en
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#int fa0/1
Switch(config-if)#switchport mode trunk

Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan99, changed state to up

Switch(config-if)#switchport trunk allowed vlan 1-99
Switch(config-if)#end
Switch#
%SYS-5-CONFIG_I: Configured from console by console
```

## Configured Trunk

Switch1

Physical Config CLI Attributes

IOS Command Line Interface

```
Trans1 Trans2
-----
-----

Remote SPAN VLANs
-----

Primary Secondary Type          Ports
-----
Switch# show interface trunk
Port      Mode      Encapsulation  Status      Native vlan
Fa0/1     on        802.1q         trunking    1

Port      Vlans allowed on trunk
Fa0/1     1-99

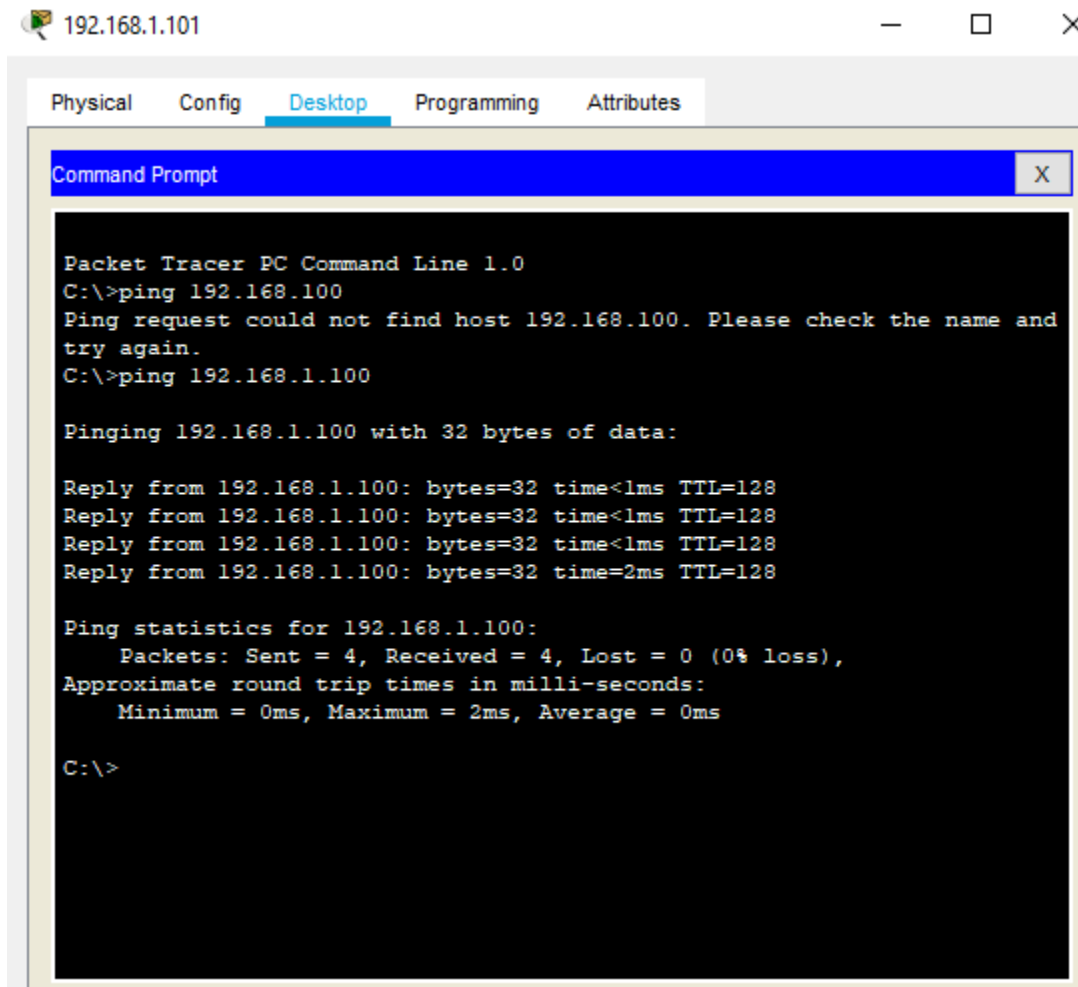
Port      Vlans allowed and active in management domain
Fa0/1     1,50,99

Port      Vlans in spanning tree forwarding state and not pruned
Fa0/1     1,50,99

Switch#
```



## Verifying trunk is working by pinging



The screenshot shows a Packet Tracer PC Command Line window for a device with IP 192.168.1.101. The 'Desktop' tab is selected. The command prompt shows a failed ping to 192.168.100, followed by a successful ping to 192.168.1.100. The output includes ping statistics showing 0% loss and round trip times.

```
Packet Tracer PC Command Line 1.0
C:\>ping 192.168.100
Ping request could not find host 192.168.100. Please check the name and
try again.
C:\>ping 192.168.1.100

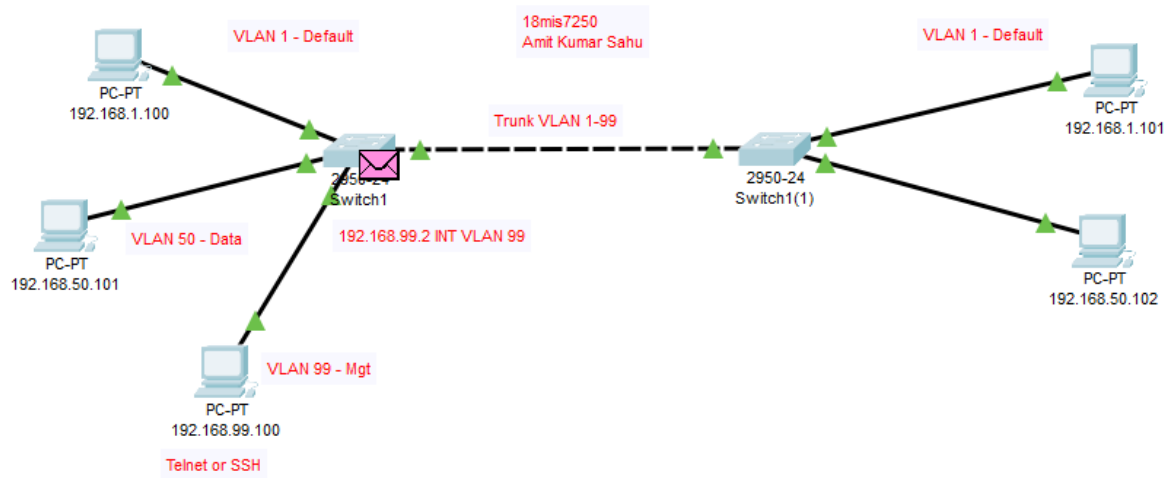
Pinging 192.168.1.100 with 32 bytes of data:

Reply from 192.168.1.100: bytes=32 time<1ms TTL=128
Reply from 192.168.1.100: bytes=32 time<1ms TTL=128
Reply from 192.168.1.100: bytes=32 time<1ms TTL=128
Reply from 192.168.1.100: bytes=32 time=2ms TTL=128

Ping statistics for 192.168.1.100:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 2ms, Average = 0ms

C:\>
```

## Packets Passing Successfully Via Trunk



## Simple VLAN Config With Router and Switch

