

Topology

- Router ISR4331
- Switch 2960
- PC0 (VLAN10)
- PC1 (VLAN20)

IP Address

Device Interface		IP
Router G0/0/0		172.168.10.1/24
Router G0/0/1		172.168.20.1/24
PC0	NIC	172.168.10.2
PC1	NIC	172.168.20.2

Gateway

PC0

172.168.10.1

PC1

172.168.20.1

Switch Configuration

enable
configure terminal

vlan 10
name VLAN10

vlan 20

```
name VLAN20
```

```
interface fa0/1  
switchport mode access  
switchport access vlan 10
```

```
interface fa0/2  
switchport mode access  
switchport access vlan 20
```

```
interface fa0/23  
switchport mode access  
switchport access vlan 10
```

```
interface fa0/24  
switchport mode access  
switchport access vlan 20
```

```
end  
wr
```

Router Configuration

```
enable  
configure terminal
```

```
interface g0/0/0  
ip address 172.168.10.1 255.255.255.0  
no shutdown
```

```
interface g0/0/1  
ip address 172.168.20.1 255.255.255.0  
no shutdown
```

```
end  
wr
```

Lab 2 Router-on-a-Stick

Topology

- Router 2911
- Switch2960
- VLAN10
- VLAN20

IP

Device	IP
G0/0.10	172.168.10.1
G0/0.20	172.168.20.1
PC0	172.168.10.2
PC1	172.168.20.2

Switch

```
enable
configure terminal

vlan 10
name VLAN10

vlan 20
name VLAN20

interface fa0/2
switchport mode access
switchport access vlan 10

interface fa0/3
switchport mode access
switchport access vlan 20

interface fa0/1
switchport mode trunk
```

```
end  
wr
```

Router

```
enable  
configure terminal
```

```
interface g0/0  
no shutdown
```

```
interface g0/0.10  
encapsulation dot1Q 10  
ip address 172.168.10.1 255.255.255.0
```

```
interface g0/0.20  
encapsulation dot1Q 20  
ip address 172.168.20.1 255.255.255.0
```

```
end  
wr
```

Lab 3 Layer 3 Switch Inter-VLAN Routing

Topology

- 3560 Layer3 Switch
 - Switch Left
 - Switch Right
 - Laptop4
 - Laptop5
-

IP Address

Device	IP
VLAN10	172.168.10.1
VLAN20	172.168.20.1
Laptop4	172.168.10.2
Laptop5	172.168.20.2

Multilayer Switch

```
enable
configure terminal

ip routing

vlan 10
name VLAN10

vlan 20
name VLAN20

interface vlan10
ip address 172.168.10.1 255.255.255.0
no shutdown

interface vlan20
ip address 172.168.20.1 255.255.255.0
no shutdown

interface gig0/1
switchport mode trunk

interface gig0/2
switchport mode trunk

end
wr
```

Left Switch

```
enable
configure terminal
```

```
vlan 10
```

```
interface fa0/1
switchport mode trunk
```

```
interface fa0/2
switchport mode access
switchport access vlan 10
```

```
end
wr
```

Right Switch

```
enable
configure terminal
```

```
vlan 20
```

```
interface fa0/1
switchport mode trunk
```

```
interface fa0/2
switchport mode access
switchport access vlan 20
```

```
end
wr
```

Laptop Configuration

Laptop4

```
IP Address
172.168.10.2
```

Subnet Mask
255.255.255.0

Gateway
172.168.10.1

Laptop5

IP Address
172.168.20.2

Subnet Mask
255.255.255.0

Gateway
172.168.20.1

Verify Commands

នៅលើ Switch

show vlan brief
show interfaces trunk

នៅលើ Router

show ip interface brief
show running-config

នៅលើ Layer 3 Switch

show ip interface brief
show ip route
show vlan brief
show interfaces trunk