

Sh mac address-table --- Shows mac address table
Sh interface status --- show the interface status
Switchport mode access --- Change from dynamic
Switchport port-security interface FA0/1 --- Show security settings for a port
Show vlan --- show vlans
Dir flash --- list files on flash
Show vtp status --- show vtp info
Sh cdp neighbors --- show connected switches
Sh spanning-tree vlan 2 --- see spanning tree info
Spanning-tree vlan 2 root primary --- set current switch as root
Show etherchannel summary --- show etherchannel info
Show the ip routes --- show ip route
Show ARP connections --- show arp
Show DHCP info --- show ip dhcp binding
Show the neighbors for the device --- show cdp neighbors
Ip route <gateway> <mask><destination> -- static route setup
Debug ip rip --- debugging for rip
Show ip protocols --- show the OSPF info
Show ip ospf neighbor --- show ospf nodes around
sh ip nat statistics --- shows the ip nat statistics
Sh ntp status --- shows you the status of ntp
Show frame-relay map --- Show the frame relay map
Show frame-relay lmi --- Show the frame relay lmi
Show frame-relay pvc --- show frame relay pvc
Show frame-relay route --- Show frame relay route
debug ip ospf packet turns on debugging for OSPF packets
debug ip ospf adj turns on debugging for adjacency events
debug ip ospf hello turns on debugging for OSPF hello events

VLAN:

vlan 2
Name Engineering
vlan 3
Name Accounting
interface FA0/1
switchport mode access
switchport access vlan 2
interface FA0/2
switchport mode access
switchport access vlan 2
interface FA0/3
switchport mode access
switchport access vlan 3
interface FA0/4
switchport mode access
switchport access vlan 3

TRUNKING

Switch1-conf

interface FA0/8
switchport trunk encapsulation dot1q
switchport mode trunk

Router-conf

interface FastEthernet 1/0
duplex full
interface FastEthernet 1/0.10
encapsulation dot1q 2
ip address 192.168.1.25 255.255.255.0
interface FastEthernet 1/0.20
encapsulation dot1q 3
ip address 192.21.2.25 255.255.255.0

VTP

Switch3-conf

```
vtp mode client
vtp domain Lab
interface FastEthernet 0/7
    switchport mode dynamic desirable
```

Switch2-conf

```
vtp mode transparent
vtp domain Lab
interface FastEthernet 0/8
    switchport mode dynamic desirable
```

Switch1-conf

```
vtp mode server
vtp domain Lab
```

CHANNEL-GROUP

Switch1-conf

```
interface range FastEthernet 0/9
    channel-group 1 mode desirable
    bandwidth 921600
interface range FastEthernet 0/7
    channel-group 1 mode desirable
    bandwidth 1024000
```

VLAN DATABASE

WRouter-conf

```
vlan database
    VLAN 2 name Wired1
    VLAN 3 name Wired2
vtp mode server
vtp domain LAB
interface FastEthernet 2
    switchport mode trunk
interface FastEthernet 4
    switchport access vlan 2
interface FastEthernet 5
    switchport access vlan 3
```

DHCP

Switch2-conf

```
ip dhcp pool Vlan2
    network 192.168.0.0 255.255.255.0
    default-router 192.168.0.1
    dns-server 192.168.0.1
ip dhcp excluded-address 192.168.0.1 192.168.0.2
interface vlan2
    ip address 192.168.0.2 255.255.255.0
    no shutdown
service dhcp
```

Router-conf

```
ip dhcp pool Vlan3
    network 192.168.1.0 255.255.255.0
    default-router 192.168.1.1
    dns-server 192.168.0.1
ip dhcp excluded-address 192.168.1.1 192.168.1.2
interface vlan3
    ip address 192.168.1.2 255.255.255.0
    no shutdown
service dhcp
ip dns server
ip host 192.168.0.3 VM1
ip host 192.168.1.3 VM2
ip domain lookup
```

Wireless

Wrouter-Conf

```
interface Dot11Radio 0
  ssid wireless 01
  vlan 4
  authentication open
station-role root
channel 1
ssid wireless 02
  vlan 5
  authentication open
channel 11
```

STATIC ROUTES

Router-2

```
Interface FastEthernet 2/0
  ip address 192.168.1.17 255.255.255.248
  no shut
Interface Serial 1/1
  ip address 192.168.1.1 255.255.255.252
  no shut
Interface Serial 1/0
  ip address 192.168.1.1 255.255.255.252
  no shut
ip route 192.168.1.24 255.255.255.248 192.168.1.13
```

OSPF

Router-1

```
router ospf 2
  network 192.168.1.0 0.0.0.63 area 0
  network 192.168.1.224 0.0.0.7 area 0
interface FastEthernet 2/0
  ip ospf priority 100
```

Router-2

```
router ospf 2
  network 192.168.1.112 0.0.0.15 area 0
  network 192.168.1.208 0.0.0.15 area 0
  network 192.168.1.224 0.0.0.7 area 0
interface FastEthernet 2/0
  ip ospf priority 90
```

Router-3

```
router ospf 2
  network 192.168.1.192 0.0.0.15 area 0
  network 192.168.1.64 0.0.0.31 area 0
  network 192.168.1.224 0.0.0.7 area 0
interface FastEthernet 2/0
  ip ospf priority 0
```

Router-4

```
router ospf 2
  network 192.168.1.192 0.0.0.15 area 0
  network 192.168.1.64 0.0.0.31 area 0
  network 192.168.1.224 0.0.0.7 area 0
interface FastEthernet 2/0
  ip ospf priority 80
```

OSPF VIRTUAL LINK

Router-7

```
router ospf 2
  network 192.168.1.160 0.0.0.7 area 1
  network 192.168.1.168 0.0.0.3 area 1
  area 0 virtual-link 192.168.1.170
interface Serial 1/0
  ip address 192.168.1.170 255.255.255.252
  ip ospf priority 80
```

ETHER CHANNEL

PS1-conf

```
Interface FastEthernet 1/0/1
  switchport access vlan 10
  switchport mode dot1q-tunnel
  l2protocol-tunnel
  channel-group 1 mode desirable
Interface FastEthernet 1/0/2
  switchport access vlan 10
  switchport mode dot1q-tunnel
  l2protocol-tunnel
  channel-group 1 mode desirable
Interface port-channel 1
  switchport access vlan 10
  switchport mode dot1q-tunnel
  bandwidth 200000
  l2protocol-tunnel
```

CS1-conf

```
Interface FastEthernet 2/0/1
  switchport trunk encapsulation dot1q
  switchport mode trunk
  channel-group 1 mode desirable
Interface FastEthernet 2/0/2
  switchport trunk encapsulation dot1q
  switchport mode trunk
  channel-group 1 mode desirable
Interface port-channel 1
  switchport trunk encapsulation dot1q
  switchport mode trunk
  bandwidth 200000
interface FastEthernet 2/0/3
  switchport access vlan 2
  switchport mode access
```