Enterprise Network Commands

Area 1

Core Switch

enable
Conf t
hostname coreSwitch

vlan 10
name Sales
vlan 20
name IT
vlan 30
name Marketing

interface range fa0/1 - 9
switchport mode access
switchport access vlan 10

interface range fa0/10 - 15
switchport mode access
switchport access vlan 20

interface range fa0/16 - 22
switchport mode access
switchport access vlan 30

interface range f0/23 -24
switchport mode trunk

interface g0/1
switchport mode trunk

end
write memory

Access Switch

enable

```
Conf t
hostname sw1 (sw2)

vlan 10
name Sales
vlan 20
name IT
vlan 30
name Marketing

interface range fa0/1 - 9
switchport mode access
switchport access vlan 10

interface range fa0/10 - 15
switchport mode access
switchport access vlan 20

interface range fa0/16 - 22
switchport mode access
switchport access vlan 30

interface f0/24
switchport mode trunk

end
write memory
```

Router

```
enable
conf t
hostname r1
no ip domain-lookup

ip dhcp pool Sales
network 192.168.1.0 255.255.255.192
default-router 192.168.1.1
dns-server 8.8.8.8

ip dhcp pool IT
network 192.168.1.64 255.255.255.224
default-router 192.168.1.65
dns-server 8.8.8.8
```

```
ip dhcp pool Marketing
network 192.168.1.96 255.255.255.224
default-router 192.168.1.97
dns-server 8.8.8.8
ip dhcp excluded-address 192.168.1.1
ip dhcp excluded-address 192.168.1.65
ip dhcp excluded-address 192.168.1.97

Interface g0/0
No ip address
no shutdown

interface g0/0.10
encapsulation dot1Q 10
ip address 192.168.1.1 255.255.255.192
ip nat inside
no shutdown

interface g0/0.20
encapsulation dot1Q 20
ip address 192.168.1.65 255.255.255.224
ip nat inside
no shutdown

interface g0/0.30
encapsulation dot1Q 30
ip address 192.168.1.97  255.255.255.224
ip nat inside
no shutdown

interface g0/1
ip address 10.0.0.1  255.255.255.252
ip nat outside
no shutdown

access-list 1 permit 192.168.1.0 0.0.0.127
access-list 1 permit 192.168.2.0 0.0.0.127
ip nat inside source list 1 interface GigabitEthernet0/1 overload

router ospf 1
router-id 1.1.1.1
network 192.168.1.0  0.0.0.63 area 1
network 192.168.1.64  0.0.0.31 area 1
```

```
network 192.168.1.96  0.0.0.31 area 1
network 10.0.0.0   0.0.0.3 area 0

end
write memory
```

Area 0 ISP

router

```
enable
conf t
hostname ISP

interface g0/0
Ip address 10.0.0.2 255.255.255.252
no shutdown

interface g0/1
Ip address 10.0.0.6 255.255.255.252
no shutdown
exit

router ospf 1
router-id 10.10.10.10
network 10.0.0.0   0.0.0.3 area 0
network 10.0.0.4   0.0.0.3 area 0

end
write memory
```

Area 2

Core Switch

```
enable
Conf t
hostname coreSwitch

vlan 10
name Sales
vlan 20
```

name IT
vlan 30
name Marketing

interface range fa0/1 - 9
switchport mode access
switchport access vlan 10

interface range fa0/10 - 15
switchport mode access
switchport access vlan 20

interface range fa0/16 - 22
switchport mode access
switchport access vlan 30

interface range f0/23 -24
switchport mode trunk

interface g0/1
switchport mode trunk

end
write memory

Access Switch

enable
Conf t
hostname sw1 (sw2)

vlan 10
name Sales
vlan 20
name IT
vlan 30
name Marketing

interface range fa0/1 - 9
switchport mode access
switchport access vlan 10

interface range fa0/10 - 15
switchport mode access

```
switchport access vlan 20

interface range fa0/16 - 22
switchport mode access
switchport access vlan 30

interface f0/24
switchport mode trunk

end
write memory
```

Router

```
enable
conf t
hostname r2
no ip domain-lookup

ip dhcp pool Sales
network 192.168.2.0 255.255.255.192
default-router 192.168.2.1
dns-server 8.8.8.8

ip dhcp pool IT
network 192.168.2.64 255.255.255.224
default-router 192.168.2.65
dns-server 8.8.8.8

ip dhcp pool Marketing
network 192.168.2.96 255.255.255.224
default-router 192.168.2.97
dns-server 8.8.8.8

ip dhcp excluded-address 192.168.2.1
ip dhcp excluded-address 192.168.2.65
ip dhcp excluded-address 192.168.2.97

Interface g0/0
No ip address
no shutdown

interface g0/0.10
encapsulation dot1Q 10
```

```
ip address 192.168.2.1 255.255.255.192
no shutdown

interface g0/0.20
encapsulation dot1Q 20
ip address 192.168.2.65 255.255.255.224
no shutdown

interface g0/0.30
encapsulation dot1Q 30
ip address 192.168.2.97  255.255.255.224
no shutdown

interface g0/1
ip address 10.0.0.5  255.255.255.252
no shutdown


router ospf 1
router-id 2.2.2.2
network 192.168.2.0  0.0.0.63 area 2
network 192.168.2.64  0.0.0.31 area 2
network 192.168.2.96  0.0.0.31 area 2
network 10.0.0.4   0.0.0.3 area 0

end
write memory
```