Project SOHO Network

Configuration

### ***Switch - SW1***

enable

configure terminal

hostname SW1

VLAN 10

name Administration

interface range Fa0/2-10

switchport access VLAN 10

VLAN 20

name HR

interface range Fa0/11-20

switchport access VLAN 20

exit

interface Fa0/1

switchport mode trunk

do write

### ***Switch - SW2***

enable

configure terminal

hostname SW2

VLAN 30

name IT

interface range Fa0/2-15

switchport access VLAN 30

VLAN 40

name Guest

interface range Fa0/20-24

switchport access VLAN 40

exit

interface Fa0/1

switchport mode trunk

exit

do write

### ***Router - ISP***

enable

configure terminal

hostname ISP

interface Fa0/0

ip address 15.0.0.2 255.0.0.0

no shutdown

interface loopback 1

ip address 3.3.3.3 255.0.0.0

exit

do write

### ***Router - HQ***

enable

configure terminal

hostname HQ

interface range Fa0/0-1

no shutdown

exit

**For ISP**

interface Fa1/0

ip address 15.0.0.1 255.0.0.0

no shutdown

ip route 0.0.0.0 0.0.0.0 15.0.0.2

**Inter-VLAN Connection - Router on a Stick**

interface Fa0/0.10

encapsulation dot1q 10

ip address 192.168.10.1 255.255.255.192

interface Fa0/0.20

encapsulation dot1q 20

ip address 192.168.10.65 255.255.255.192

interface Fa0/1.30

encapsulation dot1q 30

ip address 192.168.10.129 255.255.255.192

interface Fa0/1.40

encapsulation dot1q 40

ip address 192.168.10.193 255.255.255.192

**DHCP**

#VLAN 10

ip dhcp pool VLAN10

network 192.168.10.0 255.255.255.192

default 192.168.10.1

ip dhcp excluded-address 192.168.10.0 192.168.10.10

#VLAN 20

ip dhcp pool VLAN20

network 192.168.10.64 255.255.255.192

default 192.168.10.65

ip dhcp excluded-address 192.168.10.64 192.168.10.70

#VLAN 30

ip dhcp pool VLAN30

network 192.168.10.128 255.255.255.192

default 192.168.10.129

ip dhcp excluded-address 192.168.10.128 192.168.10.130

#VLAN 40

ip dhcp pool VLAN40

network 192.168.10.192 255.255.255.192

default 192.168.10.193

ip dhcp excluded-address 192.168.10.192 192.168.10.200

do write

**ACL**

**Extended ACL**

access-list 110 deny ip 192.168.10.192 0.0.0.63 192.168.10.0 0.0.0.63

access-list 110 deny ip 192.168.10.192 0.0.0.63 192.168.10.64 0.0.0.63

access-list 110 deny ip 192.168.10.192 0.0.0.63 192.168.10.128 0.0.0.63

access-list 110 permit ip 192.168.10.192 0.0.0.63 any

interface Fa0/1.40

ip access-group 110 in

**NAT**

access-list 10 permit 192.168.10.0 0.0.0.63

access-list 10 permit 192.168.10.64 0.0.0.63

access-list 10 permit 192.168.10.128 0.0.0.63

access-list 10 permit 192.168.10.192 0.0.0.63

ip nat inside source list 10 interface Fa1/0 overload

interface Fa0/0

ip nat inside

interface Fa0/0.10

ip nat inside

interface Fa0/0.20

ip nat inside

interface Fa0/1

ip nat inside

interface Fa0/1.30

ip nat inside

interface Fa0/1.40

ip nat inside

interface Fa1/0

ip nat outside

do write