========Hostname/Password setup========

1.hostname:

hostname router1

2. console password:

line console 0

password cisco

login

end

3. telnet/ssh password:

line vty 0 15

password cisco

login

end

4. exec password:

enable secret cisco

exit

5. banner msg:

banner motd #write msg here#

============VLAN============

vlan 10

name cse

vlan 20

name me

vlan 99

name management

int fa0/5

switchport mode access

switchport access vlan 10

int fa0/7

switchport mode access

switchport access vlan 20

int g0/1

switchport mode trunk

switchport trunk native vlan 99

switchport trunk allowed vlan 10,20,99

============Assign ip to switch============

int vlan 99

ip address 192.168.99.2 255.255.255.0

no shutdown

ip default-gateway 192.168.99.1

============Router config============

Both router: ip route 0.0.0.0 0.0.0.0 s0/0/0

1. R2 (server router)

int s0/0/0

ip address 3.1.1.2 255.255.255.252

no shutdown

int g0/0

ip address 192.168.100.1 255.255.255.0

no shutdown

2. R1 (border/host pc side router)

int g0/0.10

encapsulation dot1q 10

ip address 192.168.10.1 255.255.255.0

int g0/0.20

encapsulation dot1q 20

ip address 192.168.20.1 255.255.255.0

int g0/0.99

encapsulation dot1q 99

ip address 192.168.99.1 255.255.255.0

int g0/0

no shutdown

int s0/0/0

ip address 3.1.1.1 255.255.255.252

clock rate 64000

no shutdown

=============ACL=============

access-list 101 deny tcp host 192.168.10.5 host 192.168.100.5 eq www

access-list 101 deny tcp host 192.168.10.5 host 192.168.100.6 eq ftp

access-list 101 deny tcp host 192.168.20.5 host 192.168.100.5 eq www

access-list 101 permit tcp host 192.168.20.5 host 192.168.100.6 eq ftp

access-list 101 permit ip any any

int g0/0.10

ip access-group 101 in

int g0/0.20

ip access-group 101 in

=============NAT=============

int g0/0

ip nat inside

int g0/1

ip nat inside

int s0/0/0

ip nat outside

1. PAT

ip nat pool buet 125.1.1.8 125.1.7.11 netmask 255.255.255.224

access-list 1 permit 192.168.80.0   0.0.0.255

ip nat inside source list 1 pool buet overload

2. Dynamic NAT

ip nat pool BUET-Pool 209.165.200.8 209.165.200.11 netmask 255.255.255.224

access-list 1 permit 192.168.10.0   0.0.0.255

access-list 1 permit 192.168.20.0   0.0.0.255

ip nat inside source list 1 pool BUET-Pool

3. Static NAT

ip nat inside source static 192.168.10.254 209.165.201.5

=============Show commands=============

1. sh vlan br

2. sh ip int br

3. sh ip nat translations

4. sh ip nat statistics

5. sh access-lists