COMMANDS

BASIC CONFIG:

en

conf t

hostname DMZ

line console 0

password cisco

login

exec-timeout 3 0

exit

enable password cisco

banner motd #UNAUTHORISED ACCESS IS PROHIBITED !!!#

service password-encryption

username cisco password cisco

ip domain-name cisco.com

crypto key generate rsa general-keys modulus 1024

do wr

exit

VLAN FOR MULTILAYER SWITCH:

vlan 10

name Administration

vlan 20

name IT

vlan 30

name Library

vlan 40

name Classroom

vlan 199

name null

ex

int range fa0/1-2

switchport mode trunk

exit

int range fa0/3-24

switchport mode access

switchport access vlan 10

exit

int range fa0/3-24

switchport mode access

switchport access vlan 20

exit

int range fa0/3-24

switchport mode access

switchport access vlan 30

exit

int range fa0/3-24

switchport mode access

switchport access vlan 40

exit

int range gig0/1-2

switchport mode access

switchport access vlan 199

shut

exit

do wr

FAST PORT FOR SWITCH, FIREWALL AND MULTLAYER SWICH:

int range fa0/3-24

spanning-tree portfast

spanning-tree bpduguard enable

exit

do wr

int range fa0/23-24

channel-group 1 mode active

ex

interface Port-channel 1

SWITCHPORT TRUNK ENCAPSULATION DOT1Q

switchport mode trunk

ex

do wr

FIREWALL CONFIGURATION:

object network INSIDE1-OUTSIDE

subnet 192.168.10.0 255.255.255.0

nat (INSIDE1, OUTSIDE) dynamic interface

object network INSIDE1a-OUTSIDE

subnet 192.168.10.0 255.255.255.0

nat (INSIDE2,OUTSIDE) dynamic interface

object network INSIDE2-OUTSIDE

subnet 192.168.20.0 255.255.255.0

nat (INSIDE1, OUTSIDE) dynamic interface

object network INSIDE2a-OUTSIDE

subnet 192.168.20.0 255.255.255.0

nat (INSIDE2,OUTSIDE) dynamic interface

object network INSIDE3-OUTSIDE

subnet 192.168.30.0 255.255.255.0

nat (INSIDE1, OUTSIDE) dynamic interface

object network INSIDE3a-OUTSIDE

subnet 192.168.30.0 255.255.255.0

nat (INSIDE2,OUTSIDE) dynamic interface

object network INSIDE4-OUTSIDE

subnet 192.168.40.0 255.255.255.0

nat (INSIDE1, OUTSIDE) dynamic interface

object network INSIDE4a-OUTSIDE

subnet 192.168.40.0 255.255.255.0

nat (INSIDE2,OUTSIDE) dynamic interface

access-list RES-Access extended permit icmp any any

access-list RES-Access extended permit udp any any eq 67

access-list RES-Access extended permit udp any any eq 68

access-list RES-Access extended permit udp any any eq 53

access-list RES-Access extended permit tcp any any eq 53

access-list RES-Access extended permit tcp any any eq 80

access-list RES-Access extended permit tcp any any eq 25

access-list RES-Access extended permit tcp any any eq 20

access-list RES-Access extended permit tcp any any eq 21

access-group RES-Access in interface DMZ

access-group RES-Access in interface OUTSIDE

wr mem

OSPF FOR FIREWALL:

router ospf 15

router-id 4.3.2.1

log-adjacency-changes

network 105.100.50.0 255.255.255.0 area 0

network 10.20.20.0 255.255.255.224 area 0

network 10.20.20.32 255.255.255.252 area 0

network 10.20.20.36 255.255.255.252 area 0

DHCP FOR SWITCHES

int vlan 10

ip add 192.168.10.2 255.255.255.0

ip helper-address 10.20.20.5

standby 10 ip 192.168.10.1

ex

int vlan 20

ip add 192.168.20.2 255.255.255.0

ip helper-address 10.20.20.5

standby 20 ip 192.168.20.1

ex

int vlan 30

ip add 192.168.30.2 255.255.255.0

ip helper-address 10.20.20.5

standby 30 ip 192.168.30.1

ex

int vlan 40

ip add 192.168.40.2 255.255.255.0

ip helper-address 10.20.20.5

standby 40 ip 192.168.40.1

ex

SSH PORT SECURITY

int range fastEthernet 0/3-24

switchport mode access

switchport port-security

switchport port-security maximum 2

switchport port-security violation restrict

switchport port-security mac-address sticky

ex

do wr

DISABLE THE UNUSED PORTS

int range fastEthernet 0/9 - 24

shutdown

ex

do wr

ACL FOR SWITCHES

access-list 100 permit ip 192.168.10.0 0.0.0.255 192.168.20.0 0.0.0.255

access-list 100 permit ip 192.168.10.0 0.0.0.255 192.168.30.0 0.0.0.255

access-list 100 permit ip 192.168.10.0 0.0.0.255 192.168.40.0 0.0.0.255

access-list 100 deny ip any any

access-list 100 permit ip 192.168.20.0 0.0.0.255 192.168.10.0 0.0.0.255

access-list 100 permit ip 192.168.20.0 0.0.0.255 192.168.30.0 0.0.0.255

access-list 100 permit ip 192.168.20.0 0.0.0.255 192.168.40.0 0.0.0.255

access-list 100 deny ip any any

access-list 100 permit ip 192.168.30.0 0.0.0.255 192.168.20.0 0.0.0.255

access-list 100 permit ip 192.168.30.0 0.0.0.255 192.168.10.0 0.0.0.255

access-list 100 permit ip 192.168.30.0 0.0.0.255 192.168.40.0 0.0.0.255

access-list 100 deny ip any any

access-list 100 permit ip 192.168.40.0 0.0.0.255 192.168.20.0 0.0.0.255

access-list 100 permit ip 192.168.40.0 0.0.0.255 192.168.30.0 0.0.0.255

access-list 100 permit ip 192.168.40.0 0.0.0.255 192.168.10.0 0.0.0.255

access-list 100 deny ip any any