**default route method**

ip route 0.0.0.0 0.0.0.0 192.168.102.90

**-------------------------------------------isp 2**

int se0/3/0

ip add 195.136.17.9 255.255.255.252

no sh

int se0/3/1

ip add 195.136.17.6 255.255.255.252

no sh

**---------------------ospf**

router ospf 10

router-id 5.5.5.5

net 195.136.17.4 0.0.0.3 area 0

net 195.136.17.8 0.0.0.3 area 0

**-------------------------------------------isp 1**

int se0/3/0

ip add 195.136.17.2 255.255.255.252

no sh

int se0/3/1

ip add 195.136.17.14 255.255.255.252

no sh

================ospf

router ospf 10

router-id 6.6.6.6

net 195.136.17.12 0.0.0.3 area 0

net 195.136.17.0 0.0.0.3 area 0

**for all access layer switch:**

en

config t

int range fa0/1-2

switchport mode trunk

**console and enable configuration for every one switch and router:**

line console 0

password cisco

login

enable secret cisco

no ip domain lookup

service password-encryption

**------------------------------------------------ssh config**

ip domain-name cisco.net

username cisco password cisco

line vty 0 15

login local

transport input ssh

crypto key generate rsa

**switch1**

hostname mlocks

banner motd #this is the sales switch of the access layer#

vlan 20

name mlocks

int range fa0/3-24

switchport mode access

switchport access vlan 20

**switch2**

hostname mer

banner motd #this is the hr switch of the access layer#

vlan 30

name mer

int range fa0/3-24

switchport mode access

switchport access vlan 30

**swictch3**

hostname mrm

banner motd #this is the finance switch of the access layer#

vlan 40

name mrm

int range fa0/3-24

switchport mode access

switchport access vlan 40

**switch4**

hostname it

banner motd #this is the sdministration switch of the access layer#

vlan 50

name it

int range fa0/3-24

switchport mode access

switchport access vlan 50

**switch5**

hostname cs

banner motd #this is the ict switch of the access layer#

vlan 60

name cs

int range fa0/3-24

switchport mode access

switchport access vlan 60

**swictch6**

hostname nso

banner motd #this is the server-room switch of the access layer#

vlan 70

name nso

int range fa0/3-24

switchport mode access

switchport access vlan 70

**swictch7**

hostname hl

banner motd #this is the server-room switch of the access layer#

vlan 80

name hl

int range fa0/3-24

switchport mode access

switchport access vlan 80

**swictch8**

hostname hr

banner motd #this is the server-room switch of the access layer#

vlan 90

name hr

int range fa0/3-24

switchport mode access

switchport access vlan 90

**swictch9**

hostname mk

banner motd #this is the server-room switch of the access layer#

vlan 100

name mk

int range fa0/3-24

switchport mode access

switchport access vlan 100

**swictch10**

hostname fin

banner motd #this is the server-room switch of the access layer#

vlan 110

name mk

int range fa0/3-24

switchport mode access

switchport access vlan 110

**swictch11**

hostname gwa

banner motd #this is the server-room switch of the access layer#

vlan 120

name gwa

int range fa0/3-24

switchport mode access

switchport access vlan 120

**---------------------------------------------switchport security on server site**

int range fa0/2-24

switchport port-security maximum 1

switchport port-security mac-address sticky

switchport port-security violation shutdown

----------------------------------------------------------------------------vlan creation

vlan 130

name server-site

int fa0/1

switchport mode trunk

int range fa0/2-24

switchport mode access

switchport access vlan 130

**multilayer switch of head quartor :**

hostname hq-multilayer-switch1

banner motd #this is the multi layer switch 1 of the head quartor r#

int range fa0/1-5

switchport mode trunk

int gig0/1

no switchport

**---------------------------inter vlan**

vlan 20

vlan 30

vlan 40

vlan 50

vlan 60

**-----------------------------------intervlan**

int vlan 20

no sh

ip add 192.168.100.1 255.255.255.192

ip helper-address 192.168.102.66

int vlan 30

no sh

ip add 192.168.100.65 255.255.255.192

ip helper-address 192.168.102.66

int vlan 40

no sh

ip add 192.168.100.129 255.255.255.192

ip helper-address 192.168.102.66

int vlan 50

no sh

ip add 192.168.100.193 255.255.255.192

ip helper-address 192.168.102.66

int vlan 60

no sh

ip add 192.168.101.1 255.255.255.192

ip helper-address 192.168.102.66

**-----------ip of the interface**

**multi level switch 1**

int gig0/1

ip add 192.168.102.81 255.255.255.252

no sh

**multi level switch 2**

int gig0/1

ip add 192.168.102.85 255.255.255.252

no sh

**-----------------------------------------------------------ospf**

ip routing

router ospf 10

router-id 1.1.1.1

net 192.168.100.0 0.0.0.63 area 0

net 192.168.100.64 0.0.0.63 area 0

net 192.168.100.128 0.0.0.63 area 0

net 192.168.100.192 0.0.0.63 area 0

net 192.168.101.0 0.0.0.63 area 0

net 192.168.102.80 0.0.0.3 area 0

router-id 2.2.2.2 for the multilayer switch 2 of hq

above 5 same network and last is

net 192.168.102.84 0.0.0.3 area 0

**multilayer switch 2**

hostname ml-switch-branch

banner motd #this is the multi layer switch of the branch #

int range fa0/1-6

switchport mode trunk

int gig0/1

no switchport

**---------------------------inter vlan**

vlan 70

vlan 80

vlan 90

vlan 100

vlan 110

vlan 120

**================intervlan**

int vlan 70

no sh

ip add 192.168.101.129 255.255.255.224

ip helper-address 192.168.102.66

int vlan 80

no sh

ip add 192.168.101.161 255.255.255.224

ip helper-address 192.168.102.66

int vlan 90

no sh

ip add 192.168.101.193 255.255.255.224

ip helper-address 192.168.102.66

int vlan 100

no sh

ip add 192.168.101.225 255.255.255.224

ip helper-address 192.168.102.66

int vlan 110

no sh

ip add 192.168.102.1 255.255.255.224

ip helper-address 192.168.102.66

int vlan 120

no sh

ip add 192.168.102.33 255.255.255.224

ip helper-address 192.168.102.66

**-----------ip of the interface**

**multi level switch 1**

int gig0/1

ip add 192.168.102.89 255.255.255.252

no sh

**multi level switch 2**

int gig0/1

ip add 192.168.102.93 255.255.255.252

no sh

**--------------------------ospf**

ip routing

router ospf 10

router-id 3.3.3.3

net 192.168.101.128 0.0.0.31 area 0

net 192.168.101.160 0.0.0.31 area 0

net 192.168.101.192 0.0.0.31 area 0

net 192.168.101.224 0.0.0.31 area 0

net 192.168.102.0 0.0.0.31 area 0

net 192.168.102.32 0.0.0.31 area 0

net 192.168.102.88 0.0.0.3 area 0

router-id 4.4.4.4 for the multilayer switch 2 of hq

above 5 same network and last is

net 192.168.102.92 0.0.0.3 area 0

**router1: of core layer**

hostname router1

banner motd #this is the router 1 of the access layer#

int gig0/0

ip add 192.168.102.82 255.255.255.252

no sh

int gig0/1

ip add 192.168.102.86 255.255.255.252

no sh

int se0/3/0

ip add 192.168.102.97 255.255.255.252

no sh

int se0/3/1

ip add 195.136.17.1 255.255.255.252

no sh

int se0/2/0

ip add 195.136.17.5 255.255.255.252

no sh

**-----------------------ospf**

router ospf 10

router-id 7.7.7.7

net 195.136.17.4 0.0.0.3 area 0

net 195.136.17.0 0.0.0.3 area 0

net 192.168.102.96 0.0.0.3 area 0

net 192.168.102.80 0.0.0.3 area 0

net 192.168.102.84 0.0.0.3 area 0

net 192.168.102.64 0.0.0.3 area 0

**============================net**

ip nat inside source list 1 int se0/2/0 overload

ip nat inside source list 1 int se0/3/1 overload

access-list 1 permit 192.168.100.0 0.0.0.63

access-list 1 permit 192.168.100.64 0.0.0.63

access-list 1 permit 192.168.100.128 0.0.0.63

access-list 1 permit 192.168.100.192 0.0.0.63

access-list 1 permit 192.168.101.0 0.0.0.63

int range gig0/0-1

ip nat inside

int se0/3/1

ip nat outside

int se0/2/0

ip nat outside

**router2:**

hostname router2

banner motd #this is the router 2 of the access layer#

--------------------------------------ip add

int gig0/0

ip add 192.168.102.94 255.255.255.252

no sh

int gig0/1

ip add 192.168.102.90 255.255.255.252

no sh

int se0/3/0

ip add 195.136.17.13 255.255.255.252

no sh

int se0/3/1

ip add 195.136.17.9 255.255.255.252

no sh

int se0/3/0

ip add 192.168.102.98 255.255.255.252

no sh

**-----------------------------ospf**

router ospf 10

router-id 8.8.8.8

net 195.136.17.8 0.0.0.3 area 0

net 195.136.17.12 0.0.0.3 area 0

net 192.168.102.96 0.0.0.3 area 0

net 192.168.102.88 0.0.0.3 area 0

net 192.168.102.92 0.0.0.3 area 0

**============================net**

ip nat inside source list 1 int se0/3/0 overload

ip nat inside source list 1 int se0/3/1 overload

access-list 1 permit 192.168.101.128 0.0.0.31

access-list 1 permit 192.168.101.160 0.0.0.31

access-list 1 permit 192.168.101.192 0.0.0.31

access-list 1 permit 192.168.101.242 0.0.0.31

access-list 1 permit 192.168.102.0 0.0.0.31

access-list 1 permit 192.168.102.32 0.0.0.31

int range gig0/0-1

ip nat inside

int se0/3/0

ip nat outside

int se0/3/1

ip nat outside

**--------------------------ipsec vpn:**

**foe the both internal routers:**

license boot module c2900 technology-package securityk9

yes

do reload

yes

remaining