

Graduation Project

Implementing a Secure Multi-Branch Office Network

File Configurations

**Cisco Cybersecurity Engineer
(ONL2_ISS5_S2)**

Made by

[Ahmed Mohamed Gharib](#)

[Abdul Rahman Mohammed Hamed](#)

[Hassan Muhammed Abdelnabi](#)

[Muhammed Samy Elhamzawy](#)

[Muhammed Mustafa Gomaa](#)

Supervised by

Eng. Amr Adel

Agenda

Page No	Device
4	HQ-Edge1
7	HQ-Edge2
9	HQ-NGFW1
11	HQ-NGFW2
13	HQ-DMZ-MLS
16	HQ-CORE-MLS1
19	HQ-CORE-MLS2
21	HQ-DIS-MLS1
27	HQ-DIS-MLS2
32	HQ-ACC-SW1
36	HQ-ACC-SW2
39	HQ-ACC-SW3
42	HQ-ACC-SW4
45	HQ-ACC-SW5
48	HQ-ACC-SW6
52	HQ-ACC-SW7
54	HQ-ACC-SW
57	HQ-SW-CAM-F1
60	HQ-SW-CAM-F2
63	HQ-SW-CAM-F3
66	HQ-SW-CAM-F4
69	B1-EdgeRouter
71	B1-NGFW
73	B1-DMZ-MLS
76	B1-CORE-MLS1
81	B1-CORE-MLS2
85	B1-ACC-SW1
89	B1-ACC-SW2
92	B1-ACC-SW3



No	Description
1	Interfaces IP Addresses
	<p>Configuration</p> <p>HQ-Egde1(config)#interface Loopback1 HQ-Egde1(config-if)#ip address 1.1.1.8 255.255.255.255</p> <p>HQ-Egde1(config)#interface GigabitEthernet0/0/0 HQ-Egde1(config-if)#no shutdown HQ-Egde1(config-if)#ip address 172.16.0.25 255.255.255.252 HQ-Egde1(config-if)#ip ospf authentication message-digest HQ-Egde1(config-if)#ip ospf message-digest-key 1 md5 DEPI HQ-Egde1(config-if)#ip nat inside</p> <p>HQ-Egde1(config)#interface GigabitEthernet0/0/1 HQ-Egde1(config-if)#no shutdown HQ-Egde1(config-if)#ip address 172.16.0.34 255.255.255.252 HQ-Egde1(config-if)#ip ospf authentication message-digest HQ-Egde1(config-if)#ip ospf message-digest-key 1 md5 DEPI HQ-Egde1(config-if)#ip nat inside</p> <p>HQ-Egde1(config)#interface GigabitEthernet0/0/2 HQ-Egde1(config-if)#ip address 50.50.20.1 255.255.255.248 HQ-Egde1(config-if)#ip nat outside HQ-Egde1(config-if)#crypto map VPN-B1</p>
2	OSPF Routing
	<p>Configuration</p> <p>HQ-Egde1(config)#router ospf 1 HQ-Egde1(config-router)#router-id 1.1.1.8 HQ-Egde1(config)#redistribute static subnets HQ-Egde1(config)#passive-interface GigabitEthernet0/0/2 HQ-Egde1(config-router)#area 0 authentication message-digest HQ-Egde1(config)#network 172.16.0.24 0.0.0.3 area 0</p>

	HQ-Egde1(config)#network 172.16.0.32 0.0.0.3 area 0
3	Default Route & Static Route
	Configuration HQ-Egde1(config)#ip route 0.0.0.0 0.0.0.0 50.50.20.22 HQ-Egde1(config)#ip route 192.168.71.0 255.255.255.0 50.50.20.2 HQ-Egde1(config)#ip route 192.168.61.0 255.255.255.0 50.50.20.2 HQ-Egde1(config)#ip route 192.168.81.0 255.255.255.0 50.50.20.2 HQ-Egde1(config)#ip route 192.168.31.0 255.255.255.0 50.50.20.2 HQ-Egde1(config)#ip route 195.1.1.0 255.255.255.240 172.16.0.26 HQ-Egde1(config)#ip route 195.1.1.0 255.255.255.240 172.16.0.33 HQ-Egde1(config)#ip route 192.168.41.0 255.255.255.0 50.50.20.2 HQ-Egde1(config)#ip route 10.1.0.0 255.255.255.0 50.50.20.2
4	PAT
	Configuration HQ-Egde1(config)#ip access-list standard NAT HQ-Egde1(config-std-nacl)#deny udp host 195.1.1.3 eq domain 192.168.0.0 0.0.255.255 HQ-Egde1(config-std-nacl)#deny ip 192.168.0.0 0.0.255.255 192.168.0.0 0.0.255.255 HQ-Egde1(config-std-nacl)#deny tcp host 195.1.1.6 eq 443 192.168.0.0 0.0.255.255 HQ-Egde1(config-std-nacl)#deny udp host 195.1.1.8 eq 123 any eq 123 HQ-Egde1(config-std-nacl)#deny tcp host 195.1.1.10 eq ftp 192.168.31.0 0.0.0.15 HQ-Egde1(config-std-nacl)#deny tcp host 195.1.1.9 eq ftp 192.168.71.0 0.0.0.15 HQ-Egde1(config-std-nacl)#permit ip any any HQ-Egde1(config)#ip nat pool NatPool 50.50.20.1 50.50.20.1 netmask 255.255.255.248 HQ-Egde1(config)#ip nat inside source list Nat pool NatPool overload HQ-Egde1(config)#int range gig0/0/0,gig0/0/1 HQ-Egde1(config-if-range)#ip nat inside HQ-Egde1(config-if-range)#int gig0/0/2 HQ-Egde1(config-if)#ip nat outside
5	NTP
	Configuration

	HQ-Egde1(config)#ntp authentication-key 123 md5 cisco HQ-Egde1(config)#ntp authenticate HQ-Egde1(config)#ntp trusted-key 123 HQ-Egde1(config)#ntp server 195.1.1.8
6	Sys-logs
	Configuration HQ-Egde1(config)#service timestamps log datetime msec HQ-Egde1(config)#logging 195.1.1.5
7	Disable CDP
	Configuration HQ-Egde1(config)#int g0/0/2 HQ-Egde1(config-if)#no cdp enable
8	AAA
	Configuration
9	VPN (IPsec)
	Configuration <u>Phase 1 – ISAKMP Policy</u> HQ-Egde1(config)# crypto isakmp policy 1 HQ-Egde1(config-isakmp)# authentication pre-share encryption aes #HQ-Egde1(config-isakmp) HQ-Egde1(config-isakmp)# group 5 HQ-Egde1(config-isakmp)# hash sha <u>ISAKMP Key</u> HQ-Egde1(config)# crypto isakmp key DEPI address 50.24.32.26 <u>Phase 2 – IPSec Transform Set</u> HQ-Egde1(config)# crypto ipsec transform-set B1 esp-aes esp-sha-hmac <u>Access List – Interesting Traffic</u>

```

HQ-Egde1(config)# access-list 100 permit ip 192.168.30.0 0.0.0.31
192.168.31.0 0.0.0.15
Crypto Map
HQ-Egde1(config)# crypto map VPN_B1 10 ipsec-isakmp
HQ-Egde1(config-crypto-map)# match address 100
HQ-Egde1(config-crypto-map)# set peer 50.24.32.26
HQ-Egde1(config-crypto-map)# set transform-set B1
Apply Crypto Map to Interface
HQ-Egde1(config)# interface GigabitEthernet0/0/2
HQ-Egde1(config-if)# crypto map VPN-B1

```

HQ-Edge2

No	Description
1	Interfaces IP Addresses
	Configuration <pre> HQ-Egde2(config)#interface GigabitEthernet0/0/0 HQ-Egde2(config-if)#no shutdown HQ-Egde2(config-if)#ip address 172.16.0.29 255.255.255.252 HQ-Egde2(config-if)#ip ospf authentication message-digest HQ-Egde2(config-if)#ip ospf message-digest-key 1 md5 DEPI HQ-Egde2(config)#interface GigabitEthernet0/0/1 HQ-Egde2(config-if)#no shutdown HQ-Egde2(config-if)#ip address 172.16.0.37 255.255.255.252 HQ-Egde2(config-if)#ip ospf authentication message-digest HQ-Egde2(config-if)#ip ospf message-digest-key 1 md5 DEPI HQ-Egde2(config)#interface Loopback1 HQ-Egde2(config-if)#ip address 1.1.1.9 255.255.255.255 </pre>
2	OSPF Routing
	Configuration <pre> HQ-Egde2(config)#router ospf 1 HQ-Egde2(config-router)#router-id 1.1.1.9 </pre>

	<pre>HQ-Egde2(config)#redistribute static subnets HQ-Egde2(config)#passive-interface GigabitEthernet0/0/2 HQ-Egde2(config-router)#area 0 authentication message-digest HQ-Egde2(config)#network 172.16.0.24 0.0.0.3 area 0 HQ-Egde2(config)#network 172.16.0.32 0.0.0.3 area 0</pre>
3	Default Route & Static Route
	<p>Configuration</p> <pre>HQ-Egde2(config)#ip route 0.0.0.0 0.0.0.0 50.50.20.10 HQ-Egde2(config)#ip route 195.1.1.0 255.255.255.240 172.16.0.38 HQ-Egde2(config)#ip route 195.1.1.0 255.255.255.240 172.16.0.30</pre>
4	PAT & Static NAT
	<p>Configuration</p> <pre>HQ-Egde2(config)#ip nat inside source static 195.1.1.6 50.50.20.11 HQ-Egde2(config)#ip access-list standard NAT HQ-Egde2(config-std-nacl)#permit ip any any HQ-Egde2(config)#ip nat pool NatPool 50.50.20.9 50.50.20.9 netmask 255.255.255.248 HQ-Egde2(config)#ip nat inside source list Nat pool NatPool overload HQ-Egde2(config)#int range gig0/0/0,gig0/0/1 HQ-Egde2(config-if-range)#ip nat inside HQ-Egde2(config-if-range)#int gig0/0/2 HQ-Egde2(config-if)#ip nat outside</pre>
5	NTP
	<p>Configuration</p> <pre>HQ-Egde2(config)#ntp authentication-key 123 md5 cisco HQ-Egde2(config)#ntp authenticate HQ-Egde2(config)#ntp trusted-key 123 HQ-Egde2(config)#ntp server 195.1.1.8</pre>

6	Sys-logs
	Configuration HQ-Egde2(config)#service timestamps log datetime msec HQ-Egde2(config)#logging 195.1.1.5
7	Disable CDP
	Configuration HQ-Egde2(config)#int g0/0/2 HQ-Egde2(config-if)#no cdp enable

HQ-NGFW1

No	Description
1	Interfaces IP Addresses
	Configuration HQ-NGFW1(config)#interface GigabitEthernet1/1 HQ-NGFW1(config-if)#no shutdown HQ-NGFW1(config-if)#ip address 172.16.0.2 255.255.255.252 HQ-NGFW1(config-if)#nameif INSIDE1 HQ-NGFW1(config-if)#security-level 100 HQ-NGFW1(config-if)#ospf authentication message-digest HQ-NGFW1(config-if)#ospf message-digest-key 1 md5 DEPI HQ-NGFW1(config)#interface GigabitEthernet1/2 HQ-NGFW1(config-if)#no shutdown HQ-NGFW1(config-if)#ip address 172.16.0.10 255.255.255.255 HQ-NGFW1(config-if)#nameif INSIDE2 HQ-NGFW1(config-if)#security-level 100 HQ-NGFW1(config-if)#ospf authentication message-digest HQ-NGFW1(config-if)#ospf message-digest-key 1 md5 DEPI HQ-NGFW1(config-if)#interface GigabitEthernet1/3

	<pre> HQ-NGFW1(config-if)#no shutdown HQ-NGFW1(config-if)#ip address 172.16.0.17 255.255.255.252 HQ-NGFW1(config-if)#nameif DMZ HQ-NGFW1(config-if)#security-level 50 HQ-NGFW1(config-if)#ospf authentication message-digest HQ-NGFW1(config-if)#ospf message-digest-key 1 md5 DEPI HQ-NGFW1(config-if)#interface GigabitEthernet1/4 HQ-NGFW1(config-if)#no shutdown HQ-NGFW1(config-if)#ip address 172.16.0.26 255.255.255.252 HQ-NGFW1(config-if)#nameif OUTSIDE1 HQ-NGFW1(config-if)#security-level 0 HQ-NGFW1(config-if)#ospf authentication message-digest HQ-NGFW1(config-if)#ospf message-digest-key 1 md5 DEPI HQ-NGFW1(config-if)#interface GigabitEthernet1/5 HQ-NGFW1(config-if)#no shutdown HQ-NGFW1(config-if)#ip address 172.16.0.38 255.255.255.252 HQ-NGFW1(config-if)#nameif OUTSIDE2 HQ-NGFW1(config-if)#security-level 0 HQ-NGFW1(config-if)#ospf authentication message-digest HQ-NGFW1(config-if)#ospf message-digest-key 1 md5 DEPI </pre>
2	OSPF Routing
	<p>Configuration</p> <pre> HQ-NGFW1(config)#router ospf 1 HQ-NGFW1(config-router)#router-id 1.1.1.6 HQ-NGFW1(config-router)#area 0 authentication message-digest HQ-NGFW1(config-router)#network 172.16.0.0 255.255.255.252 area 0 HQ-NGFW1(config-router)#network 172.16.0.8 255.255.255.252 area 0 HQ-NGFW1(config-router)#network 172.16.0.16 255.255.255.252 area 0 HQ-NGFW1(config-router)#network 172.16.0.24 255.255.255.252 area 0 HQ-NGFW1(config-router)#network 172.16.0.36 255.255.255.252 area 0 </pre>
3	Default Route
	<p>Configuration</p> <pre> HQ-NGFW1(config)#route OUTSIDE1 0.0.0.0 0.0.0.0 172.16.0.25 1 HQ-NGFW1(config)#route OUTSIDE2 0.0.0.0 0.0.0.0 172.16.0.37 10 </pre>
4	Access Lists (ACLs) Configuration

	Configuration HQ-NGFW1(config)#access-list DMZ-INSIDE extended permit udp host 195.1.1.2 any eq bootps HQ-NGFW1(config)#access-list DMZ-INSIDE extended permit udp host 195.1.1.2 any eq bootpc HQ-NGFW1(config)#access-list DMZ-INSIDE extended permit udp host 195.1.1.3 eq domain any HQ-NGFW1(config)#access-list DMZ-INSIDE extended permit udp host 195.1.1.8 eq 123 any
5	NTP
	Configuration HQ-NGFW1(config)#ntp authentication-key 123 md5 cisco HQ-NGFW1(config)#ntp authenticate HQ-NGFW1(config)#ntp trusted-key 123 HQ-NGFW1(config)#ntp server 195.1.1.8

HQ-NGFW2

No	Description
1	Interfaces IP Addresses
	Configuration HQ-NGFW2(config)#interface GigabitEthernet1/1 HQ-NGFW2(config-if)#no shutdown HQ-NGFW2(config-if)#ip address 172.16.0.6 255.255.255.252 HQ-NGFW2(config-if)#nameif INSIDE1 HQ-NGFW2(config-if)#security-level 100 HQ-NGFW2(config)#interface GigabitEthernet1/2 HQ-NGFW2(config-if)#no shutdown HQ-NGFW2(config-if)#ip address 172.16.0.14 255.255.255.252 HQ-NGFW2(config-if)#nameif INSIDE2 HQ-NGFW2(config-if)#security-level 100 HQ-NGFW2(config-if)#interface GigabitEthernet1/3 HQ-NGFW2(config-if)#no shutdown HQ-NGFW2(config-if)#ip address 172.16.0.21 255.255.255.252 HQ-NGFW2(config-if)#nameif DMZ

	<pre>HQ-NGFW2(config-if)#security-level 50 HQ-NGFW2(config-if)#interface GigabitEthernet1/4 HQ-NGFW2(config-if)#no shutdown HQ-NGFW2(config-if)#ip address 172.16.0.30 255.255.255.252 HQ-NGFW2(config-if)#nameif OUTSIDE1 HQ-NGFW2(config-if)#security-level 0 HQ-NGFW2(config-if)#interface GigabitEthernet1/5 HQ-NGFW2(config-if)#no shutdown HQ-NGFW2(config-if)#ip address 172.16.0.33 255.255.255.252 HQ-NGFW2(config-if)#nameif OUTSIDE2 HQ-NGFW2(config-if)#security-level 0</pre>
2	OSPF Routing
	<p>Configuration</p> <pre>HQ-NGFW2(config)#router ospf 1 HQ-NGFW2(config-router)#router-id 1.1.1.7 HQ-NGFW2(config-router)#network 172.16.0.4 255.255.255.252 area 0 HQ-NGFW2(config-router)#network 172.16.0.12 255.255.255.252 area 0 HQ-NGFW2(config-router)#network 172.16.0.20 255.255.255.252 area 0 HQ-NGFW2(config-router)#network 172.16.0.28 255.255.255.252 area 0 HQ-NGFW2(config-router)#network 172.16.0.32 255.255.255.252 area 0</pre>
3	Default Route
	<p>Configuration</p> <pre>HQ-NGFW2(config)#route OUTSIDE1 0.0.0.0 0.0.0.0 172.16.0.29 1 HQ-NGFW2(config)#route OUTSIDE2 0.0.0.0 0.0.0.0 172.16.0.34 10</pre>
4	Access Lists (ACLs) Configuration
	<p>Configuration</p> <pre>HQ-NGFW1(config)#access-list DMZ-INSIDE extended permit udp host 195.1.1.2 any eq bootps HQ-NGFW1(config)#access-list DMZ-INSIDE extended permit udp host 195.1.1.2 any eq bootpc HQ-NGFW1(config)#access-list DMZ-INSIDE extended permit udp host 195.1.1.3 eq domain any HQ-NGFW1(config)#access-list DMZ-INSIDE extended permit udp host 195.1.1.8 eq 123 any</pre>

5	NTP
	Configuration HQ-NGFW1(config)#ntp authentication-key 123 md5 cisco HQ-NGFW1(config)#ntp authenticate HQ-NGFW1(config)#ntp trusted-key 123 HQ-NGFW1(config)#ntp server 195.1.1.8

HQ-DMZ-MLS

No	Description
1	Create Vlans Configuration HQ-DMZ-MLS(config)#vlan 40 HQ-DMZ-MLS(config-vlan)#name Servers HQ-DMZ-MLS(config)#vlan 999 HQ-DMZ-MLS(config-vlan)#name PARKING_VLAN
2	OSPF Routing Configuration HQ-Egde1(config)#router ospf 1 HQ-Egde1(config-router)#router-id 1.1.1.8 HQ-Egde1(config)#redistribute static subnets HQ-Egde1(config)#passive-interface GigabitEthernet0/0/2 HQ-Egde1(config-router)#area 0 authentication message-digest HQ-Egde1(config)#network 172.16.0.24 0.0.0.3 area 0 HQ-Egde1(config)#network 172.16.0.32 0.0.0.3 area 0
3	Interfaces IP Addresses

	<p>Configuration</p> <p>HQ-DMZ-MLS(config)#ip routing</p> <p>HQ-DMZ-MLS(config)#interface loopback 0</p> <p>HQ-DMZ-MLS(config-if)#ip address 1.1.1.6 255.255.255.255</p> <p>HQ-DMZ-MLS(config)#interface GigabitEthernet1/0/1</p> <p>HQ-DMZ-MLS(config-if)#no switchport</p> <p>HQ-DMZ-MLS(config-if)#ip address 172.16.0.18 255.255.255.252</p> <p>HQ-DMZ-MLS(config-if)#ip ospf authentication message-digest</p> <p>HQ-DMZ-MLS(config-if)#ip ospf message-digest-key 1 md5 DEPI</p> <p>HQ-DMZ-MLS(config)#interface GigabitEthernet1/0/2</p> <p>HQ-DMZ-MLS(config-if)#no switchport</p> <p>HQ-DMZ-MLS(config-if)#ip address 172.16.0.22 255.255.255.252</p> <p>HQ-DMZ-MLS(config-if)#ip ospf authentication message-digest</p> <p>HQ-DMZ-MLS(config-if)#ip ospf message-digest-key 1 md5 DEPI</p> <p>HQ-DMZ-MLS(config)#int vlan 40</p> <p>HQ-DMZ-MLS(config-if)#ip address 195.1.1.1 255.255.255.240</p> <p>HQ-DMZ-MLS(config-if)# ip ospf authentication message-digest</p> <p>HQ-DMZ-MLS(config-if)# ip ospf message-digest-key 1 md5 DEPI</p>
4	STP
	<p>Configuration</p> <p>HQ-DMZ-MLS(config)#no spanning-tree vlan 1,40,999</p> <p>HQ-DMZ-MLS(config)#spanning-tree mode rapid-pvst</p> <p>HQ-DMZ-MLS(config)#spanning-tree portfast default</p> <p>HQ-DMZ-MLS(config)#spanning-tree portfast bpduguard default</p>
5	OSPF Routing
	<p>Configuration</p> <p>HQ-DMZ-MLS(config)#router ospf 1</p> <p>HQ-DMZ-MLS(config-router)#router-id 1.1.1.5</p> <p>HQ-DMZ-MLS(config-router)#area 0 authentication message-digest</p> <p>HQ-DMZ-MLS(config-router)#network 172.16.0.16 0.0.0.3 area 0</p> <p>HQ-DMZ-MLS(config-router)#network 172.16.0.20 0.0.0.3 area 0</p> <p>HQ-DMZ-MLS(config-router)#network 195.1.1.1 0.0.0.7 area 0</p>

6	Default Route
	Configuration HQ-DMZ-MLS(config)#ip route 0.0.0.0 0.0.0.0 172.16.0.17
7	Access Interfaces & Disabled Interfaces
	Configuration HQ-DMZ-MLS(config)#int range gigabitEthernet 1/0/3-9 HQ-DMZ-MLS(config-if-range)#switchport mode access HQ-DMZ-MLS(config-if-range)#switchport access vlan 50 HQ-DMZ-MLS(config)#int range gigabitEthernet 1/0/10-24,g1/1/1-4 HQ-DMZ-MLS(config-if-range)#switchport mode access HQ-DMZ-MLS(config-if-range)#switchport access vlan 999 HQ-DMZ-MLS(config-if-range)#shutdown
8	NTP
	Configuration HQ-DMZ-MLS(config)#ntp authentication-key 123 md5 cisco HQ-DMZ-MLS(config)#ntp authenticate HQ-DMZ-MLS(config)#ntp trusted-key 123 HQ-DMZ-MLS(config)#ntp server 195.1.1.8
9	Sys-logs
	Configuration <u>HQ-DMZ-MLS(config)#service timestamps log datetime msec</u> <u>HQ-DMZ-MLS(config)#logging 195.1.1.5</u>
10	AAA
	Configuration

```

HQ-DMZ-MLS(config)#username DEPI privilege 15 algorithm-type scrypt secret 123
HQ-DMZ-MLS(config)#enable algorithm-type scrypt secret depi

HQ-DMZ-MLS(config)#aaa new-model
HQ-DMZ-MLS(config)#tacacs-server host 195.1.1.7 key DEPI
HQ-DMZ-MLS(config)#aaa authentication login default group tacacs+ local
HQ-DMZ-MLS(config)#aaa authorization exec default group tacacs+ local
HQ-DMZ-MLS(config)#aaa accounting exec default start-stop group tacacs+

HQ-DMZ-MLS(config)#ip domain-name HQ-ACC-SW8.depi
HQ-DMZ-MLS(config)#crypto key generate rsa general-keys modulus 1024
HQ-DMZ-MLS(config)#ip ssh version 2

HQ-DMZ-MLS(config)#line vty 0 2
HQ-DMZ-MLS(config-line)#login authentication default
HQ-DMZ-MLS(config-line)#transport input ssh

```

HQ-DMZ-MLS

No	Description
1	Interfaces IP Addresses
	Configuration HQ-CORE-MLS1(config)#ip routing HQ-CORE-MLS1(config)#int loopback 0 HQ-CORE-MLS1(config-if)#ip address 1.1.1.1 255.255.255.255 HQ-CORE-MLS1(config)#interface GigabitEthernet1/0/2 HQ-CORE-MLS1(config-if)#no switchport HQ-CORE-MLS1(config-if)#ip address 10.0.0.10 255.255.255.252 HQ-CORE-MLS1(config-if)#ip ospf authentication message-digest HQ-CORE-MLS1(config-if)#ip ospf message-digest-key 1 md5 DEPI HQ-CORE-MLS1(config)#interface GigabitEthernet1/0/3 HQ-CORE-MLS1(config-if)#no switchport HQ-CORE-MLS1(config-if)#ip address 10.0.0.18 255.255.255.252

	<pre> HQ-CORE-MLS1(config-if)#ip ospf authentication message-digest HQ-CORE-MLS1(config-if)#ip ospf message-digest-key 1 md5 DEPI HQ-CORE-MLS1(config)#interface GigabitEthernet1/0/4 HQ-CORE-MLS1(config-if)#no switchport HQ-CORE-MLS1(config-if)#ip address 172.16.0.1 255.255.255.252 HQ-CORE-MLS1(config-if)#ip ospf authentication message-digest HQ-CORE-MLS1(config-if)#ip ospf message-digest-key 1 md5 DEPI HQ-CORE-MLS1(config)#interface GigabitEthernet1/0/5 HQ-CORE-MLS1(config-if)#no switchport HQ-CORE-MLS1(config-if)#ip address 172.16.0.13 255.255.255.252 HQ-CORE-MLS1(config-if)#ip ospf authentication message-digest HQ-CORE-MLS1(config-if)#ip ospf message-digest-key 1 md5 DEPI </pre>
2	OSPF Routing
	<p>Configuration</p> <pre> HQ-CORE-MLS1(config)#router ospf 1 HQ-CORE-MLS1(config-router)#router-id 1.1.1.1 HQ-CORE-MLS1(config-router)#area 0 authentication message-digest HQ-CORE-MLS1(config-router)#network 10.0.0.8 0.0.0.3 area 0 HQ-CORE-MLS1(config-router)#network 10.0.0.16 0.0.0.3 area 0 HQ-CORE-MLS1(config-router)#network 172.16.0.0 0.0.0.3 area 0 HQ-CORE-MLS1(config-router)#network 172.16.0.12 0.0.0.3 area 0 </pre>
3	Default Route
	<p>Configuration</p> <pre> HQ-CORE-MLS1(config)#ip route 0.0.0.0 0.0.0.0 172.16.0.2 1 HQ-CORE-MLS1(config)#ip route 0.0.0.0 0.0.0.0 172.16.0.14 10 </pre>
4	Disabled Interfaces
	<p>Configuration</p> <pre> HQ-CORE-MLS1(config)#int range g1/0/6-24,g1/1/1-4 HQ-CORE-MLS1(config-if-range)#shutdown HQ-CORE-MLS1(config-if-range)#switchport access vlan 999 </pre>

5	NTP
	<p>Configuration</p> <p>HQ-CORE-MLS1(config)#ntp authentication-key 123 md5 cisco HQ-CORE-MLS1(config)#ntp authenticate HQ-CORE-MLS1(config)#ntp trusted-key 123 HQ-CORE-MLS1(config)#ntp server 195.1.1.8</p>
6	Sys-logs
	<p>Configuration</p> <p>HQ-CORE-MLS1(config)#service timestamps log datetime msec HQ-CORE-MLS1(config)#logging 195.1.1.5</p>
7	AAA
	<p>Configuration</p> <p>HQ-CORE-MLS1(config)#username DEPI privilege 15 algorithm-type scrypt secret 123 HQ-CORE-MLS1(config)#enable algorithm-type scrypt secret depi</p> <p>HQ-CORE-MLS1(config)#aaa new-model HQ-CORE-MLS1(config)#tacacs-server host 195.1.1.7 key DEPI HQ-CORE-MLS1(config)#aaa authentication login default group tacacs+ local HQ-CORE-MLS1(config)#aaa authorization exec default group tacacs+ local HQ-CORE-MLS1(config)#aaa accounting exec default start-stop group tacacs+</p> <p>HQ-CORE-MLS1(config)#ip domain-name HQ-CORE-MLS1.depi HQ-CORE-MLS1(config)#crypto key generate rsa general-keys modulus 1024 HQ-CORE-MLS1(config)#ip ssh version 2</p> <p>HQ-CORE-MLS1(config)#line vty 0 2 HQ-CORE-MLS1(config-line)#login authentication default HQ-CORE-MLS1(config-line)#transport input ssh</p>

HQ-CORE-MLS2

No	Description
1	Interfaces IP Addresses
	<p>Configuration</p> <pre> HQ-CORE-MLS2(config)#ip routing HQ-CORE-MLS2(config)#interface GigabitEthernet1/0/2 HQ-CORE-MLS2(config-if)#no switchport HQ-CORE-MLS2(config-if)#ip address 10.0.0.14 255.255.255.252 HQ-CORE-MLS2(config-if)#ip ospf authentication message-digest HQ-CORE-MLS2(config-if)#ip ospf message-digest-key 1 md5 DEPI HQ-CORE-MLS2(config)#interface GigabitEthernet1/0/3 HQ-CORE-MLS2(config-if)#no switchport HQ-CORE-MLS2(config-if)#ip address 10.0.0.22 255.255.255.252 HQ-CORE-MLS2(config-if)#ip ospf authentication message-digest HQ-CORE-MLS2(config-if)#ip ospf message-digest-key 1 md5 DEPI HQ-CORE-MLS2(config)#interface GigabitEthernet1/0/4 HQ-CORE-MLS2(config-if)#no switchport HQ-CORE-MLS2(config-if)#ip address 172.16.0.5 255.255.0.0 HQ-CORE-MLS2(config-if)#ip ospf authentication message-digest HQ-CORE-MLS2(config-if)#ip ospf message-digest-key 1 md5 DEPI </pre>

	<pre> HQ-CORE-MLS2(config)#interface GigabitEthernet1/0/5 HQ-CORE-MLS2(config-if)#no switchport HQ-CORE-MLS2(config-if)#ip address 172.16.0.9 255.255.0.0 HQ-CORE-MLS2(config-if)#ip ospf authentication message-digest HQ-CORE-MLS2(config-if)#ip ospf message-digest-key 1 md5 DEPI </pre>
2	OSPF Routing
	<p>Configuration</p> <pre> HQ-CORE-MLS2(config)#router ospf 1 HQ-CORE-MLS2(config-router)#router-id 1.1.1.2 HQ-CORE-MLS1(config-router)#area 0 authentication message-digest HQ-CORE-MLS2(config-router)#network 10.0.0.12 0.0.0.3 area 0 HQ-CORE-MLS2(config-router)#network 10.0.0.20 0.0.0.3 area 0 HQ-CORE-MLS2(config-router)#network 172.16.0.4 0.0.0.3 area 0 HQ-CORE-MLS2(config-router)#network 172.16.0.8 0.0.0.3 area 0 </pre>
3	Default Route
	<p>Configuration</p> <pre> HQ-CORE-MLS2(config)#ip route 0.0.0.0 0.0.0.0 172.16.0.6 1 HQ-CORE-MLS2(config)#ip route 0.0.0.0 0.0.0.0 172.16.0.10 10 </pre>
4	Disabled Interfaces
	<p>Configuration</p> <pre> HQ-CORE-MLS2(config)#int range g1/0/6-24,g1/1/1-4 HQ-CORE-MLS2(config-if-range)#shutdown HQ-CORE-MLS2(config-if-range)#switchport access vlan 999 </pre>
5	NTP
	<p>Configuration</p> <pre> H HQ-CORE-MLS2(config)#ntp authentication-key 123 md5 cisco </pre>

	HQ-CORE-MLS2(config)#ntp authenticate HQ-CORE-MLS2(config)#ntp trusted-key 123 HQ-CORE-MLS2(config)#ntp server 195.1.1.8
6	Sys-logs
	Configuration HQ-CORE-MLS2(config)#service timestamps log datetime msec HQ-CORE-MLS2(config)#logging 195.1.1.5
7	AAA
	Configuration HQ-CORE-MLS2(config)#username DEPI privilege 15 algorithm-type scrypt secret 123 HQ-CORE-MLS2(config)#enable algorithm-type scrypt secret depi HQ-CORE-MLS2(config)#aaa new-model HQ-CORE-MLS2(config)#tacacs-server host 195.1.1.7 key DEPI HQ-CORE-MLS2(config)#aaa authentication login default group tacacs+ local HQ-CORE-MLS2(config)#aaa authorization exec default group tacacs+ local HQ-CORE-MLS2(config)#aaa accounting exec default start-stop group tacacs+ HQ-CORE-MLS2(config)#ip domain-name HQ-CORE-MLS2.depi HQ-CORE-MLS2(config)#crypto key generate rsa general-keys modulus 1024 HQ-CORE-MLS2(config)#ip ssh version 2 HQ-CORE-MLS2(config)#line vty 0 2 HQ-CORE-MLS2(config-line)#login authentication default HQ-CORE-MLS2(config-line)#transport input ssh

HQ-DIS-MLS1

No	Description

1	Create Vlans
	<p>Configuration</p> <pre> HQ-CORE-MLS2(config)#ip routing HQ-DIS-MLS1(config)#vlan 10 HQ-DIS-MLS1(config-vlan)#name HR HQ-DIS-MLS1(config)#vlan 15 HQ-DIS-MLS1(config-vlan)#name CCTV HQ-DIS-MLS1(config)#vlan 20 HQ-DIS-MLS1(config-vlan)#name Server HQ-DIS-MLS1(config)#vlan 30 HQ-DIS-MLS1(config-vlan)#name Management HQ-DIS-MLS1(config)#vlan 40 HQ-DIS-MLS1(config-vlan)#name Voice HQ-DIS-MLS1(config)#vlan 50 HQ-DIS-MLS1(config-vlan)#name Guest HQ-DIS-MLS1(config)#vlan 60 HQ-DIS-MLS1(config-vlan)#name Retail_Banking HQ-DIS-MLS1(config)#vlan 70 HQ-DIS-MLS1(config-vlan)#name Credits_and_Loans HQ-DIS-MLS1(config)#vlan 80 HQ-DIS-MLS1(config-vlan)#name Customer_Service HQ-DIS-MLS1(config)#vlan 90 HQ-DIS-MLS1(config-vlan)#name IT HQ-DIS-MLS1(config)#vlan 100 HQ-DIS-MLS1(config-vlan)#name Digital_Banking HQ-DIS-MLS1(config)#vlan 99 HQ-DIS-MLS1(config-vlan)#name Native HQ-DIS-MLS1(config)#vlan 200 HQ-DIS-MLS1(config-vlan)#name Manage </pre>
2	Port-Aggregation (Etherchannel) & Trunking
	<p>Configuration</p> <pre> HQ-DIS-MLS1(config)#int range gig1/0/1,gig1/0/2 HQ-DIS-MLS1(config-if-range)#channel-group 1 mode desirable HQ-DIS-MLS1(config-if-range)#switchport mode trunk HQ-DIS-MLS1(config-if-range)#switchport trunk native vlan 99 HQ-DIS-MLS1(config)#int range gig1/0/3,gig1/0/4 HQ-DIS-MLS1(config-if-range)#channel-group 2 mode desirable HQ-DIS-MLS1(config-if-range)#switchport mode trunk HQ-DIS-MLS1(config-if-range)#switchport trunk native vlan 99 </pre>

	<pre> HQ-DIS-MLS1(config)#int range gig1/0/5,gig1/0/6 HQ-DIS-MLS1(config-if-range)#channel-group 3 mode desirable HQ-DIS-MLS1(config-if-range)#switchport mode trunk HQ-DIS-MLS1(config-if--range)#switchport trunk native vlan 99 HQ-DIS-MLS1(config)#int gig1/0/8 HQ-DIS-MLS1(config-if)#switchport mode trunk HQ-DIS-MLS1(config-if)#switchport trunk native vlan 99 </pre>
3	VTP
	<p>Configuration</p> <pre> HQ-DIS-MLS1(config)#vtp version 2 HQ-DIS-MLS1(config)#vtp domain DEPI HQ-DIS-MLS1(config)#vtp password 123 HQ-DIS-MLS2(config)#vtp mode server </pre>
4	STP
	<p>Configuration</p> <pre> HQ-DIS-MLS1(config)#spanning-tree mode rapid-pvst HQ-DIS-MLS1(config)#spanning-tree vlan 1,10,15,20,30,40,50,60,70,80,90,99,100 ,999 root primar </pre>
5	Vlans IP Addresses & HSRB
	<p>Configuration</p> <pre> HQ-DIS-MLS1(config)#int vlan 10 HQ-DIS-MLS1(config-if)#ip add 192.168.10.2 255.255.255.224 HQ-DIS-MLS1(config-if)#ip helper-address 195.1.1.2 HQ-DIS-MLS1(config-if)#standby version 2 HQ-DIS-MLS1(config-if)#standby 1 ip 192.168.10.1 HQ-DIS-MLS1(config-if)#standby 1 priority 150 HQ-DIS-MLS1(config-if)#standby 1 preempt HQ-DIS-MLS1(config)#int vlan 15 HQ-DIS-MLS1(config-if)#ip add 192.168.150.2 255.255.255.224 HQ-DIS-MLS1(config-if)#standby version 2 HQ-DIS-MLS1(config-if)#standby 15 ip </pre>

```

HQ-DIS-MLS1(config)#int vlan 20
HQ-DIS-MLS1(config-if)#ip add 192.168.20.2 255.255.255.240
HQ-DIS-MLS1(config-if)#ip helper-address 195.1.1.2
HQ-DIS-MLS1(config-if)#standby version 2
HQ-DIS-MLS1(config-if)#standby 2 ip 192.168.20.1
HQ-DIS-MLS1(config-if)#standby 2 priority 150
HQ-DIS-MLS1(config-if)#standby 2 preempt

HQ-DIS-MLS1(config)#int vlan 30
HQ-DIS-MLS1(config-if)#ip add 192.168.30.2 255.255.255.224
HQ-DIS-MLS1(config-if)#ip helper-address 195.1.1.2
HQ-DIS-MLS1(config-if)#standby version 2
HQ-DIS-MLS1(config-if)#standby 3 ip 192.168.30.1
HQ-DIS-MLS1(config-if)#standby 3 priority 150
HQ-DIS-MLS1(config-if)#standby 3 preempt

HQ-DIS-MLS1(config)#int vlan 40
HQ-DIS-MLS1(config-if)#ip add 192.168.40.2 255.255.255.224
HQ-DIS-MLS1(config-if)#ip helper-address 195.1.1.2
HQ-DIS-MLS1(config-if)#standby version 2
HQ-DIS-MLS1(config-if)#standby 4 ip 192.168.30.1
HQ-DIS-MLS1(config-if)#standby 4 priority 150
HQ-DIS-MLS1(config-if)#standby 4 preempt

HQ-DIS-MLS1(config)#int vlan 50
HQ-DIS-MLS1(config-if)#ip add 192.168.50.2 255.255.255.0
HQ-DIS-MLS1(config-if)#ip helper-address 195.1.1.2
HQ-DIS-MLS1(config-if)#standby version 2
HQ-DIS-MLS1(config-if)#standby 5 ip 192.168.50.1
HQ-DIS-MLS1(config-if)#standby 5 priority 150
HQ-DIS-MLS1(config-if)#standby 5 preempt

HQ-DIS-MLS1(config)#int vlan 60
HQ-DIS-MLS1(config-if)#ip add 192.168.60.3 255.255.255.192
HQ-DIS-MLS1(config-if)#standby version 2
HQ-DIS-MLS1(config-if)#standby 6 ip

HQ-DIS-MLS1(config)#int vlan 70
HQ-DIS-MLS1(config-if)#ip add 192.168.70.3 255.255.255.224
HQ-DIS-MLS1(config-if)#standby version 2
HQ-DIS-MLS1(config-if)#standby 7 ip

HQ-DIS-MLS1(config)#int vlan 80
HQ-DIS-MLS1(config-if)#ip add 192.168.80.3 255.255.255.224
HQ-DIS-MLS1(config-if)#standby version 2
HQ-DIS-MLS1(config-if)#standby 8 ip

HQ-DIS-MLS1(config)#int vlan 90

```


	<pre> HQ-DIS-MLS1(config-if)#ip add 192.168.90.3 255.255.255.224 HQ-DIS-MLS1(config-if)#standby version 2 HQ-DIS-MLS1(config-if)#standby 9 ip HQ-DIS-MLS1(config)#int vlan 100 HQ-DIS-MLS1(config-if)#ip add 192.168.100.3 255.255.255.224 HQ-DIS-MLS1(config-if)#standby version 2 HQ-DIS-MLS1(config-if)#standby 10 ip HQ-DIS-MLS1(config)#int vlan 200 HQ-DIS-MLS1(config-if)#ip add 192.168.200.2 255.255.255.224 HQ-DIS-MLS1(config-if)#standby version 2 HQ-DIS-MLS1(config-if)#standby 200 ip 192.168.200.1 HQ-DIS-MLS1(config-if)#standby 200 priority 150 HQ-DIS-MLS1(config-if)#standby 200 preempt </pre>
6	Interfaces IP Addresses
	<p>Configuration</p> <pre> HQ-DIS-MLS1(config)#ip routing HQ-DIS-MLS1(config)#int loopback 0 HQ-DIS-MLS1(config-if)#ip address 1.1.1.4 HQ-DIS-MLS1(config)#interface GigabitEthernet1/0/7 HQ-DIS-MLS1(config-if)#no switchport HQ-DIS-MLS1(config-if)#ip address 10.0.0.9 255.255.255.252 HQ-DIS-MLS1(config-if)#ip ospf authentication message-digest HQ-DIS-MLS1(config-if)#ip ospf message-digest-key 1 md5 DEPI HQ-DIS-MLS1(config)#interface GigabitEthernet1/0/9 HQ-DIS-MLS1(config-if)#no switchport HQ-DIS-MLS1(config-if)#ip address 10.0.0.21 255.255.255.252 HQ-DIS-MLS1(config-if)#ip ospf authentication message-digest HQ-DIS-MLS1(config-if)#ip ospf message-digest-key 1 md5 DEPI </pre>
7	OSPF Routing
	<p>Configuration</p> <pre> HQ-DIS-MLS1(config)#router ospf 1 HQ-DIS-MLS1(config-router)#router-id 1.1.1.3 HQ-DIS-MLS1(config-router)#area 0 authentication message-digest </pre>

	<pre> HQ-DIS-MLS1(config-router)#passive-interface default HQ-DIS-MLS1(config-router)#no passive-interface gigabitEthernet 1/0/7 HQ-DIS-MLS1(config-router)#no passive-interface gigabitEthernet 1/0/9 HQ-DIS-MLS1(config-router)#network 10.0.0.8 0.0.0.3 area 0 HQ-DIS-MLS1(config-router)#network 10.0.0.20 0.0.0.3 area 0 HQ-DIS-MLS1(config-router)#network 192.168.150.0 0.0.0.31 area 0 HQ-DIS-MLS1(config-router)#network 192.168.10.0 0.0.0.31 area 0 HQ-DIS-MLS1(config-router)#network 192.168.20.0 0.0.0.15 area 0 HQ-DIS-MLS1(config-router)#network 192.168.30.0 0.0.0.31 area 0 HQ-DIS-MLS1(config-router)#network 192.168.40.0 0.0.0.31 area 0 HQ-DIS-MLS1(config-router)#network 192.168.50.0 0.0.0.255 area 0 HQ-DIS-MLS1(config-router)#network 192.168.60.0 0.0.0.63 area 0 HQ-DIS-MLS1(config-router)#network 192.168.70.0 0.0.0.31 area 0 HQ-DIS-MLS1(config-router)#network 192.168.80.0 0.0.0.31 area 0 HQ-DIS-MLS1(config-router)#network 192.168.90.0 0.0.0.31 area 0 HQ-DIS-MLS1(config-router)#network 192.168.100.0 0.0.0.31 area 0 HQ-DIS-MLS1(config-router)#network 192.168.200.0 0.0.0.31 area 0 </pre>
8	Default Route
	<p>Configuration</p> <pre> HQ-DIS-MLS1(config)#ip route 0.0.0.0 0.0.0.0 10.0.0.10 HQ-DIS-MLS1(config)#ip route 0.0.0.0 0.0.0.0 10.0.0.22 10 </pre>
9	Disabled Interfaces
	<p>Configuration</p> <pre> HQ-DIS-MLS1(config)#int range g1/0/10-24,g1/1/1-4 HQ-DIS-MLS1(config-if-range)#shutdown HQ-DIS-MLS1(config-if-range)#switchport access vlan 999 </pre>
10	NTP
	<p>Configuration</p> <pre> HQ-DIS-MLS1(config)#ntp authentication-key 123 md5 cisco HQ-DIS-MLS1(config)#ntp authenticate HQ-DIS-MLS1(config)#ntp trusted-key 123 HQ-DIS-MLS1(config)#ntp server 195.1.1.8 </pre>

11	Sys-logs
	Configuration HQ-DIS-MLS1(config)#service timestamps log datetime msec HQ-DIS-MLS1(config)#logging 195.1.1.5
12	AAA
	Configuration HQ-DIS-MLS1(config)#username DEPI privilege 15 algorithm-type scrypt secret 123 HQ-DIS-MLS1(config)#enable algorithm-type scrypt secret depi HQ-DIS-MLS1(config)#aaa new-model HQ-DIS-MLS1(config)#tacacs-server host 195.1.1.7 key DEPI HQ-DIS-MLS1(config)#aaa authentication login default group tacacs+ local HQ-DIS-MLS1(config)#aaa authorization exec default group tacacs+ local HQ-DIS-MLS1(config)#aaa accounting exec default start-stop group tacacs+ HQ-DIS-MLS1(config)#ip domain-name HQ-DIS-MLS1.depi HQ-DIS-MLS1(config)#crypto key generate rsa general-keys modulus 1024 HQ-DIS-MLS1(config)#ip ssh version 2 HQ-DIS-MLS1(config)#line vty 0 2 HQ-DIS-MLS1(config-line)#login authentication default HQ-DIS-MLS1(config-line)#transport input ssh

HQ-DIS-MLS2

No	Description
1	Port-Aggregation (Etherchannel) & Trunking
	Configuration

	<p>HQ-DIS-MLS2(config)#int range gig1/0/1,gig1/0/2 HQ-DIS-MLS2(config-if-range)#channel-group 1 mode desirable HQ-DIS-MLS2(config-if-range)#switchport mode trunk HQ-DIS-MLS2(config-if-range)#switchport trunk native vlan 99</p> <p>HQ-DIS-MLS2(config)#int range gig1/0/3,gig1/0/4 HQ-DIS-MLS2(config-if-range)#channel-group 2 mode desirable HQ-DIS-MLS2(config-if-range)#switchport mode trunk HQ-DIS-MLS2(config-if-range)#switchport trunk native vlan 99</p> <p>HQ-DIS-MLS2(config)#int range gig1/0/5,gig1/0/6 HQ-DIS-MLS2(config-if-range)#channel-group 3 mode desirable HQ-DIS-MLS2(config-if-range)#switchport mode trunk HQ-DIS-MLS2(config-if-range)#switchport trunk native vlan 99</p> <p>HQ-DIS-MLS2(config)#interface GigabitEthernet1/0/8 HQ-DIS-MLS2(config-if)#switchport mode trunk HQ-DIS-MLS2(config-if)#switchport trunk native vlan 99</p>
2	VTP
	<p>Configuration</p> <p>HQ-DIS-MLS2(config)#vtp version 2 HQ-DIS-MLS2(config)#vtp domain DEPI HQ-DIS-MLS2(config)#vtp password 123 HQ-DIS-MLS2(config)#vtp mode client</p>
3	STP
	<p>Configuration</p> <p>HQ-DIS-MLS2(config)#spanning-tree mode rapid-pvst HQ-DIS-MLS2(config)#spanning-tree vlan 1,10,15,20,30,40,50,60,70,80,90,99,100,999 root secondary</p>
4	Vlans IP Addresses & HSRB
	<p>Configuration</p> <p>HQ-DIS-MLS2(config)#int vlan 10 HQ-DIS-MLS2(config-if)#ip add 192.168.10.3 255.255.255.224 HQ-DIS-MLS2(config-if)#standby version 2</p>

HQ-DIS-MLS2(config-if)#standby 1 ip

HQ-DIS-MLS2(config)#int vlan 15
HQ-DIS-MLS2(config-if)#ip add 192.168.150.3 255.255.255.224
HQ-DIS-MLS2(config-if)#ip helper-address 195.1.1.2
HQ-DIS-MLS2(config-if)#standby version 2
HQ-DIS-MLS2(config-if)#standby 15 ip 192.168.60.1
HQ-DIS-MLS2(config-if)#standby 15 priority 150
HQ-DIS-MLS2(config-if)#standby 15 preempt

HQ-DIS-MLS2(config)#int vlan 20
HQ-DIS-MLS2(config-if)#ip add 192.168.20.3 255.255.255.240
HQ-DIS-MLS2(config-if)#standby version 2
HQ-DIS-MLS2(config-if)#standby 2 ip

HQ-DIS-MLS2(config)#int vlan 30
HQ-DIS-MLS2(config-if)#ip add 192.168.30.3 255.255.255.224
HQ-DIS-MLS2(config-if)#standby version 2
HQ-DIS-MLS2(config-if)#standby 3 ip

HQ-DIS-MLS2(config)#int vlan 40
HQ-DIS-MLS2(config-if)#ip add 192.168.40.3 255.255.255.224
HQ-DIS-MLS2(config-if)#standby version 2
HQ-DIS-MLS2(config-if)#standby 4 ip

HQ-DIS-MLS2(config)#int vlan 50
HQ-DIS-MLS2(config-if)#ip add 192.168.50.3 255.255.255.0
HQ-DIS-MLS2(config-if)#standby version 2
HQ-DIS-MLS2(config-if)#standby 5 ip

HQ-DIS-MLS2(config)#int vlan 60
HQ-DIS-MLS2(config-if)#ip add 192.168.60.3 255.255.255.192
HQ-DIS-MLS2(config-if)#standby version 2
HQ-DIS-MLS2(config-if)#standby 6 ip 192.168.60.1
HQ-DIS-MLS2(config-if)#standby 6 priority 150
HQ-DIS-MLS2(config-if)#standby 6 preempt

HQ-DIS-MLS2(config)#int vlan 70
HQ-DIS-MLS2(config-if)#ip add 192.168.70.3 255.255.255.224
HQ-DIS-MLS2(config-if)#ip helper-address 195.1.1.2
HQ-DIS-MLS2(config-if)#standby version 2
HQ-DIS-MLS2(config-if)#standby 7 ip 192.168.70.1
HQ-DIS-MLS2(config-if)#standby 7 priority 150
HQ-DIS-MLS2(config-if)#standby 7 preempt

```

HQ-DIS-MLS2(config)#int vlan 80
HQ-DIS-MLS2(config-if)#ip add 192.168.80.3 255.255.255.224
HQ-DIS-MLS2(config-if)#ip helper-address 195.1.1.2
HQ-DIS-MLS2(config-if)#standby version 2
HQ-DIS-MLS2(config-if)#standby 8 ip 192.168.80.1
HQ-DIS-MLS2(config-if)#standby 8 priority 150
HQ-DIS-MLS2(config-if)#standby 8 preempt

HQ-DIS-MLS2(config)#int vlan 90
HQ-DIS-MLS2(config-if)#ip add 192.168.90.3 255.255.255.224
HQ-DIS-MLS2(config-if)#ip helper-address 195.1.1.2
HQ-DIS-MLS2(config-if)#standby version 2
HQ-DIS-MLS2(config-if)#standby 9 ip 192.168.90.1
HQ-DIS-MLS2(config-if)#standby 9 priority 150
HQ-DIS-MLS2(config-if)#standby 9 preempt

HQ-DIS-MLS2(config)#int vlan 100
HQ-DIS-MLS2(config-if)#ip add 192.168.100.3 255.255.255.224
HQ-DIS-MLS2(config-if)#ip helper-address 195.1.1.2
HQ-DIS-MLS2(config-if)#standby version 2
HQ-DIS-MLS2(config-if)#standby 10 ip 192.168.100.1
HQ-DIS-MLS2(config-if)#standby 10 priority 150
HQ-DIS-MLS2(config-if)#standby 10 preempt

HQ-DIS-MLS2(config)#int vlan 200
HQ-DIS-MLS2(config-if)#ip add 192.168.200.3 255.255.255.224
HQ-DIS-MLS2(config-if)#standby version 2
HQ-DIS-MLS2(config-if)#standby 200 ip

```

5

Interfaces IP Addresses

Configuration

```

HQ-DIS-MLS2(config)#ip routing

HQ-DIS-MLS2(config)#int loopback 0
HQ-DIS-MLS2(config-if)#ip address 1.1.1.4 255.255.255.255

HQ-DIS-MLS2(config)#interface GigabitEthernet1/0/7
HQ-DIS-MLS2(config-if)#no switchport
HQ-DIS-MLS2(config-if)#ip address 10.0.0.13 255.255.255.252
HQ-DIS-MLS2(config-if)#ip ospf authentication message-digest
HQ-DIS-MLS2(config-if)#ip ospf message-digest-key 1 md5 DEPI

```

	<pre> HQ-DIS-MLS2(config)#interface GigabitEthernet1/0/9 HQ-DIS-MLS2(config-if)#no switchport HQ-DIS-MLS2(config-if)#ip address 10.0.0.17 255.255.255.252 HQ-DIS-MLS2(config-if)#ip ospf authentication message-digest HQ-DIS-MLS2(config-if)#ip ospf message-digest-key 1 md5 DEPI </pre>
6	OSPF Routing
	<p>Configuration</p> <pre> HQ-DIS-MLS2(config)#router ospf 1 HQ-DIS-MLS2(config-router)#router-id 1.1.1.4 HQ-DIS-MLS2(config-router)#area 0 authentication message-digest HQ-DIS-MLS2(config-router)#passive-interface default HQ-DIS-MLS2(config-router)#no passive-interface gigabitEthernet 1/0/7 HQ-DIS-MLS2(config-router)#no passive-interface gigabitEthernet 1/0/9 HQ-DIS-MLS2(config-router)#network 10.0.0.12 0.0.0.3 area 0 HQ-DIS-MLS2(config-router)#network 10.0.0.16 0.0.0.3 area 0 HQ-DIS-MLS2(config-router)#network 192.168.150.0 0.0.0.31 area 0 HQ-DIS-MLS2(config-router)#network 192.168.10.0 0.0.0.31 area 0 HQ-DIS-MLS2(config-router)#network 192.168.20.0 0.0.0.15 area 0 HQ-DIS-MLS2(config-router)#network 192.168.30.0 0.0.0.31 area 0 HQ-DIS-MLS2(config-router)#network 192.168.40.0 0.0.0.31 area 0 HQ-DIS-MLS2(config-router)#network 192.168.50.0 0.0.0.255 area 0 HQ-DIS-MLS2(config-router)#network 192.168.60.0 0.0.0.63 area 0 HQ-DIS-MLS2(config-router)#network 192.168.70.0 0.0.0.31 area 0 HQ-DIS-MLS2(config-router)#network 192.168.80.0 0.0.0.31 area 0 HQ-DIS-MLS2(config-router)#network 192.168.90.0 0.0.0.31 area 0 HQ-DIS-MLS2(config-router)#network 192.168.100.0 0.0.0.31 area 0 HQ-DIS-MLS2(config-router)#network 192.168.200.0 0.0.0.31 area 0 </pre>
7	Default Route
	<p>Configuration</p> <pre> HQ-DIS-MLS2(config)#ip route 0.0.0.0 0.0.0.0 10.0.0.14 1 HQ-DIS-MLS2(config)#ip route 0.0.0.0 0.0.0.0 10.0.0.18 10 </pre>
8	Disabled Interfaces

	Configuration HQ-DIS-MLS2(config)#int range g1/0/10-24,g1/1/1-4 HQ-DIS-MLS2(config-if-range)#shutdown HQ-DIS-MLS2(config-if-range)#switchport access vlan 999
9	NTP
	Configuration HQ-DIS-MLS2(config)#ntp authentication-key 123 md5 cisco HQ-DIS-MLS2(config)#ntp authenticate HQ-DIS-MLS2(config)#ntp trusted-key 123 HQ-DIS-MLS2(config)#ntp server 195.1.1.8
10	Sys-logs
	Configuration HQ-DIS-MLS2(config)#service timestamps log datetime msec HQ-DIS-MLS2(config)#logging 195.1.1.5
11	AAA
	Configuration HQ-DIS-MLS2(config)#username DEPI privilege 15 algorithm-type scrypt secret 123 HQ-DIS-MLS2(config)#enable algorithm-type scrypt secret depi HQ-DIS-MLS2(config)#aaa new-model HQ-DIS-MLS2(config)#tacacs-server host 195.1.1.7 key DEPI HQ-DIS-MLS2(config)#aaa authentication login default group tacacs+ local HQ-DIS-MLS2(config)#aaa authorization exec default group tacacs+ local HQ-DIS-MLS2(config)#aaa accounting exec default start-stop group tacacs+ HQ-DIS-MLS2(config)#ip domain-name HQ-DIS-MLS2.depi HQ-DIS-MLS2(config)#crypto key generate rsa general-keys modulus 1024 HQ-DIS-MLS2(config)#ip ssh version 2 HQ-DIS-MLS2(config)#line vty 0 2 HQ-DIS-MLS2(config-line)#login authentication default

	HQ-DIS-MLS2(config-line)#transport input ssh
--	--

HQ-ACC-SW1

No	Description
1	Port-Aggregation (Etherchannel) & Trunking
	Configuration HQ-ACC-SW1(config)#int range gig0/1,gig1/1 HQ-ACC-SW1(config-if-range)#channel-group 1 mode desirable HQ-ACC-SW1(config-if-range)#switchport mode trunk HQ-ACC-SW1(config-if-range)#switchport trunk native vlan 99 HQ-ACC-SW1(config-if-range)#ip dhcp snooping trust HQ-ACC-SW1(config)#int range gig2/1,gig3/1 HQ-ACC-SW1(config-if-range)#channel-group 2 mode desirable HQ-ACC-SW1(config-if-range)#switchport mode trunk HQ-ACC-SW1(config-if-range)#switchport trunk native vlan 99 HQ-ACC-SW1(config-if-range)#ip dhcp snooping trust HQ-ACC-SW1(config)#int gig4/1 HQ-ACC-SW1(config-if)#switchport mode trunk HQ-ACC-SW1(config-if)#switchport trunk native vlan 99 HQ-ACC-SW1(config-if-range)#ip dhcp snooping trust HQ-ACC-SW1(config)#int gig6/1 HQ-ACC-SW1(config-if)#switchport mode trunk HQ-ACC-SW1(config-if)#switchport trunk native vlan 99 HQ-ACC-SW1(config-if)#switchport trunk allowed vlan 15,200 HQ-ACC-SW1(config-if-range)#ip dhcp snooping trust
2	VTP
	Configuration HQ-ACC-SW1(config)#vtp version 2

	HQ-ACC-SW1(config)#vtp domain DEPI HQ-ACC-SW1(config)#vtp password 123 HQ-ACC-SW1(config)#vtp mode client
3	STP
	Configuration HQ-ACC-SW1(config)#spanning-tree mode rapid-pvst
4	Interfaces IP Addresses & Default Gateway
	Configuration HQ-ACC-SW1(config)#ip default-gateway 192.168.200.1 HQ-ACC-SW1(config-if)#int vlan 200 HQ-ACC-SW1(config-if)#ip address 192.168.200.4 255.255.255.224
5	Disabled Interfaces
	Configuration HQ-ACC-SW1(config)#int range g7/1,g8/1,g9/1 HQ-ACC-SW1(config-if-range)#shutdown HQ-ACC-SW1(config-if-range)#switchport access vlan 999
6	NTP
	Configuration HQ-ACC-SW1(config)#ntp authentication-key 123 md5 cisco HQ-ACC-SW1(config)#ntp authenticate HQ-ACC-SW1(config)#ntp trusted-key 123 HQ-ACC-SW1(config)#ntp server 195.1.1.8

7	Sys-logs
	Configuration HQ-ACC-SW1(config)#service timestamps log datetime msec HQ-ACC-SW1(config)#logging 195.1.1.5
8	Access Interfaces
	Configuration HQ-ACC-SW1(config)#interface GigabitEthernet5/1 HQ-ACC-SW1(config-if)#switchport Access Vlan 50
9	DHCP Snooping & Dynamic Arp Inspection
	Configuration HQ-ACC-SW1(config)#ip dhcp snooping HQ-ACC-SW1(config)#ip dhcp snooping vlan 10,15,20,30,40,50,60,70,80,90,100
10	Disable CDP
	Configuration HQ-ACC-SW1(config)#int g5/1 HQ-ACC-SW1(config-if)#no cdp enable
11	AAA
	Configuration HQ-ACC-SW1(config)#enable secret level 15 depi HQ-ACC-SW1(config)#username DEPI privilege 15 secret 123 HQ-ACC-SW1(config)#aaa new-model HQ-ACC-SW1(config)#tacacs-server host 195.1.1.7 key DEPI HQ-ACC-SW1(config)#aaa authentication login default group tacacs+ local HQ-ACC-SW1(config)#aaa authorization exec default group tacacs+ local

	<pre>HQ-ACC-SW1(config)#aaa accounting exec default start-stop group tacacs+ HQ-ACC-SW1(config)#ip domain-name HQ-ACC-SW1.depi HQ-ACC-SW1(config)#crypto key generate rsa general-keys modulus 1024 HQ-ACC-SW1(config)#ip ssh version 2 HQ-ACC-SW1(config)#line vty 0 2 HQ-ACC-SW1(config-line)#login authentication default HQ-ACC-SW1(config-line)#transport input ssh</pre>
--	--

HQ-ACC-SW2

No	Description
1	Port-Aggregation (Etherchannel) & Trunking
	Configuration <pre>HQ-ACC-SW2(config)#int range gig0/1,gig1/1 HQ-ACC-SW2(config-if-range)#channel-group 1 mode desirable HQ-ACC-SW2(config-if-range)#switchport mode trunk</pre>

	<p>HQ-ACC-SW2(config-if)#switchport trunk native vlan 99 HQ-ACC-SW2(config-if-range)#ip dhcp snooping trust</p> <p>HQ-ACC-SW2(config)#int range gig2/1,gig3/1 HQ-ACC-SW2(config-if-range)#channel-group 2 mode desirable HQ-ACC-SW2(config-if-range)#switchport mode trunk HQ-ACC-SW2(config-if-range)#switchport trunk native vlan 99 HQ-ACC-SW2(config-if-range)#ip dhcp snooping trust</p> <p>HQ-ACC-SW2(config)#int gig4/1 HQ-ACC-SW2(config-if)#switchport mode trunk HQ-ACC-SW2(config-if)#switchport trunk native vlan 99 HQ-ACC-SW2(config-if-range)#ip dhcp snooping trust</p> <p>HQ-ACC-SW2(config)#int gig6/1 HQ-ACC-SW2(config-if)#switchport mode trunk HQ-ACC-SW2(config-if)#switchport trunk native vlan 99 HQ-ACC-SW2(config-if)#switchport trunk allowed vlan 15,200 HQ-ACC-SW2(config-if-range)#ip dhcp snooping trust</p>
2	VTP
	<p>Configuration</p> <p>HQ-ACC-SW2(config)#vtp version 2 HQ-ACC-SW2(config)#vtp domain DEPI HQ-ACC-SW2(config)#vtp password 123 HQ-ACC-SW2(config)#vtp mode client</p>
3	STP
	<p>Configuration</p> <p>HQ-ACC-SW2(config)#spanning-tree mode rapid-pvst</p>
4	Interfaces IP Addresses & Default Gateway
	<p>Configuration</p> <p>HQ-ACC-SW2(config)#ip default-gateway 192.168.200.1 HQ-ACC-SW2(config-if)#int vlan 200 HQ-ACC-SW2(config-if)#ip address 192.168.200.6 255.255.255.224</p>

5	Disabled Interfaces
	<p>Configuration</p> <p>HQ-ACC-SW2(config)#int range g7/1,g8/1,g9/1</p> <p>HQ-ACC-SW2(config-if-range)#shutdown</p> <p>HQ-ACC-SW2(config-if-range)#switchport access vlan 999</p>
6	NTP
	<p>Configuration</p> <p>HQ-ACC-SW2(config)#ntp authentication-key 123 md5 cisco</p> <p>HQ-ACC-SW2(config)#ntp authenticate</p> <p>HQ-ACC-SW2(config)#ntp trusted-key 123</p> <p>HQ-ACC-SW2(config)#ntp server 195.1.1.8</p>
7	Sys-logs
	<p>Configuration</p> <p>HQ-ACC-SW2(config)#service timestamps log datetime msec</p> <p>HQ-ACC-SW2(config)#logging 195.1.1.5</p>
8	Access Interfaces
	<p>Configuration</p> <p>HQ-ACC-SW2(config)#interface GigabitEthernet5/1</p> <p>HQ-ACC-SW2(config-if)#SWitchport Access Vlan 50</p>
9	DHCP Snooping & Dynamic Arp Inspection
	<p>Configuration</p> <p>HQ-ACC-SW2(config)#ip dhcp snooping</p>

	HQ-ACC-SW2(config)#ip dhcp snooping vlan 10,15,20,30,40,50,60,70,80,90,100
10	Disable CDP
	<p>Configuration</p> <p>HQ-ACC-SW2(config)#int g5/1</p> <p>HQ-ACC-SW2(config-if)#no cdp enable</p>
11	AAA
	<p>Configuration</p> <p>HQ-ACC-SW2(config)#enable secret level 15 depi</p> <p>HQ-ACC-SW2(config)#username DEPI privilege 15 secret 123</p> <p>HQ-ACC-SW2(config)#aaa new-model</p> <p>HQ-ACC-SW2(config)#tacacs-server host 195.1.1.7 key DEPI</p> <p>HQ-ACC-SW2(config)#aaa authentication login default group tacacs+ local</p> <p>HQ-ACC-SW2(config)#aaa authorization exec default group tacacs+ local</p> <p>HQ-ACC-SW2(config)#aaa accounting exec default start-stop group tacacs+</p> <p>HQ-ACC-SW2(config)#ip domain-name HQ-ACC-SW2.depi</p> <p>HQ-ACC-SW2(config)#crypto key generate rsa general-keys modulus 1024</p> <p>HQ-ACC-SW2(config)#ip ssh version 2</p> <p>HQ-ACC-SW2(config)#line vty 0 2</p> <p>HQ-ACC-SW2(config-line)#login authentication default</p> <p>HQ-ACC-SW2(config-line)#transport input ssh</p>

HQ-ACC-SW3

No	Description
1	Port-Aggregation (Etherchannel) & Trunking
	Configuration

	<pre> HQ-ACC-SW3(config)#int range gig0/1,gig1/1 HQ-ACC-SW3(config-if-range)#channel-group 1 mode desirable HQ-ACC-SW3(config-if-range)#switchport mode trunk HQ-ACC-SW3(config-if-range)#switchport trunk native vlan 99 HQ-ACC-SW3(config-if-range)#ip dhcp snooping trust HQ-ACC-SW3(config)#int range gig2/1,gig3/1 HQ-ACC-SW3(config-if-range)#channel-group 2 mode desirable HQ-ACC-SW3(config-if-range)#switchport mode trunk HQ-ACC-SW3(config-if-range)#switchport trunk native vlan 99 HQ-ACC-SW3(config-if-range)#ip dhcp snooping trust HQ-ACC-SW3(config)#int gig4/1 HQ-ACC-SW3(config-if)#switchport mode trunk HQ-ACC-SW3(config-if)#switchport trunk native vlan 99 HQ-ACC-SW3(config-if-range)#ip dhcp snooping trust HQ-ACC-SW3(config)#int gig6/1 HQ-ACC-SW3(config-if)#switchport mode trunk HQ-ACC-SW3(config-if)#switchport trunk native vlan 99 HQ-ACC-SW3(config-if)#switchport trunk allowed vlan 15,200 HQ-ACC-SW3(config-if-range)#ip dhcp snooping trust </pre>
2	VTP
	<p>Configuration</p> <pre> HQ-ACC-SW3(config)#vtp version 2 HQ-ACC-SW3(config)#vtp domain DEPI HQ-ACC-SW3(config)#vtp password 123 HQ-ACC-SW3(config)#vtp mode client </pre>
3	STP
	<p>Configuration</p> <pre> HQ-ACC-SW3(config)#spanning-tree mode rapid-pvst </pre>
4	Interfaces IP Addresses & Default Gateway
	Configuration

	<p>HQ-ACC-SW3(config)#ip default-gateway 192.168.200.1</p> <p>HQ-ACC-SW3(config-if)#int vlan 200</p> <p>HQ-ACC-SW3(config-if)#ip address 192.168.200.8 255.255.255.224</p>
5	Disabled Interfaces
	<p>Configuration</p> <p>HQ-ACC-SW3(config)#int range g7/1,g8/1,g9/1</p> <p>HQ-ACC-SW3(config-if-range)#shutdown</p> <p>HQ-ACC-SW3(config-if-range)#switchport access vlan 999</p>
6	NTP
	<p>Configuration</p> <p>HQ-ACC-SW3(config)#ntp authentication-key 123 md5 cisco</p> <p>HQ-ACC-SW3(config)#ntp authenticate</p> <p>HQ-ACC-SW3(config)#ntp trusted-key 123</p> <p>HQ-ACC-SW3(config)#ntp server 195.1.1.8</p>
7	Sys-logs
	<p>Configuration</p> <p>HQ-ACC-SW3(config)#service timestamps log datetime msec</p> <p>HQ-ACC-SW3(config)#logging 195.1.1.</p>
8	Access Interfaces
	<p>Configuration</p> <p>HQ-ACC-SW3(config)#interface GigabitEthernet5/1</p> <p>HQ-ACC-SW3(config-if)#SWitchport Access Vlan 50</p>
9	DHCP Snooping & Dynamic Arp Inspection

	Configuration HQ-ACC-SW3(config)#ip dhcp snooping HQ-ACC-SW3(config)#ip dhcp snooping vlan 10,15,20,30,40,50,60,70,80,90,100
10	Disable CDP
	Configuration HQ-ACC-SW3(config)#int g5/1 HQ-ACC-SW3(config-if)#no cdp enable
11	AAA
	Configuration HQ-ACC-SW3(config)#enable secret level 15 depi HQ-ACC-SW3(config)#username DEPI privilege 15 secret 123 HQ-ACC-SW3(config)#aaa new-model HQ-ACC-SW3(config)#tacacs-server host 195.1.1.7 key DEPI HQ-ACC-SW3(config)#aaa authentication login default group tacacs+ local HQ-ACC-SW3(config)#aaa authorization exec default group tacacs+ local HQ-ACC-SW3(config)#aaa accounting exec default start-stop group tacacs+ HQ-ACC-SW3(config)#ip domain-name HQ-ACC-SW3.depi HQ-ACC-SW3(config)#crypto key generate rsa general-keys modulus 1024 HQ-ACC-SW3(config)#ip ssh version 2 HQ-ACC-SW3(config)#line vty 0 2 HQ-ACC-SW3(config-line)#login authentication default HQ-ACC-SW3(config-line)#transport input ssh

HQ-ACC-SW4

No	Description
1	Port-Aggregation (Etherchannel) & Trunking

	Configuration HQ-ACC-SW4(config)#int gig0/1 HQ-ACC-SW4(config-if)#switchport mode trunk HQ-ACC-SW4(config-if)#switchport trunk native vlan 99 HQ-ACC-SW4(config-if-range)#ip dhcp snooping trust
2	VTP
	Configuration H HQ-ACC-SW4(config)#vtp version 2 HQ-ACC-SW4(config)#vtp domain DEPI HQ-ACC-SW4(config)#vtp password 123 HQ-ACC-SW4(config)#vtp mode client
3	STP & Portfast
	Configuration HQ-ACC-SW4(config)#spanning-tree mode rapid-pvst HQ-ACC-SW4(config)#spanning-tree portfast default HQ-ACC-SW4(config)#spanning-tree portfast bpduguard default
4	Port Security & Assign Vlan & Voice Vlan
	Configuration HQ-ACC-SW4(config)#int range fastEthernet 0/1-6 HQ-ACC-SW4(config-if-range)#switchport mode access HQ-ACC-SW4(config-if-range)#switchport access vlan 10 HQ-ACC-SW4(config-if-range)#switchport voice vlan 40 HQ-ACC-SW4(config-if-range)#ip dhcp snooping limit rate 10 HQ-ACC-SW4(config-if-range)#switchport port-security HQ-ACC-SW4(config-if-range)#switchport port-security maximum 2 HQ-ACC-SW4(config-if-range)#switchport port-security mac-address sticky HQ-ACC-SW4(config-if-range)#switchport port-security violation restrict HQ-ACC-SW4(config)#int range fastEthernet 0/7-11 HQ-ACC-SW4(config-if-range)#switchport mode access HQ-ACC-SW4(config-if-range)#switchport access vlan 20

	<p>HQ-ACC-SW4(config-if-range)#ip dhcp snooping limit rate 10 HQ-ACC-SW4(config-if-range)#switchport port-security HQ-ACC-SW4(config-if-range)#switchport port-security maximum 1 HQ-ACC-SW4(config-if-range)#switchport port-security mac-address sticky HQ-ACC-SW4(config-if-range)#switchport port-security violation restrict</p>
5	Disabled Interfaces
	<p>Configuration</p> <p>HQ-ACC-SW4(config)#int range f0/12-24,g0/2 HQ-ACC-SW4(config-if-range)#shutdown HQ-ACC-SW4(config-if-range)#switchport access vlan 999</p>
6	Interfaces IP Addresses & Default Gateway
	<p>Configuration</p> <p>HQ-ACC-SW4(config)#ip default-gateway 192.168.200.1 HQ-ACC-SW4(config-if)#int vlan 200 HQ-ACC-SW4(config-if)#ip address 192.168.200.5 255.255.255.224</p>
7	NTP
	<p>Configuration</p> <p>HQ-ACC-SW4(config)#ntp authentication-key 123 md5 cisco HQ-ACC-SW4(config)#ntp authenticate HQ-ACC-SW4(config)#ntp trusted-key 123 HQ-ACC-SW4(config)#ntp server 195.1.1.8</p>
8	Sys-logs
	<p>Configuration</p> <p>HQ-ACC-SW4(config)#service timestamps log datetime msec HQ-ACC-SW4(config)#logging 195.1.1.5</p>

9	DHCP Snooping & Dynamic Arp Inspection
	Configuration HQ-ACC-SW4(config)#ip dhcp snooping HQ-ACC-SW4(config)#ip dhcp snooping vlan 10,15,20,30,40,50,60,70,80,90,100 HQ-ACC-SW4(config)#ip arp inspection vlan 10,15,20,30,40,50,60,70,80,90,100
10	Disable CDP
	Configuration HQ-ACC-SW4(config)#no cdp run HQ-ACC-SW4(config)#int g0/1 HQ-ACC-SW4(config-if)#cdp enable
11	AAA
	Configuration HQ-ACC-SW4(config)#enable secret level 15 depi HQ-ACC-SW4(config)#username DEPI privilege 15 secret 123 HQ-ACC-SW4(config)#aaa new-model HQ-ACC-SW4(config)#tacacs-server host 195.1.1.7 key DEPI HQ-ACC-SW4(config)#aaa authentication login default group tacacs+ local HQ-ACC-SW4(config)#aaa authorization exec default group tacacs+ local HQ-ACC-SW4(config)#aaa accounting exec default start-stop group tacacs+ HQ-ACC-SW4(config)#ip domain-name HQ-ACC-SW4.depi HQ-ACC-SW4(config)#crypto key generate rsa general-keys modulus 1024 HQ-ACC-SW4(config)#ip ssh version 2 HQ-ACC-SW4(config)#line vty 0 2 HQ-ACC-SW4(config-line)#login authentication default HQ-ACC-SW4(config-line)#transport input ssh

HQ-ACC-SW5

No	Description
1	Trunking
	Configuration HQ-ACC-SW5(config)#int gig0/1 HQ-ACC-SW5(config-if)#switchport mode trunk HQ-ACC-SW5(config-if)#switchport trunk native vlan 99 HQ-ACC-SW5(config-if-range)#ip dhcp snooping trust
2	VTP
	Configuration HQ-ACC-SW5(config)#vtp version 2 HQ-ACC-SW5(config)#vtp domain DEPI HQ-ACC-SW5(config)#vtp password 123 HQ-ACC-SW5(config)#vtp mode client
3	STP & Portfast
	Configuration HQ-ACC-SW5(config)#spanning-tree mode rapid-pvst HQ-ACC-SW5(config)#spanning-tree portfast default HQ-ACC-SW5(config)#spanning-tree portfast bpduguard default
4	Port Security & Assign Vlan & Voice Vlan
	Configuration HQ-ACC-SW5(config)#int range fastEthernet 0/1-6 HQ-ACC-SW5(config-if-range)#switchport mode access HQ-ACC-SW5(config-if-range)#switchport access vlan 80 HQ-ACC-SW5(config-if-range)#switchport voice vlan 40 HQ-ACC-SW5(config-if-range)#ip dhcp snooping limit rate 10 HQ-ACC-SW5(config-if-range)#switchport port-security HQ-ACC-SW5(config-if-range)#switchport port-security maximum 2 HQ-ACC-SW5(config-if-range)#switchport port-security mac-address sticky

	<pre> HQ-ACC-SW5(config-if-range)#switchport port-security violation restrict HQ-ACC-SW5(config)#int range fastEthernet 0/7-12 HQ-ACC-SW5(config-if-range)#switchport mode access HQ-ACC-SW5(config-if-range)#switchport access vlan 70 HQ-ACC-SW5(config-if-range)#switchport voice vlan 40 HQ-ACC-SW5(config-if-range)#ip dhcp snooping limit rate 10 HQ-ACC-SW5(config-if-range)#switchport port-security HQ-ACC-SW5(config-if-range)#switchport port-security maximum 2 HQ-ACC-SW5(config-if-range)#switchport port-security mac-address sticky HQ-ACC-SW5(config-if-range)#switchport port-security violation restrict HQ-ACC-SW5(config)#int range fastEthernet 0/13-18 HQ-ACC-SW5(config-if-range)#switchport mode access HQ-ACC-SW5(config-if-range)#switchport access vlan 60 HQ-ACC-SW5(config-if-range)#switchport voice vlan 40 HQ-ACC-SW5(config-if-range)#ip dhcp snooping limit rate 10 HQ-ACC-SW5(config-if-range)#switchport port-security HQ-ACC-SW5(config-if-range)#switchport port-security maximum 2 HQ-ACC-SW5(config-if-range)#switchport port-security mac-address sticky HQ-ACC-SW5(config-if-range)#switchport port-security violation restrict HQ-ACC-SW5(config)#int fa0/6,fa0/12,fa0/18 HQ-ACC-SW5(config-if-range)#switchport port-security maximum 1 </pre>
5	Disabled Interfaces
	<p>Configuration</p> <pre> HQ-ACC-SW5(config)#int range f0/19-24,g0/2 HQ-ACC-SW5(config-if-range)#shutdown HQ-ACC-SW5(config-if-range)#switchport access vlan 999 </pre>
6	Interfaces IP Addresses & Default Gateway
	<p>Configuration</p> <pre> HQ-ACC-SW5(config)#ip default-gateway 192.168.200.1 </pre>

	HQ-ACC-SW5(config-if)#int vlan 200 HQ-ACC-SW5(config-if)#ip address 192.168.200.7 255.255.255.224
7	NTP
	Configuration HQ-ACC-SW5(config)#ntp authentication-key 123 md5 cisco HQ-ACC-SW5(config)#ntp authenticate HQ-ACC-SW5(config)#ntp trusted-key 123 HQ-ACC-SW5(config)#ntp server 195.1.1.8
8	Sys-logs
	Configuration HQ-ACC-SW5(config)#service timestamps log datetime msec HQ-ACC-SW5(config)#logging 195.1.1.5
9	DHCP Snooping & Dynamic Arp Inspection
	Configuration HQ-ACC-SW5(config)#ip dhcp snooping HQ-ACC-SW5(config)#ip dhcp snooping vlan 10,15,20,30,40,50,60,70,80,90,100 HQ-ACC-SW5(config)#ip arp inspection vlan 10,15,20,30,40,50,60,70,80,90,100
10	Disable CDP
	Configuration HQ-ACC-SW5(config)#no cdp run HQ-ACC-SW5(config)#int g0/1 HQ-ACC-SW5(config-if)#cdp enable
11	

	AAA
	<p>Configuration</p> <p>HQ-ACC-SW5(config)#enable secret level 15 depi HQ-ACC-SW5(config)#username DEPI privilege 15 secret 123</p> <p>HQ-ACC-SW5(config)#aaa new-model HQ-ACC-SW5(config)#tacacs-server host 195.1.1.7 key DEPI HQ-ACC-SW5(config)#aaa authentication login default group tacacs+ local HQ-ACC-SW5(config)#aaa authorization exec default group tacacs+ local HQ-ACC-SW5(config)#aaa accounting exec default start-stop group tacacs+</p> <p>HQ-ACC-SW5(config)#ip domain-name HQ-ACC-SW5.depi HQ-ACC-SW5(config)#crypto key generate rsa general-keys modulus 1024 HQ-ACC-SW5(config)#ip ssh version 2</p> <p>HQ-ACC-SW5(config)#line vty 0 2 HQ-ACC-SW5(config-line)#login authentication default HQ-ACC-SW5(config-line)#transport input ssh</p>

HQ-ACC-SW6

No	Description
1	Trunking
	<p>Configuration</p> <p>HQ-ACC-SW6(config)#int gig0/1 HQ-ACC-SW6(config-if)#switchport mode trunk HQ-ACC-SW6(config-if)#switchport trunk native vlan 99 HQ-ACC-SW6(config-if)#ip dhcp snooping trust</p>
2	VTP

	Configuration HQ-ACC-SW6(config)#vtp version 2 HQ-ACC-SW6(config)#vtp domain DEPI HQ-ACC-SW6(config)#vtp password 123 HQ-ACC-SW6(config)#vtp mode client
3	STP & Portfast
	Configuration HQ-ACC-SW6(config)#spanning-tree mode rapid-pvst HQ-ACC-SW6(config)#spanning-tree portfast default HQ-ACC-SW6(config)#spanning-tree portfast bpdguard default
4	Port Security
	Configuration HQ-ACC-SW6(config)#int range fastEthernet 0/1-5 HQ-ACC-SW6(config-if-range)#switchport mode access HQ-ACC-SW6(config-if-range)#switchport access vlan 30 HQ-ACC-SW6(config-if-range)#switchport voice vlan 40 HQ-ACC-SW6(config-if-range)#ip dhcp snooping limit rate 10 HQ-ACC-SW6(config-if-range)#switchport port-security HQ-ACC-SW6(config-if-range)#switchport port-security maximum 2 HQ-ACC-SW6(config-if-range)#switchport port-security mac-address sticky HQ-ACC-SW6(config-if-range)#switchport port-security violation restrict HQ-ACC-SW6(config)#int range fastEthernet 0/6-10 HQ-ACC-SW6(config-if-range)#switchport mode access HQ-ACC-SW6(config-if-range)#switchport access vlan 30 HQ-ACC-SW6(config-if-range)#switchport voice vlan 40 HQ-ACC-SW6(config-if-range)#ip dhcp snooping limit rate 10 HQ-ACC-SW6(config-if-range)#switchport port-security HQ-ACC-SW6(config-if-range)#switchport port-security maximum 2 HQ-ACC-SW6(config-if-range)#switchport port-security mac-address sticky HQ-ACC-SW6(config-if-range)#switchport port-security violation restrict HQ-ACC-SW6(config)#int fa0/5,fa0/10 HQ-ACC-SW6(config-if-range)#switchport port-security maximum 1

5	Disabled Interfaces
	Configuration HQ-ACC-SW6(config)#int range f0/11-24,g0/2 HQ-ACC-SW6(config-if-range)#shutdown HQ-ACC-SW6(config-if-range)#switchport access vlan 999
6	Interfaces IP Addresses & Default Gateway
	Configuration HQ-ACC-SW6(config)#ip default-gateway 192.168.200.1 HQ-ACC-SW6(config-if)#int vlan 200 HQ-ACC-SW6(config-if)#ip address 192.168.200.9 255.255.255.224
7	NTP
	Configuration HQ-ACC-SW6(config)#ntp authentication-key 123 md5 cisco HQ-ACC-SW6(config)#ntp authenticate HQ-ACC-SW6(config)#ntp trusted-key 123 HQ-ACC-SW6(config)#ntp server 195.1.1.8
8	Sys-logs
	Configuration HQ-ACC-SW6(config)#service timestamps log datetime msec HQ-ACC-SW6(config)#logging 195.1.1.5
9	DHCP Snooping & Dynamic Arp Inspection
	Configuration

	HQ-ACC-SW4(config)#ip dhcp snooping HQ-ACC-SW6(config)#ip dhcp snooping HQ-ACC-SW6(config)#ip dhcp snooping vlan 10,15,20,30,40,50,60,70,80,90,100 HQ-ACC-SW6(config)#ip arp inspection vlan 10,15,20,30,40,50,60,70,80,90,100
10	Disable CDP
	Configuration HQ-ACC-SW6(config)#no cdp run HQ-ACC-SW6(config)#int g0/1 HQ-ACC-SW6(config-if)#cdp enable
11	AAA
	Configuration HQ-ACC-SW6(config)#enable secret level 15 depi HQ-ACC-SW6(config)#username DEPI privilege 15 secret 123 HQ-ACC-SW6(config)#aaa new-model HQ-ACC-SW6(config)#tacacs-server host 195.1.1.7 key DEPI HQ-ACC-SW6(config)#aaa authentication login default group tacacs+ local HQ-ACC-SW6(config)#aaa authorization exec default group tacacs+ local HQ-ACC-SW6(config)#aaa accounting exec default start-stop group tacacs+ HQ-ACC-SW6(config)#ip domain-name HQ-ACC-SW6.depi HQ-ACC-SW6(config)#crypto key generate rsa general-keys modulus 1024 HQ-ACC-SW6(config)#ip ssh version 2 HQ-ACC-SW6(config)#line vty 0 2 HQ-ACC-SW6(config-line)#login authentication default HQ-ACC-SW6(config-line)#transport input ssh

HQ-ACC-SW7

No	Description
1	Trunking
	Configuration HQ-ACC-SW7(config)#int range g0/1,g1/1,g2/1,g3/1 HQ-ACC-SW7(config-if-range)#switchport mode trunk HQ-ACC-SW7(config-if-range)#switchport trunk native vlan 99 HQ-ACC-SW7(config-if-range)#ip dhcp snooping trust HQ-ACC-SW7(config)#int g3/1 HQ-ACC-SW7(config-if)#switchport trunk allowed vlan 15,200
2	VTP
	Configuration HQ-ACC-SW7(config)#vtp version 2 HQ-ACC-SW7(config)#vtp domain DEPI HQ-ACC-SW7(config)#vtp password 123 HQ-ACC-SW7(config)#vtp mode client
3	STP
	Configuration HQ-ACC-SW7(config)#spanning-tree mode rapid-pvst
4	Interfaces IP Addresses & Default Gateway
	Configuration

	HQ-ACC-SW7(config)#ip default-gateway 192.168.200.1 HQ-ACC-SW7(config-if)#int vlan 200 HQ-ACC-SW7(config-if)#ip address 192.168.200.14 255.255.255.224
5	Disabled Interfaces
	Configuration HQ-ACC-SW7(config)#int range g4/1,g5/1,g6/1,g7/1,g8/1,g9/1 HQ-ACC-SW7(config-if-range)#shutdown HQ-ACC-SW7(config-if-range)#switchport access vlan 999
7	NTP
	Configuration HQ-ACC-SW7(config)#ntp authentication-key 123 md5 cisco HQ-ACC-SW7(config)#ntp authenticate HQ-ACC-SW7(config)#ntp trusted-key 123 HQ-ACC-SW7(config)#ntp server 195.1.1.8
8	Sys-logs
	Configuration HQ-ACC-SW7(config)#service timestamps log datetime msec HQ-ACC-SW7(config)#logging 195.1.1.5
9	DHCP Snooping & Dynamic Arp Inspection
	Configuration HQ-ACC-SW7(config)#ip dhcp snooping HQ-ACC-SW7(config)#ip dhcp snooping vlan 10,15,20,30,40,50,60,70,80,90,100 HQ-ACC-SW7(config)#ip arp inspection vlan 10,15,20,30,40,50,60,70,80,90,100
11	AAA

	Configuration HQ-ACC-SW7(config)#enable secret level 15 depi HQ-ACC-SW7(config)#username DEPI privilege 15 secret 123 HQ-ACC-SW7(config)#aaa new-model HQ-ACC-SW7(config)#tacacs-server host 195.1.1.7 key DEPI HQ-ACC-SW7(config)#aaa authentication login default group tacacs+ local HQ-ACC-SW7(config)#aaa authorization exec default group tacacs+ local HQ-ACC-SW7(config)#aaa accounting exec default start-stop group tacacs+ HQ-ACC-SW7(config)#ip domain-name HQ-ACC-SW7.depi HQ-ACC-SW7(config)#crypto key generate rsa general-keys modulus 1024 HQ-ACC-SW7(config)#ip ssh version 2 HQ-ACC-SW7(config)#line vty 0 2 HQ-ACC-SW7(config-line)#login authentication default HQ-ACC-SW7(config-line)#transport input ssh

HQ-ACC-SW8

No	Description
1	Trunking
	Configuration HQ-ACC-SW8(config)int g0/1 HQ-ACC-SW8(config-if)#switchport mode trunk HQ-ACC-SW8(config-if)#switchport trunk native vlan 99 HQ-ACC-SW8(config-if)#ip dhcp snooping trust
2	VTP
	Configuration

	<pre> HQ-ACC-SW8(config)#vtp version 2 HQ-ACC-SW8(config)#vtp domain DEPI HQ-ACC-SW8(config)#vtp password 123 HQ-ACC-SW8(config)#vtp mode client </pre>
3	STP
	<p>Configuration</p> <pre> HQ-ACC-SW8(config)#spanning-tree mode rapid-pvst HQ-ACC-SW8(config)#spanning-tree portfast default HQ-ACC-SW8(config)#spanning-tree portfast bpduguard default </pre>
4	Interfaces IP Addresses & Default Gateway
	<p>Configuration</p> <pre> HQ-ACC-SW7(config)#ip default-gateway 192.168.200.1 HQ-ACC-SW8(config)#ip default-gateway 192.168.200.1 HQ-ACC-SW8(config-if)#int vlan 200 HQ-ACC-SW8(config-if)#ip address 192.168.200.10 255.255.255.224 </pre>
5	Disabled Interfaces
	<p>Configuration</p> <pre> HQ-ACC-SW8(config)#int range f0/8-24,g0/2 HQ-ACC-SW8(config-if-range)#shutdown HQ-ACC-SW8(config-if-range)#switchport access vlan 999 </pre>
7	NTP
	<p>Configuration</p> <pre> H HQ-ACC-SW8(config)#ntp authentication-key 123 md5 cisco HQ-ACC-SW8(config)#ntp authenticate HQ-ACC-SW8(config)#ntp trusted-key 123 </pre>

	HQ-ACC-SW8(config)#ntp server 195.1.1.8
8	Sys-logs
	Configuration HQ-ACC-SW8(config)#service timestamps log datetime msec HQ-ACC-SW8(config)#logging 195.1.1.5
9	DHCP Snooping & Dynamic Arp Inspection
	Configuration HQ-ACC-SW8(config)#ip dhcp snooping HQ-ACC-SW8(config)#ip dhcp snooping vlan 10,15,20,30,40,50,60,70,80,90,100 HQ-ACC-SW8(config)#ip arp inspection vlan 10,15,20,30,40,50,60,70,80,90,100
10	Disable CDP
	Configuration HQ-ACC-SW8(config)#no cdp run HQ-ACC-SW8(config)#int g0/1 HQ-ACC-SW8(config-if)#cdp enable
11	AAA
	Configuration HQ-ACC-SW8(config)#enable secret level 15 depi HQ-ACC-SW8(config)#username DEPI privilege 15 secret 123 HQ-ACC-SW8(config)#aaa new-model HQ-ACC-SW8(config)#tacacs-server host 195.1.1.7 key DEPI HQ-ACC-SW8(config)#aaa authentication login default group tacacs+ local HQ-ACC-SW8(config)#aaa authorization exec default group tacacs+ local HQ-ACC-SW8(config)#aaa accounting exec default start-stop group tacacs+ HQ-ACC-SW8(config)#ip domain-name HQ-ACC-SW8.depi

```
HQ-ACC-SW8(config)#crypto key generate rsa general-keys modulus 1024
HQ-ACC-SW8(config)#ip ssh version 2

HQ-ACC-SW8(config)#line vty 0 2
HQ-ACC-SW8(config-line)#login authentication default
HQ-ACC-SW8(config-line)#transport input ssh
```

HQ-SW-CAM-F1

No	Description
1	Trunking
	Configuration HQ-SW-CAM-F1(config)int range g0/1 HQ-SW-CAM-F1(config-if)#switchport mode trunk HQ-SW-CAM-F1(config-if)#switchport trunk native vlan 99 HQ-SW-CAM-F1(config-if)#switchport trunk allowed vlan 15,200 HQ-SW-CAM-F1(config-if-range)#ip dhcp snooping trust
2	Access Interfaces
	Configuration HQ-SW-CAM-F1(config)#int range fa0/1-24 HQ-SW-CAM-F1(config-if-range)#switchport mode access HQ-SW-CAM-F1(config-if-range)#switchport access vlan 15
3	VTP
	Configuration HQ-SW-CAM-F1(config)#vtp version 2 HQ-SW-CAM-F1(config)#vtp domain DEPI HQ-SW-CAM-F1(config)#vtp password 123 HQ-SW-CAM-F1(config)#vtp mode client

4	Interfaces IP Addresses & Default Gateway
	Configuration HQ-SW-CAM-F1(config)#ip default-gateway 192.168.200.1 HQ-SW-CAM-F1(config-if)#int vlan 200 HQ-SW-CAM-F1(config-if)#ip address 192.168.200.11 255.255.255.224
5	Disabled Interfaces
	Configuration HQ-SW-CAM-F1(config)#int range fa0/4-24,g0/2 HQ-SW-CAM-F1(config-if-range)#shutdown HQ-SW-CAM-F1(config-if-range)#switchport mode access HQ-SW-CAM-F1(config-if-range)#switchport access vlan 999
6	NTP
	Configuration HQ-SW-CAM-F1(config)#ntp authentication-key 123 md5 cisco HQ-SW-CAM-F1(config)#ntp authenticate HQ-SW-CAM-F1(config)#ntp trusted-key 123 HQ-SW-CAM-F1(config)#ntp server 195.1.1.8
7	Sys-logs
	Configuration HQ-SW-CAM-F1(config)#service timestamps log datetime msec HQ-SW-CAM-F1(config)#logging 195.1.1.5
8	DHCP Snooping & Dynamic Arp Inspection

	Configuration HQ-SW-CAM-F1(config)#ip dhcp snooping HQ-SW-CAM-F1(config)#ip dhcp snooping vlan 10,15,20,30,40,50,60,70,80,90,100 HQ-SW-CAM-F1(config)#ip arp inspection vlan 10,15,20,30,40,50,60,70,80,90,100
9	Disable CDP
	Configuration H HQ-SW-CAM-F1(config)#no cdp run HQ-SW-CAM-F1(config)#int g0/1 HQ-SW-CAM-F1(config-if)#cdp enable
10	AAA
	Configuration HQ-SW-CAM-F1(config)#enable secret level 15 depi HQ-SW-CAM-F1(config)#username DEPI privilege 15 secret 123 HQ-SW-CAM-F1(config)#aaa new-model HQ-SW-CAM-F1(config)#tacacs-server host 195.1.1.7 key DEPI HQ-SW-CAM-F1(config)#aaa authentication login default group tacacs+ local HQ-SW-CAM-F1(config)#aaa authorization exec default group tacacs+ local HQ-SW-CAM-F1(config)#aaa accounting exec default start-stop group tacacs+ HQ-SW-CAM-F1(config)#ip domain-name HQ-SW-CAM-F1.depi HQ-SW-CAM-F1(config)#crypto key generate rsa general-keys modulus 1024 HQ-SW-CAM-F1(config)#ip ssh version 2 HQ-SW-CAM-F1(config)#line vty 0 2 HQ-SW-CAM-F1(config-line)#login authentication default HQ-SW-CAM-F1(config-line)#transport input ssh

HQ-SW-CAM-F2

No	Description
1	Trunking
	Configuration HQ-SW-CAM-F2(config)#int g0/1 HQ-SW-CAM-F2(config-if)#switchport mode trunk HQ-SW-CAM-F2(config-if)#switchport trunk native vlan 99 HQ-SW-CAM-F2(config-if)#switchport trunk allowed vlan 15,200 HQ-SW-CAM-F2(config-if)#ip dhcp snooping trust
2	Access Interfaces
	Configuration HQ-SW-CAM-F2(config)#int range fa0/1-24 HQ-SW-CAM-F2(config-if-range)#switchport mode access HQ-SW-CAM-F2(config-if-range)#switchport access vlan 15 HQ-SW-CAM-F2(config-if-range)#ip dhcp snooping limit rate 10
3	VTP
	Configuration HQ-SW-CAM-F2(config)#vtp version 2

	HQ-SW-CAM-F2(config)#vtp domain DEPI HQ-SW-CAM-F2(config)#vtp password 123 HQ-SW-CAM-F2(config)#vtp mode client
4	Interfaces IP Addresses & Default Gateway
	Configuration HQ-SW-CAM-F2(config)#ip default-gateway 192.168.200.1 HQ-SW-CAM-F2(config-if)#int vlan 200 HQ-SW-CAM-F2(config-if)#ip address 192.168.200.12 255.255.255.2
5	Disabled Interfaces
	Configuration HQ-SW-CAM-F2(config)#int range fa0/4-24,g0/2 HQ-SW-CAM-F2(config-if-range)#shutdown HQ-SW-CAM-F2(config-if-range)#switchport mode access HQ-SW-CAM-F2(config-if-range)#switchport access vlan 999
6	NTP
	Configuration H HQ-SW-CAM-F2(config)#ntp authentication-key 123 md5 cisco HQ-SW-CAM-F2(config)#ntp authenticate HQ-SW-CAM-F2(config)#ntp trusted-key 123 HQ-SW-CAM-F2(config)#ntp server 195.1.1.8
7	Sys-logs
	Configuration HQ-SW-CAM-F2(config)#service timestamps log datetime msec

	HQ-SW-CAM-F2(config)#logging 195.1.1.5
8	DHCP Snooping & Dynamic Arp Inspection
	Configuration HQ-SW-CAM-F2(config)#ip dhcp snooping HQ-SW-CAM-F2(config)#ip dhcp snooping vlan 10,15,20,30,40,50,60,70,80,90,100 HQ-SW-CAM-F2(config)#ip arp inspection vlan 10,15,20,30,40,50,60,70,80,90,100
9	Disable CDP
	Configuration HQ-SW-CAM-F2(config)#no cdp run HQ-SW-CAM-F2(config)#int g0/1 HQ-SW-CAM-F2(config-if)#cdp enable
10	AAA
	Configuration HQ-SW-CAM-F2(config)#enable secret level 15 depi HQ-SW-CAM-F2(config)#username DEPI privilege 15 secret 123 HQ-SW-CAM-F2(config)#aaa new-model HQ-SW-CAM-F2(config)#tacacs-server host 195.1.1.7 key DEPI HQ-SW-CAM-F2(config)#aaa authentication login default group tacacs+ local HQ-SW-CAM-F2(config)#aaa authorization exec default group tacacs+ local HQ-SW-CAM-F2(config)#aaa accounting exec default start-stop group tacacs+ HQ-SW-CAM-F2(config)#ip domain-name HQ-SW-CAM-F2.depi HQ-SW-CAM-F2(config)#crypto key generate rsa general-keys modulus 1024 HQ-SW-CAM-F2(config)#ip ssh version 2 HQ-SW-CAM-F2(config)#line vty 0 2 HQ-SW-CAM-F2(config-line)#login authentication default HQ-SW-CAM-F2(config-line)#transport input ssh HQ-SW-CAM-F1(config)#line vty 0 2

	HQ-SW-CAM-F1(config-line)#login authentication default HQ-SW-CAM-F1(config-line)#transport input ssh
--	---

HQ-SW-CAM-F3

No	Description
1	Trunking
	Configuration HQ-SW-CAM-F3(config)#int g0/1 HQ-SW-CAM-F3(config-if)#switchport mode trunk HQ-SW-CAM-F3(config-if)#switchport trunk native vlan 99 HQ-SW-CAM-F3(config-if)#switchport trunk allowed vlan 15,200
2	Access Interfaces
	Configuration HQ-SW-CAM-F3(config)#int range fa0/1-24 HQ-SW-CAM-F3(config-if-range)#switchport mode access HQ-SW-CAM-F3(config-if-range)#switchport access vlan 15
3	VTP
	Configuration HQ-SW-CAM-F3(config)#vtp version 2

	HQ-SW-CAM-F3(config)#vtp domain DEPI HQ-SW-CAM-F3(config)#vtp password 123 HQ-SW-CAM-F3(config)#vtp mode client
4	Interfaces IP Addresses & Default Gateway
	Configuration HQ-SW-CAM-F3(config)#ip default-gateway 192.168.200.1 HQ-SW-CAM-F3(config-if)#int vlan 200 HQ-SW-CAM-F3(config-if)#ip address 192.168.200.13 255.255.255.224
5	Disabled Interfaces
	Configuration HQ-SW-CAM-F3(config)#int range fa0/4-24,g0/2 HQ-SW-CAM-F3(config-if-range)#shutdown HQ-SW-CAM-F3(config-if-range)#switchport mode access HQ-SW-CAM-F3(config-if-range)#switchport access vlan 999
6	NTP
	Configuration HQ-SW-CAM-F3(config)#ntp authentication-key 123 md5 cisco HQ-SW-CAM-F3(config)#ntp authenticate HQ-SW-CAM-F3(config)#ntp trusted-key 123 HQ-SW-CAM-F3(config)#ntp server 195.1.1.8
7	Sys-logs
	Configuration HQ-SW-CAM-F3(config)#service timestamps log datetime msec HQ-SW-CAM-F3(config)#logging 195.1.1.5

8	DHCP Snooping & Dynamic Arp Inspection
	Configuration HQ-SW-CAM-F3(config)#ip dhcp snooping HQ-SW-CAM-F3(config)#ip dhcp snooping vlan 10,15,20,30,40,50,60,70,80,90,100 HQ-SW-CAM-F3(config)#ip arp inspection vlan 10,15,20,30,40,50,60,70,80,90,100
9	Disable CDP
	Configuration HQ-SW-CAM-F3(config)#no cdp run HQ-SW-CAM-F3(config)#int g0/1 HQ-SW-CAM-F3(config-if)#cdp enable
10	AAA
	Configuration HQ-SW-CAM-F3(config)#enable secret level 15 depi HQ-SW-CAM-F3(config)#username DEPI privilege 15 secret 123 HQ-SW-CAM-F3(config)#aaa new-model HQ-SW-CAM-F3(config)#tacacs-server host 195.1.1.7 key DEPI HQ-SW-CAM-F3(config)#aaa authentication login default group tacacs+ local HQ-SW-CAM-F3(config)#aaa authorization exec default group tacacs+ local HQ-SW-CAM-F3(config)#aaa accounting exec default start-stop group tacacs+ HQ-SW-CAM-F3(config)#ip domain-name HQ-SW-CAM-F3.depi HQ-SW-CAM-F3(config)#crypto key generate rsa general-keys modulus 1024 HQ-SW-CAM-F3(config)#ip ssh version 2 HQ-SW-CAM-F3(config)#line vty 0 2 HQ-SW-CAM-F3(config-line)#login authentication default

	HQ-SW-CAM-F3(config-line)#transport input ssh
--	---

HQ-SW-CAM-F4

No	Description
1	Trunking
	Configuration HQ-SW-CAM-F4(config)#int g0/1 HQ-SW-CAM-F4(config-if)#switchport mode trunk HQ-SW-CAM-F4(config-if)#switchport trunk native vlan 99 HQ-SW-CAM-F4(config-if)#switchport trunk allowed vlan 15,200 HQ-SW-CAM-F4(config-if)#ip dhcp snooping trust
2	Access Interfaces
	Configuration H HQ-SW-CAM-F4(config)#int range fa0/1-24 HQ-SW-CAM-F4(config-if-range)#switchport mode access HQ-SW-CAM-F4(config-if-range)#switchport access vlan 15 HQ-SW-CAM-F4(config-if-range)#ip dhcp snooping limit rate 10
3	VTP

	Configuration HQ-SW-CAM-F4(config)#vtp version 2 HQ-SW-CAM-F4(config)#vtp domain DEPI HQ-SW-CAM-F4(config)#vtp password 123 HQ-SW-CAM-F4(config)#vtp mode client
4	Interfaces IP Addresses & Default Gateway
	Configuration HQ-SW-CAM-F4(config)#ip default-gateway 192.168.200.1 HQ-SW-CAM-F4(config-if)#int vlan 200 HQ-SW-CAM-F4(config-if)#ip address 192.168.200.15 255.255.255.224
5	Disabled Interfaces
	Configuration HQ-SW-CAM-F4(config)#int range fa0/4-24,g0/2 HQ-SW-CAM-F4(config-if-range)#shutdown HQ-SW-CAM-F4(config-if-range)#switchport mode access HQ-SW-CAM-F4(config-if-range)#switchport access vlan 999
6	NTP
	Configuration HQ-SW-CAM-F4(config)#ntp authentication-key 123 md5 cisco HQ-SW-CAM-F4(config)#ntp authenticate HQ-SW-CAM-F4(config)#ntp trusted-key 123 HQ-SW-CAM-F4(config)#ntp server 195.1.1.8
7	Sys-logs

	<p>Configuration</p> <p>HQ-SW-CAM-F4(config)#service timestamps log datetime msec</p> <p>HQ-SW-CAM-F4(config)#logging 195.1.1.5</p>
8	DHCP Snooping & Dynamic Arp Inspection
	<p>Configuration</p> <p>W-CAM-F4(config)#ip dhcp snooping</p> <p>HQ-SW-CAM-F4(config)#ip dhcp snooping vlan 10,15,20,30,40,50,60,70,80,90,100</p> <p>HQ-SW-CAM-F4(config)#ip arp inspection vlan 10,15,20,30,40,50,60,70,80,90,100</p>
9	Disable CDP
	<p>Configuration</p> <p>HQ-SW-CAM-F4(config)#no cdp run</p> <p>HQ-SW-CAM-F4(config)#int g0/1</p> <p>HQ-SW-CAM-F4(config-if)#cdp enable</p>
10	AAA
	<p>Configuration</p> <p>HQ-SW-CAM-F4(config)#enable secret level 15 depi</p> <p>HQ-SW-CAM-F4(config)#username DEPI privilege 15 secret 123</p> <p>HQ-SW-CAM-F4(config)#aaa new-model</p> <p>HQ-SW-CAM-F4(config)#tacacs-server host 195.1.1.7 key DEPI</p> <p>HQ-SW-CAM-F4(config)#aaa authentication login default group tacacs+ local</p> <p>HQ-SW-CAM-F4(config)#aaa authorization exec default group tacacs+ local</p> <p>HQ-SW-CAM-F4(config)#aaa accounting exec default start-stop group tacacs+</p> <p>HQ-SW-CAM-F4(config)#ip domain-name HQ-SW-CAM-F4.depi</p> <p>HQ-SW-CAM-F4(config)#crypto key generate rsa general-keys modulus 1024</p> <p>HQ-SW-CAM-F4(config)#ip ssh version 2</p> <p>HQ-SW-CAM-F4(config)#line vty 0 2</p> <p>HQ-SW-CAM-F4(config-line)#login authentication default</p>

	HQ-SW-CAM-F4(config-line)#transport input ssh
--	---

B1-EdgeRouter

No	Description
1	Interfaces IP Addresses
	Configuration B1-EdgeRouter(config)#interface GigabitEthernet0/0/0 B1-EdgeRouter(config-if)#no shutdown B1-EdgeRouter(config-if)#ip address 10.1.0.1 255.255.255.252 B1-EdgeRouter(config-if)#ip ospf authentication message-digest B1-EdgeRouter(config-if)#ip ospf message-digest-key 1 md5 DEPI B1-EdgeRouter(config)#interface GigabitEthernet0/0/2 B1-EdgeRouter(config-if)#shutdown B1-EdgeRouter(config-if)#ip address 50.24.32.26 255.255.255.252 B1-EdgeRouter(config)#int loopback 1 B1-EdgeRouter(config-if)#ip address 1.2.1.2 255.255.255.255

2	Default Route
	Configuration B1-EdgeRouter(config)#ip route 0.0.0.0 0.0.0.0 50.24.32.25
3	OSPF Routing
	Configuration B1-EdgeRouter(config)#router ospf 1 B1-EdgeRouter(config-router)#router-id 1.2.1.2 B1-EdgeRouter(config-router)#network 10.1.0.0 0.0.0.3 area 0 B1-EdgeRouter(config-router)#area 0 authentication message-digest
4	NTP
	Configuration B1-EdgeRouter(config)#ntp authentication-key 123 md5 cisco B1-EdgeRouter(config)#ntp authenticate B1-EdgeRouter(config)#ntp trusted-key 123 B1-EdgeRouter(config)#ntp server 195.1.1.8
5	Sys-logs
	Configuration B1-EdgeRouter(config)#service timestamps log datetime msec B1-EdgeRouter(config)#logging 195.1.1.5
6	Disable CDP
	Configuration

	HQ-EdgeRouter(config)#int g0/0/2 HQ-EdgeRouter(config-if)#no cdp ena
9	AAA
	Configuration B1-EdgeRouter(config)#username DEPI privilege 15 secret 123 B1-EdgeRouter(config)#enable secret level 15 depi B1-EdgeRouter(config)#aaa new-model B1-EdgeRouter(config)#tacacs-server host 10.10.0.4 key DEPI B1-EdgeRouter(config)#aaa authentication login default group tacacs+ local B1-EdgeRouter(config)#aaa authorization exec default group tacacs+ local B1-EdgeRouter(config)#aaa accounting exec default start-stop group tacacs+ B1-EdgeRouter(config)#ip domain-name B1-CORE-MLS1.depi B1-EdgeRouter(config)#crypto key generate rsa general-keys modulus 1024 B1-EdgeRouter(config)#ip ssh version 2 B1-EdgeRouter(config)#line vty 0 2 B1-EdgeRouter(config-line)#login authentication default B1-EdgeRouter(config-line)#transport input ssh

B1-NGFW

No	Description
1	Interfaces IP Addresses
	Configuration B1-NGFW(config)#interface GigabitEthernet1/1 B1-NGFW(config-if)#no shutdown B1-NGFW(config-if)#ip address 10.1.0.2 255.255.255.252 B1-NGFW(config-if)#nameif OUTSIDE B1-NGFW(config-if)#security-level 0

	<pre> B1-NGFW(config-if)#ip ospf authentication message-digest B1-NGFW(config-if)#ip ospf message-digest-key 1 md5 DEPI B1-NGFW(config)#interface GigabitEthernet1/2 B1-NGFW(config-if)#no shutdown B1-NGFW(config-if)#ip address 10.1.0.9 255.255.255.252 B1-NGFW(config-if)#nameif INSIDE1 B1-NGFW(config-if)#security-level 100 B1-NGFW(config-if)#ip ospf authentication message-digest B1-NGFW(config-if)#ip ospf message-digest-key 1 md5 DEPI B1-NGFW(config)#interface GigabitEthernet1/3 B1-NGFW(config-if)#no shutdown B1-NGFW(config-if)#ip address 10.1.0.5 255.255.255.252 B1-NGFW(config-if)#nameif INSIDE2 B1-NGFW(config-if)#security-level 100 B1-NGFW(config-if)#ip ospf authentication message-digest B1-NGFW(config-if)#ip ospf message-digest-key 1 md5 DEPI B1-NGFW(config)#interface GigabitEthernet1/4 B1-NGFW(config-if)#no shutdown B1-NGFW(config-if)#ip address 10.1.0.13 255.255.255.252 B1-NGFW(config-if)#nameif DMZ B1-NGFW(config-if)#security-level 50 B1-NGFW(config-if)#ip ospf authentication message-digest B1-NGFW(config-if)#ip ospf message-digest-key 1 md5 DEPI </pre>
2	OSPF Routing
	<p>Configuration</p> <pre> B1-NGFW(config)#router ospf 1 B1-NGFW(config-router)#router-id 1.2.1.1 B1-NGFW(config-router)#network 10.1.0.0 255.255.255.252 area 0 B1-NGFW(config-router)#network 10.1.0.4 255.255.255.252 area 0 B1-NGFW(config-router)#network 10.1.0.8 255.255.255.252 area 0 B1-NGFW(config-router)#network 10.1.0.12 255.255.255.252 area 0 </pre>
3	Default Route
	<p>Configuration</p> <pre> B1-NGFW(config)#route OUTSIDE 0.0.0.0 0.0.0.0 10.1.0.2 </pre>

4	Access Lists (ACLs) Configuration
	<p>Configuration</p> <pre> access-list DMZ-INSIDE extended permit udp host 10.10.0.2 any eq bootps access-list DMZ-INSIDE extended permit udp host 10.10.0.2 any eq bootpc access-group DMZ-INSIDE in interface DMZ access-list Inside extended permit udp any host 10.10.0.3 eq 514 access-list Inside extended permit udp any host 10.10.0.2 eq bootps access-list Inside extended permit udp any host 10.10.0.2 eq bootpc access-group Inside in interface INSIDE1 access-group Inside in interface INSIDE2 </pre>
5	NTP
	<p>Configuration</p> <pre> HQ-NGFW1(config)#ntp authentication-key 123 md5 cisco HQ-NGFW1(config)#ntp authenticate HQ-NGFW1(config)#ntp trusted-key 123 HQ-NGFW1(config)#ntp server 195.1.1.8 </pre>

B1-DMZ-MLS

No	Description
1	Create Vlans

	Configuration B1-DMZ-MLS(config)#vlan 40 B1-DMZ-MLS(config-vlan)#name Servers B1-DMZ-MLS(config)#vlan 999 B1-DMZ-MLS(config-vlan)#name PARKING_VLAN
2	OSPF Routing
	Configuration B1-DMZ-MLS(config)#router ospf 1 B1-DMZ-MLS(config-router)#router-id 1.2.1.5 B1-DMZ-MLS(config-router)#network 10.1.0.12 0.0.0.3 area 0 B1-DMZ-MLS(config-router)#network 10.10.0.0 0.0.0.7 area 0 B1-DMZ-MLS(config-router)#area 0 authentication message-digest
3	Interfaces IP Addresses
	Configuration B1-DMZ-MLS(config)#ip routing B1-DMZ-MLS(config)#int loopback 1 B1-DMZ-MLS(config-if)#ip address 1.2.1.5 255.255.255.255 B1-DMZ-MLS(config)#interface GigabitEthernet0/1 B1-DMZ-MLS(config-if)#no shutdown B1-DMZ-MLS(config-if)#no switchport B1-DMZ-MLS(config-if)#ip address 10.1.0.14 255.255.255.252 B1-DMZ-MLS(config-if)#ip ospf authentication message-digest B1-DMZ-MLS(config-if)#ip ospf message-digest-key 1 md5 DEPI B1-DMZ-MLS(config)#int vlan 40 B1-DMZ-MLS(config-if)#ip address 10.10.0.1 255.255.255.248 B1-DMZ-MLS(config-if)#no shutdown B1-DMZ-MLS(config-if)#no switchport B1-DMZ-MLS(config-if)#ip address 10.1.0.14 255.255.255.252 B1-DMZ-MLS(config-if)#ip ospf authentication message-digest B1-DMZ-MLS(config-if)#ip ospf message-digest-key 1 md5 DEPI B1-DMZ-MLS(config)#int vlan 40

	B1-DMZ-MLS(config-if)#ip address 10.10.0.1 255.255.255.248
4	STP
	Configuration B1-DMZ-MLS(config)#no spanning-tree vlan 1,40,999 B1-DMZ-MLS(config)#spanning-tree portfast default B1-DMZ-MLS(config)#spanning-tree portfast bpduguard default
5	OSPF Routing
	Configuration B1-DMZ-MLS(config)#router ospf 1 B1-DMZ-MLS(config-router)#router-id 1.2.1.5 B1-DMZ-MLS(config-router)#network 10.1.0.12 0.0.0.3 area 0 B1-DMZ-MLS(config-router)#network 10.10.0.0 0.0.0.7 area 0 B1-DMZ-MLS(config-router)#area 0 authentication message-digest
6	Default Route
	Configuration B1-DMZ-MLS(config)#ip route 0.0.0.0 0.0.0.0 10.1.0.13
7	Disabled Interfaces
	Configuration B1-DMZ-MLS(config)#int range fa0/4-24,g0/2 B1-DMZ-MLS(config-if-range)#switchport mode access B1-DMZ-MLS(config-if-range)#switchport access vlan 999
8	NTP

Configuration

```
HQ-DMZ-MLS(config)#ntp authentication-key 123 md5 cisco
HQ-DMZ-MLS(config)#ntp authenticate
HQ-DMZ-MLS(config)#ntp trusted-key 123
HQ-DMZ-MLS(config)#ntp server 195.1.1.8
```

B1-CORE-MLS1

No	Description
1	Create Vlans
	Configuration B1-CORE-MLS1(config)#vlan 15 B1-CORE-MLS1(config-vlan)#name CCTV B1-CORE-MLS1(config)#vlan 20 B1-CORE-MLS1(config-vlan)#name ATM B1-CORE-MLS1(config)#vlan 30 B1-CORE-MLS1(config-vlan)#name Management B1-CORE-MLS1(config)#vlan 40 B1-CORE-MLS1(config-vlan)#name Voice B1-CORE-MLS1(config)#vlan 50

	B1-CORE-MLS1(config-vlan)#name Guest B1-CORE-MLS1(config)#vlan 60 B1-CORE-MLS1(config-vlan)#name Retail_Banking B1-CORE-MLS1(config)#vlan 70 B1-CORE-MLS1(config-vlan)#name Credits_and_Loans B1-CORE-MLS1(config)#vlan 80 B1-CORE-MLS1(config-vlan)#name Customer_Service B1-CORE-MLS1(config)#vlan 90 B1-CORE-MLS1(config-vlan)#name IT B1-CORE-MLS1(config)#vlan 99 B1-CORE-MLS1(config-vlan)#name Native B1-CORE-MLS1(config)#vlan 200 B1-CORE-MLS1(config-vlan)#name Manage B1-CORE-MLS1(config)#vlan 999 B1-CORE-MLS1(config-vlan)#name PARKING_VLAN
2	Interfaces IP Addresses & HSRB
	Configuration B1-CORE-MLS1(config)#ip routing B1-CORE-MLS1(config)#interface loopback 1 B1-CORE-MLS1(config-if)#ip address 1.2.1.4 255.255.255.255 B1-CORE-MLS1(config)#interface GigabitEthernet1/0/1 B1-CORE-MLS1(config-if)#no shutdown B1-CORE-MLS1(config-if)#no switchport B1-CORE-MLS1(config-if)#ip address 10.1.0.10 255.255.255.252 B1-CORE-MLS1(config-if)#ip ospf authentication message-digest B1-CORE-MLS1(config-if)#ip ospf message-digest-key 1 md5 DEPI B1-CORE-MLS1(config)#int vlan 15 B1-CORE-MLS1(config-if)#ip address 192.168.151.2 255.255.255.240 B1-CORE-MLS1(config-if)#standby version 2 B1-CORE-MLS1(config-if)#standby 15 ip B1-CORE-MLS1(config)#int vlan 20 B1-CORE-MLS1(config-if)#ip address 192.168.21.2 255.255.255.240 B1-CORE-MLS1(config-if)#ip helper-address 10.10.0.2

```

B1-CORE-MLS1(config-if)#standby version 2
B1-CORE-MLS1(config-if)#standby 2 ip 192.168.21.1
B1-CORE-MLS1(config-if)#standby 2 priority 150
B1-CORE-MLS1(config-if)#standby 2 preempt

B1-CORE-MLS1(config)#int vlan 30
B1-CORE-MLS1(config-if)#ip address 192.168.31.2 255.255.255.240
B1-CORE-MLS1(config-if)#ip helper-address 10.10.0.2
B1-CORE-MLS1(config-if)#standby version 2
B1-CORE-MLS1(config-if)#standby 3 ip 192.168.31.1
B1-CORE-MLS1(config-if)#standby 3 priority 150
B1-CORE-MLS1(config-if)#standby 3 preempt

B1-CORE-MLS1(config)#int vlan 40
B1-CORE-MLS1(config-if)#ip address 192.168.41.2 255.255.255.0
B1-CORE-MLS1(config-if)#ip helper-address 10.10.0.2
B1-CORE-MLS1(config-if)#standby version 2
B1-CORE-MLS1(config-if)#standby 4 ip 192.168.41.1
B1-CORE-MLS1(config-if)#standby 4 priority 150
B1-CORE-MLS1(config-if)#standby 4 preempt

B1-CORE-MLS1(config)#int vlan 50
B1-CORE-MLS1(config-if)#ip address 192.168.51.2 255.255.255.0
B1-CORE-MLS1(config-if)#ip helper-address 10.10.0.2
B1-CORE-MLS1(config-if)#standby version 2
B1-CORE-MLS1(config-if)#standby 5 ip 192.168.51.1
B1-CORE-MLS1(config-if)#standby 5 priority 150
B1-CORE-MLS1(config-if)#standby 5 preempt

B1-CORE-MLS1(config)#int vlan 60
B1-CORE-MLS1(config-if)#ip address 192.168.61.2 255.255.255.240
B1-CORE-MLS1(config-if)#standby version 2
B1-CORE-MLS1(config-if)#standby 6 ip

B1-CORE-MLS1(config)#int vlan 70
B1-CORE-MLS1(config-if)#ip address 192.168.71.2 255.255.255.240
B1-CORE-MLS1(config-if)#standby version 2
B1-CORE-MLS1(config-if)#standby 7 ip

B1-CORE-MLS1(config)#int vlan 80
B1-CORE-MLS1(config-if)#ip address 192.168.81.2 255.255.255.240
B1-CORE-MLS1(config-if)#standby version 2
B1-CORE-MLS1(config-if)#standby 8 ip

B1-CORE-MLS1(config)#int vlan 90
B1-CORE-MLS1(config-if)#ip address 192.168.91.2 255.255.255.240

```

	<pre> B1-CORE-MLS1(config-if)#standby version 2 B1-CORE-MLS1(config-if)#standby 9 ip B1-CORE-MLS1(config)#int vlan 200 B1-CORE-MLS1(config-if)#ip address 192.168.200.2 255.255.255.248 B1-CORE-MLS1(config-if)#standby version 2 B1-CORE-MLS1(config-if)#standby 200 ip 192.168.200.1 B1-CORE-MLS1(config-if)#standby 200 priority 150 B1-CORE-MLS1(config-if)#standby 200 preempt </pre>
3	VTP
	<p>Configuration</p> <pre> B1-CORE-MLS1(config)#vtp version 2 B1-CORE-MLS1(config)#vtp domain DEPI B1-CORE-MLS1(config)#vtp password 123 B1-CORE-MLS1(config)#vtp mode server </pre>
4	STP
	<p>Configuration</p> <pre> B1-CORE-MLS1(config)#spanning-tree mode rapid-pvst B1-CORE-MLS1(config)#spanning-tree vlan 1,15,20,30,40,50,60,70,80,90,99,200, 999 root primary </pre>
5	Trunking
	<p>Configuration</p> <pre> B1-CORE-MLS1(config)#interface range g1/0/2,g1/0/3,g1/0/4 B1-CORE-MLS1(config-if-range)#switchport mode trunk B1-CORE-MLS1(config-if-range)#switchport trunk native vlan 99 </pre>
6	OSPF Routing
	<p>Configuration</p> <pre> B1-CORE-MLS1(config)#router ospf 1 B1-CORE-MLS1(config-router)#router-id 1.2.1.4 </pre>

	B1-CORE-MLS1(config-router)#area 0 authentication message-digest B1-CORE-MLS1(config-router)#passive-interface Default B1-CORE-MLS1(config-router)#no passive-interface g1/0/1 B1-CORE-MLS1(config-router)#network 10.1.0.8 0.0.0.3 area 0 B1-CORE-MLS1(config-router)#network 192.168.151.0 0.0.0.15 area 0 B1-CORE-MLS1(config-router)#network 192.168.21.0 0.0.0.15 area 0 B1-CORE-MLS1(config-router)#network 192.168.31.0 0.0.0.15 area 0 B1-CORE-MLS1(config-router)#network 192.168.41.0 0.0.0.255 area 0 B1-CORE-MLS1(config-router)#network 192.168.51.0 0.0.0.255 area 0 B1-CORE-MLS1(config-router)#network 192.168.61.0 0.0.0.15 area 0 B1-CORE-MLS1(config-router)#network 192.168.71.0 0.0.0.15 area 0 B1-CORE-MLS1(config-router)#network 192.168.81.0 0.0.0.15 area 0 B1-CORE-MLS1(config-router)#network 192.168.91.0 0.0.0.15 area 0 B1-CORE-MLS1(config-router)#network 192.168.200.0 0.0.0.7 area 0
7	Default Route
	Configuration B1-CORE-MLS1(config)#ip route 0.0.0.0 0.0.0.0 10.1.0.9
8	Disabled Interfaces
	Configuration B1-CORE-MLS1(config)#int range g1/0/5-24,g1/1/1-4 B1-CORE-MLS1(config-if-range)#shutdown B1-CORE-MLS1(config-if-range)#switchport access vlan 999
9	Sys-logs
	Configuration B1-CORE-MLS2(config)#service timestamps log datetime msec B1-CORE-MLS2(config)#logging 10.10.0.3
10	DHCP Snooping & Dynamic Arp Inspection

	Configuration B1-CORE-MLS1(config)#ip dhcp snooping B1-CORE-MLS1(config)#ip dhcp snooping vlan 15,20,30,40,50,60,70,80,90 B1-CORE-MLS1(config)#interface range g1/0/2-4 B1-CORE-MLS1(config-if)#ip dhcp snooping trus
11	AAA
	Configuration B1-CORE-MLS1(config)#username DEPI privilege 15 algorithm-type scrypt secret 123 B1-CORE-MLS1(config)#enable algorithm-type scrypt secret depi B1-CORE-MLS1(config)#aaa new-model B1-CORE-MLS1(config)#tacacs-server host 10.10.0.4 key DEPI B1-CORE-MLS1(config)#aaa authentication login default group tacacs+ local B1-CORE-MLS1(config)#aaa authorization exec default group tacacs+ local B1-CORE-MLS1(config)#aaa accounting exec default start-stop group tacacs+ B1-CORE-MLS1(config)#ip domain-name B1-CORE-MLS1.depi B1-CORE-MLS1(config)#crypto key generate rsa general-keys modulus 1024 B1-CORE-MLS1(config)#ip ssh version 2 B1-CORE-MLS1(config)#line vty 0 2 B1-CORE-MLS1(config-line)#login authentication default B1-CORE-MLS1(config-line)#transport input ssh

B1-CORE-MLS2

No	Description
1	Interfaces IP Addresses & HSRB
	Configuration B1-CORE-MLS2(config)#ip routing

```

B1-CORE-MLS2(config)#interface loopback 1
B1-CORE-MLS2(config-if)#ip address 1.2.1.3 255.255.255.255

B1-CORE-MLS2(config)#interface GigabitEthernet1/0/1
B1-CORE-MLS2(config-if)#no shutdown
B1-CORE-MLS2(config-if)#no switchport
B1-CORE-MLS2(config-if)#ip address 10.1.0.6 255.255.255.252
B1-CORE-MLS2(config-if)#ip ospf authentication message-digest
B1-CORE-MLS2(config-if)#ip ospf message-digest-key 1 md5 DEPI

B1-CORE-MLS2(config)#int vlan 15
B1-CORE-MLS2(config-if)#ip address 192.168.151.3 255.255.255.240
B1-CORE-MLS2(config-if)#ip helper-address 10.10.0.2
B1-CORE-MLS2(config-if)#standby version 2
B1-CORE-MLS2(config-if)#standby 15 ip 192.168.151.1
B1-CORE-MLS2(config-if)#standby 15 priority 150
B1-CORE-MLS2(config-if)#standby 15 preempt

B1-CORE-MLS2(config)#int vlan 20
B1-CORE-MLS2(config-if)#ip address 192.168.21.3 255.255.255.240
B1-CORE-MLS2(config-if)#standby version 2
B1-CORE-MLS2(config-if)#standby 2 ip

B1-CORE-MLS2(config)#int vlan 30
B1-CORE-MLS2(config-if)#ip address 192.168.31.3 255.255.255.240
B1-CORE-MLS2(config-if)#standby version 2
B1-CORE-MLS2(config-if)#standby 3 ip

B1-CORE-MLS2(config)#int vlan 40
B1-CORE-MLS2(config-if)#ip address 192.168.41.3 255.255.255.0
B1-CORE-MLS2(config-if)#standby version 2
B1-CORE-MLS2(config-if)#standby 4 ip

B1-CORE-MLS2(config)#int vlan 50
B1-CORE-MLS2(config-if)#ip address 192.168.51.3 255.255.255.0
B1-CORE-MLS2(config-if)#standby version 2
B1-CORE-MLS2(config-if)#standby 5 ip

B1-CORE-MLS2(config)#int vlan 60
B1-CORE-MLS2(config-if)#ip address 192.168.61.3 255.255.255.240
B1-CORE-MLS2(config-if)#ip helper-address 10.10.0.2
B1-CORE-MLS2(config-if)#standby version 2
B1-CORE-MLS2(config-if)#standby 6 ip 192.168.61.1
B1-CORE-MLS2(config-if)#standby 6 priority 150

```

	<pre> B1-CORE-MLS2(config-if)#standby 6 preempt B1-CORE-MLS2(config)#int vlan 70 B1-CORE-MLS2(config-if)#ip address 192.168.71.3 255.255.255.240 B1-CORE-MLS2(config-if)#ip helper-address 10.10.0.2 B1-CORE-MLS2(config-if)#standby version 2 B1-CORE-MLS2(config-if)#standby 7 ip 192.168.71.1 B1-CORE-MLS2(config-if)#standby 7 priority 150 B1-CORE-MLS2(config-if)#standby 7 preempt B1-CORE-MLS2(config)#int vlan 80 B1-CORE-MLS2(config-if)#ip address 192.168.81.3 255.255.255.240 B1-CORE-MLS2(config-if)#ip helper-address 10.10.0.2 B1-CORE-MLS2(config-if)#standby version 2 B1-CORE-MLS2(config-if)#standby 8 ip 192.168.81.1 B1-CORE-MLS2(config-if)#standby 8 priority 150 B1-CORE-MLS2(config-if)#standby 8 preempt B1-CORE-MLS2(config)#int vlan 90 B1-CORE-MLS2(config-if)#ip address 192.168.90.3 255.255.255.240 B1-CORE-MLS2(config-if)#ip helper-address 10.10.0.2 B1-CORE-MLS2(config-if)#standby version 2 B1-CORE-MLS2(config-if)#standby 9 ip 192.168.90.1 B1-CORE-MLS2(config-if)#standby 9 priority 150 B1-CORE-MLS2(config-if)#standby 9 preempt B1-CORE-MLS2(config-if)#int vlan 200 B1-CORE-MLS2(config-if)#ip address 192.168.200.3 255.255.255.248 B1-CORE-MLS2(config-if)#standby version 2 B1-CORE-MLS2(config-if)#standby 200 ip </pre>
2	Trunking
	<p>Configuration</p> <pre> B1-CORE-MLS2(config)#interface range g1/0/2,g1/0/3,g1/0/4 B1-CORE-MLS2(config-if-range)#switchport mode trunk B1-CORE-MLS2(config-if-range)#switchport trunk native vlan 99 </pre>
3	VTP

	Configuration B1-CORE-MLS2(config)#vtp version 2 B1-CORE-MLS2(config)#vtp domain DEPI B1-CORE-MLS2(config)#vtp password 123 B1-CORE-MLS2(config)#vtp mode client
4	STP
	Configuration B1-CORE-MLS2(config)#spanning-tree mode rapid-pvst B1-CORE-MLS2(config)#spanning-tree vlan 1,15,20,30,40,50,60,70,80,90,99,200,999 root secondary
5	OSPF Routing
	Configuration B1-CORE-MLS2(config)#router ospf 1 B1-CORE-MLS2(config-router)#router-id 1.2.1.3 B1-CORE-MLS2(config-router)#area 0 authentication message-digest B1-CORE-MLS2(config-router)#passive-interface Default B1-CORE-MLS2(config-router)#no passive-interface g1/0/1 B1-CORE-MLS2(config-router)#network 10.1.0.4 0.0.0.3 area 0 B1-CORE-MLS2(config-router)#network 192.168.151.0 0.0.0.15 area 0 B1-CORE-MLS2(config-router)#network 192.168.21.0 0.0.0.15 area 0 B1-CORE-MLS2(config-router)#network 192.168.31.0 0.0.0.15 area 0 B1-CORE-MLS2(config-router)#network 192.168.41.0 0.0.0.255 area 0 B1-CORE-MLS2(config-router)#network 192.168.51.0 0.0.0.255 area 0 B1-CORE-MLS2(config-router)#network 192.168.61.0 0.0.0.15 area 0 B1-CORE-MLS2(config-router)#network 192.168.71.0 0.0.0.15 area 0 B1-CORE-MLS2(config-router)#network 192.168.81.0 0.0.0.15 area 0 B1-CORE-MLS2(config-router)#network 192.168.91.0 0.0.0.15 area 0 B1-CORE-MLS2(config-router)#network 192.168.200.0 0.0.0.7 area 0
6	Default Route
	Configuration B1-CORE-MLS2(config)#ip route 0.0.0.0 0.0.0.0 10.1.0.5

7	Disabled Interfaces
	Configuration B1-CORE-MLS2(config)#int range g1/0/5-24,g1/1/1-4 B1-CORE-MLS2(config-if-range)#shutdown B1-CORE-MLS2(config-if-range)#switchport access vlan 999
8	Sys-logs
	Configuration B1-CORE-MLS2(config)#service timestamps log datetime msec B1-CORE-MLS2(config)#logging 10.10.0.3
9	DHCP Snooping & Dynamic Arp Inspection
	Configuration B1-CORE-MLS1(config)#ip dhcp snooping B1-CORE-MLS1(config)#ip dhcp snooping vlan 15,20,30,40,50,60,70,80,90 B1-CORE-MLS1(config)#interface range g1/0/2-4 B1-CORE-MLS1(config-if)#ip dhcp snooping trust
10	AAA
	Configuration B1-CORE-MLS2(config)#username DEPI privilege 15 algorithm-type scrypt secret 123 B1-CORE-MLS2(config)#enable algorithm-type scrypt secret depi B1-CORE-MLS2(config)#aaa new-model B1-CORE-MLS2(config)#tacacs-server host 10.10.0.4 key DEPI B1-CORE-MLS2(config)#aaa authentication login default group tacacs+ local

```

B1-CORE-MLS2(config)#aaa authorization exec default group tacacs+ local
B1-CORE-MLS2(config)#aaa accounting exec default start-stop group tacacs+

B1-CORE-MLS2(config)#ip domain-name B1-CORE-MLS2.depi
B1-CORE-MLS2(config)#crypto key generate rsa general-keys modulus 1024
B1-CORE-MLS2(config)#ip ssh version 2

B1-CORE-MLS2(config)#line vty 0 2
B1-CORE-MLS2(config-line)#login authentication default
B1-CORE-MLS2(config-line)#transport input ssh

```

B1-ACC-SW1

No	Description
1	Trunking & Access Interfaces
	<p>Configuration</p> <pre> B1-ACC-SW1(config)#interface range GigabitEthernet0/1,GigabitEthernet0/2 B1-ACC-SW1(config-if-range)#switchport mode trunk B1-ACC-SW1(config-if-range)#switchport trunk native vlan 99 B1-ACC-SW1(config)#interface FastEthernet0/24 B1-ACC-SW1(config-if)#switchport mode B1-ACC-SW1(config-if)#switchport access vlan 50 </pre>
2	VTP
	<p>Configuration</p> <pre> B1-ACC-SW1(config)#vtp version 2 B1-ACC-SW1(config)#vtp domain DEPI B1-ACC-SW1(config)#vtp password 123 B1-ACC-SW1(config)#vtp mode client </pre>

3	<p align="center">STP & Portfast</p>
	<p>Configuration</p> <p>B1-ACC-SW1(config)#spanning-tree mode rapid-pvst B1-ACC-SW1(config)#spanning-tree portfast default B1-ACC-SW1(config)#spanning-tree portfast bpduguard default</p>
4	<p align="center">Port Security & Assign Vlan & Voice Vlan</p>
	<p>Configuration</p> <p>B1-ACC-SW1(config)#int range fastEthernet 0/1-5 B1-ACC-SW1(config-if-range)#switchport mode access B1-ACC-SW1(config-if-range)#switchport access vlan 80 B1-ACC-SW1(config-if-range)#switchport voice vlan 40 B1-ACC-SW1(config-if-range)#ip dhcp snooping limit rate 10 B1-ACC-SW1(config-if-range)#switchport port-security B1-ACC-SW1(config-if-range)#switchport port-security maximum 2 B1-ACC-SW1(config-if-range)#switchport port-security mac-address sticky B1-ACC-SW1(config-if-range)#switchport port-security violation restrict</p> <p>B1-ACC-SW1(config)#int range fastEthernet 0/6-10 B1-ACC-SW1(config-if-range)#switchport mode access B1-ACC-SW1(config-if-range)#switchport access vlan 70 B1-ACC-SW1(config-if-range)#switchport voice vlan 40 B1-ACC-SW1(config-if-range)#ip dhcp snooping limit rate 10 B1-ACC-SW1(config-if-range)#switchport port-security B1-ACC-SW1(config-if-range)#switchport port-security maximum 2 B1-ACC-SW1(config-if-range)#switchport port-security mac-address sticky B1-ACC-SW1(config-if-range)#switchport port-security violation restrict</p> <p>B1-ACC-SW1(config)#int range fastEthernet 0/11-14 B1-ACC-SW1(config-if-range)#switchport mode access B1-ACC-SW1(config-if-range)#switchport access vlan 20 B1-ACC-SW1(config-if-range)#ip dhcp snooping limit rate 10 B1-ACC-SW1(config-if-range)#switchport port-security B1-ACC-SW1(config-if-range)#switchport port-security maximum 1 B1-ACC-SW1(config-if-range)#switchport port-security mac-address sticky B1-ACC-SW1(config-if-range)#switchport port-security violation restrict</p>

	B1-ACC-SW1(config)#int range fa0/5,fa0/10 B1-ACC-SW1(config)#no switchport voice vlan B1-ACC-SW1(config-if-range)#switchport port-security maximum 1 B1-ACC-SW1(config)#int range fastEthernet 0/15-23 B1-ACC-SW1(config-if-range)#shutdown B1-ACC-SW1(config-if-range)#switchport mode access B1-ACC-SW1(config-if-range)#switchport access vlan 999
5	Interfaces IP Addresses
	Configuration B1-ACC-SW1(config-if)#int vlan 200 B1-ACC-SW1(config)#ip default-gateway 192.168.200.1 B1-ACC-SW1(config-if)#ip address 192.168.200.3 255.255.255.248
6	Sys-logs
	Configuration B1-ACC-SW1(config)#service timestamps log datetime msec B1-ACC-SW1(config)#logging 10.10.0.4
7	DHCP Snooping & Dynamic Arp Inspection
	Configuration B1-ACC-SW1(config)#ip dhcp snooping B1-ACC-SW1(config)#ip dhcp snooping vlan 15,20,30,40,50,60,70,80,90 B1-ACC-SW1(config)#ip arp inspection vlan 15,20,30,40,50,60,70,80,90 B1-ACC-SW1(config)#interface range g0/1,g0/2,f0/24 B1-ACC-SW1(config-if-range)#ip dhcp snooping trust B1-ACC-SW1(config-if-range)#ip arp inspection trust
8	Disable CDP
	Configuration

	B1-ACC-SW1(config)#int range g0/1,g0/2 B1-ACC-SW1(config-if)#no cdp enable
9	AAA
	Configuration B1-ACC-SW1(config)#enable secret level 15 depi B1-ACC-SW1(config)#username DEPI privilege 15 secret 123 B1-ACC-SW1(config)#aaa new-model B1-ACC-SW1(config)#tacacs-server host 10.10.0.4 key DEPI B1-ACC-SW1(config)#aaa authentication login default group tacacs+ local B1-ACC-SW1(config)#aaa authorization exec default group tacacs+ local B1-ACC-SW1(config)#aaa accounting exec default start-stop group tacacs+ B1-ACC-SW1(config)#ip domain-name B1-ACC-SW1.depi B1-ACC-SW1(config)#crypto key generate rsa general-keys modulus 1024 B1-ACC-SW1(config)#ip ssh version 2 B1-ACC-SW1(config)#line vty 0 2 B1-ACC-SW1(config-line)#login authentication default B1-ACC-SW1(config-line)#transport input ssh

B1-ACC-SW2

No	Description
1	Trunking & Access Interfaces

	Configuration B1-ACC-SW2(config)#interface range GigabitEthernet0/1,GigabitEthernet0/2 B1-ACC-SW2(config-if-range)#switchport mode trunk B1-ACC-SW2(config-if-range)#switchport trunk native vlan 99 B1-ACC-SW2(config)#int fa0/24 B1-ACC-SW2(config-if)#switchport mode B1-ACC-SW2(config-if)#switchport access vlan 50
2	VTP
	Configuration B1-ACC-SW2(config)#vtp version 2 B1-ACC-SW2(config)#vtp domain DEPI B1-ACC-SW2(config)#vtp password 123 B1-ACC-SW2(config)#vtp mode client
3	STP & Portfast
	Configuration B1-ACC-SW2(config)#spanning-tree mode rapid-pvst B1-ACC-SW2(config)#spanning-tree portfast default B1-ACC-SW2(config)#spanning-tree portfast bpduguard default
4	Port Security & Assign Vlan & Voice Vlan
	Configuration B1-ACC-SW2(config)#int range fa0/1-5 B1-ACC-SW2(config-if-range)#switchport mode access B1-ACC-SW2(config-if-range)#switchport access vlan 60 B1-ACC-SW2(config-if-range)#switchport voice vlan 40 B1-ACC-SW2(config-if-range)#ip dhcp snooping limit rate 10 B1-ACC-SW2(config-if-range)#switchport port-security B1-ACC-SW2(config-if-range)#switchport port-security maximum 2 B1-ACC-SW2(config-if-range)#switchport port-security mac-address sticky B1-ACC-SW2(config-if-range)#switchport port-security violation restrict

	<pre> B1-ACC-SW2(config)#interface range fa0/6-8 B1-ACC-SW2(config-if-range)#switchport mode access B1-ACC-SW2(config-if-range)#switchport access vlan 30 B1-ACC-SW2(config-if-range)#switchport voice vlan 40 B1-ACC-SW1(config-if-range)#ip dhcp snooping limit rate 10 B1-ACC-SW2(config-if-range)#switchport port-security B1-ACC-SW2(config-if-range)#switchport port-security maximum 2 B1-ACC-SW2(config-if-range)#switchport port-security mac-address sticky B1-ACC-SW2(config-if-range)#switchport port-security violation restrict B1-ACC-SW2(config)#int range fa0/1,fa0/6 B1-ACC-SW2(config-if-range)#switchport port-security maximum 1 B1-ACC-SW2(config-if)#no switchport voice vlan B1-ACC-SW2(config)#int range fastEthernet 0/9-23 B1-ACC-SW2(config-if-range)#shutdown B1-ACC-SW2(config-if-range)#switchport mode access B1-ACC-SW2(config-if-range)#switchport access vlan 999 </pre>
5	Interfaces IP Addresses
	<p>Configuration</p> <pre> B1-ACC-SW2(config)#ip default-gateway 192.168.200.1 B1-ACC-SW2(config-if)#int vlan 200 B1-ACC-SW2(config-if)#ip address 192.168.200.5 255.255.255.248 </pre>
6	Sys-logs
	<p>Configuration</p> <pre> B1-ACC-SW2(config)#service timestamps log datetime msec B1-ACC-SW2(config)#logging 10.10.0.3 </pre>
7	DHCP Snooping & Dynamic Arp Inspection
	<p>Configuration</p> <pre> B1-ACC-SW2(config)#ip dhcp snooping </pre>

	B1-ACC-SW2(config)#ip dhcp snooping vlan 15,20,30,40,50,60,70,80,90 B1-ACC-SW2(config)#ip arp inspection vlan 15,20,30,40,50,60,70,80,90 B1-ACC-SW2(config)#interface range g0/1,g0/2,f0/24 B1-ACC-SW2(config-if-range)#ip dhcp snooping trust B1-ACC-SW2(config-if-range)#ip arp inspection trust
8	Disable CDP
	Configuration B1-ACC-SW2(config)#int range g0/1,g0/2 B1-ACC-SW2(config-if)#no cdp enable
9	AAA
	Configuration B1-ACC-SW2(config)#enable secret level 15 depi B1-ACC-SW2(config)#username DEPI privilege 15 secret 123 B1-ACC-SW2(config)#aaa new-model B1-ACC-SW2(config)#tacacs-server host 10.10.0.4 key DEPI B1-ACC-SW2(config)#aaa authentication login default group tacacs+ local B1-ACC-SW2(config)#aaa authorization exec default group tacacs+ local B1-ACC-SW2(config)#aaa accounting exec default start-stop group tacacs+ B1-ACC-SW2(config)#ip domain-name B1-ACC-SW2.depi B1-ACC-SW2(config)#crypto key generate rsa general-keys modulus 1024 B1-ACC-SW2(config)#ip ssh version 2 B1-ACC-SW2(config)#line vty 0 2 B1-ACC-SW2(config-line)#login authentication default B1-ACC-SW2(config-line)#transport input ssh

B1-ACC-SW3

No	Description

1	Trunking & Access Interfaces
	Configuration B1-ACC-SW3(config)#interface GigabitEthernet0/1 B1-ACC-SW3(config-if)#switchport mode trunk B1-ACC-SW2(config-if)#switchport trunk native vlan 99 B1-ACC-SW3(config)#interface GigabitEthernet0/2 B1-ACC-SW3(config-if)#switchport mode trunk B1-ACC-SW3(config-if)#switchport trunk native vlan 99
2	VTP
	Configuration B1-ACC-SW3(config)#vtp version 2 B1-ACC-SW3(config)#vtp domain DEPI B1-ACC-SW3(config)#vtp password 123 B1-ACC-SW3(config)#vtp mode client
3	STP & Portfast
	Configuration B1-ACC-SW3(config)#spanning-tree mode rapid-pvst B1-ACC-SW3(config)#spanning-tree portfast default B1-ACC-SW3(config)#spanning-tree portfast bpduguard default
4	Port Security & Assign Vlan & Voice Vlan
	Configuration B1-ACC-SW3(config)#int range fastEthernet 0/1-2 B1-ACC-SW3(config-if-range)#switchport mode access B1-ACC-SW3(config-if-range)#switchport access vlan 90 B1-ACC-SW3(config-if-range)#switchport voice vlan 40 B1-ACC-SW3(config-if-range)#ip dhcp snooping limit rate 10 B1-ACC-SW3(config-if-range)#switchport port-security B1-ACC-SW3(config-if-range)#switchport port-security maximum 2

	<pre> B1-ACC-SW3(config-if-range)#switchport port-security mac-address sticky B1-ACC-SW3(config-if-range)#switchport port-security violation restrict B1-ACC-SW3(config)#int range fastEthernet 0/3-5 B1-ACC-SW3(config-if-range)#switchport mode access B1-ACC-SW3(config-if-range)#switchport access vlan 15 B1-ACC-SW3(config-if-range)#switchport voice vlan 40 B1-ACC-SW3(config-if-range)#ip dhcp snooping limit rate 10 B1-ACC-SW3(config-if-range)#switchport port-security B1-ACC-SW3(config-if-range)#switchport port-security maximum 2 B1-ACC-SW3(config-if-range)#switchport port-security mac-address sticky B1-ACC-SW3(config-if-range)#switchport port-security violation restrict B1-ACC-SW3(config)#int range fastEthernet 0/6-24 B1-ACC-SW3(config-if-range)#shutdown B1-ACC-SW3(config-if-range)#switchport mode access B1-ACC-SW3(config-if-range)#switchport access vlan 999 </pre>
5	Interfaces IP Addresses
	<p>Configuration</p> <pre> B1-ACC-SW3(config)#ip default-gateway 192.168.200.1 B1-ACC-SW3(config-if)#int vlan 200 B1-ACC-SW3(config-if)#ip address 192.168.200.6 255.255.255.248 </pre>
6	Sys-logs
	<p>Configuration</p> <pre> B1-ACC-SW3(config)#service timestamps log datetime msec B1-ACC-SW3(config)#logging 10.10.0.3 </pre>
7	DHCP Snooping & Dynamic Arp Inspection
	Configuration

	<pre> B1-ACC-SW3(config)#ip dhcp snooping B1-ACC-SW3(config)#ip dhcp snooping vlan 15,20,30,40,50,60,70,80,90 B1-ACC-SW3(config)#ip arp inspection vlan 15,20,30,40,50,60,70,80,90 B1-ACC-SW3(config)#interface range g0/1,g0/2 B1-ACC-SW3(config-if-range)#ip dhcp snooping trust B1-ACC-SW3(config-if-range)#ip arp inspection trust </pre>
8	Disable CDP
	<p>Configuration</p> <pre> B1-ACC-SW3(config)#int range g0/1,g0/2 B1-ACC-SW3(config-if)#no cdp enable </pre>
9	AAA
	<p>Configuration</p> <pre> B1-ACC-SW3(config)#enable secret level 15 depi B1-ACC-SW3(config)#username DEPI privilege 15 secret 123 B1-ACC-SW3(config)#aaa new-model B1-ACC-SW3(config)#tacacs-server host 10.10.0.4 key DEPI B1-ACC-SW3(config)#aaa authentication login default group tacacs+ local B1-ACC-SW3(config)#aaa authorization exec default group tacacs+ local B1-ACC-SW3(config)#aaa accounting exec default start-stop group tacacs+ B1-ACC-SW3(config)#ip domain-name B1-ACC-SW3.depi B1-ACC-SW3(config)#crypto key generate rsa general-keys modulus 1024 B1-ACC-SW3(config)#ip ssh version 2 B1-ACC-SW3(config)#line vty 0 2 B1-ACC-SW3(config-line)#login authentication default B1-ACC-SW3(config-line)#transport input ssh </pre>