A Synopsis Submitted

Cisco packet tracer project "MODERN BANK NETWORK DESIGN PART 2 HEAD BRANCH" , By : JAY JETWANI

Designed A Network Of Bank Which Connects different floors Department To Each Other Through Various Points Undertaken Like No.Of PCs , Static IP Address ,VLANs ,Subnet Masks And Gateways

OSPF MULTI AREA

Counter 1	Counter 2	Counter 3
fO/0 12.12.12.1/24	12.12.12.2/24	16.16.16.1/24
f0/1 13.13.13.1/24	16.16.16.2/24	19.19.19.1/24
f1/0 14.14.14.1/24	18.18.18.1/24	20.20.20.1/24
f1/1 -----	17.17.17.1/24	------
Area 1	Area 0	Area 2

IP DHCP POOL

f0/1 13.13.13.1/24 f1/0 14.14.14.1/24	f1/0 18.18.18.1/24 f1/1 17.17.17.1/24	f0/119.19.19.1/24 f1/0 20.20.20.1/24

Default Floating Routing

Counter 1	Counter 2	Counter 3
f0/0 20.20.20.1/24	20.20.20.2/24	192.168.43.1/24
f0/1 192.168.21.1/24	60.60.60.2/24	60.60.60.1/24
f1/0 40.40.40.1/24	192.168.42.1/24	40.40.40.2/24

IP DHCP POOL

f0/0 192.168.21.1/24	f1/0 192.168.42.1/24	192.168.43.1/24

Point-to-Point Protocol, Challenge Handshake Authentication Protocol (CHAP) ,Routing Information Protocol

Counter 1	Counter 2	Counter 3
f0/0 192.168.12.1/24	192.168.13.1/24	192.168.14.1/24
S1/0 192.168.23.1/24	192.168.23.2/24	192.168.24.2/24
S1/1 192.168.25.1/24	192.168.24.1/24	192.168.25.2/24

IP DHCP POOL

f0/0 192.168.12.1/24	192.168.13.1/24	192.168.14.1/24

Border Gateway Protocol (BGP) ,STATIC ROUTING,PORT SECURITY VIOLATION

Counter 1	Counter 2	Counter 3
f0/0 192.168.31.1/24	f0/0 192.168.31.2/24	f0/0 192.168.33.2/24
f0/1 192.168.61.1/24	f0/1 192.168.33.1/24	f0/1 192.168.63.1/24
f1/0 192.168.32.1/24	f1/0 192.168.62.1/24	f1/0 192.168.32.2/24
loopback 10.10.10.10/24	loopback 20.20.20.20/24	loopback 30.30.30.30/24

IP DHCP POOL

f0/1 192.168.61.1/24	f0/1 192.168.62.1/24	f0/1 192.168.63.1/24

Enhanced Interior Gateway Routing Protocol (EIGRP)

Counter 1	Counter 2	Counter 3
f0/0 192.168.100.1/24	f0/0 192.168.100.2/24	f0/0 192.168.100.3/24
f0/0.10 192.168.66.1/24	f0/0.10 192.168.77.1/24	f0/0.10 192.168.80.1/24
f0/0.20 192.168.67.1/24	f0/0.20 192.168.78.1/24	f0/0.20 192.168.81.1/24
f0/0.30 192.168.68.1/24	f0/0.30 192.168.79.1/24	f0/0.30 192.168.82.1/24
f0/1 192.168.101.1/24	f0/1 192.168.101.2/24	f0/1 192.168.101.3/24
f1/0 192.168.102.1/24	f1/0 192.168.102.2/24	f1/0 192.168.102.3/24

IP DHCP POOL

f0/0.10 192.168.66.1/24	f0/0.10 192.168.771/24	f0/0.10 192.168.80.1/24
f0/0.20 192.168.67.1/24	f0/0.20 192.168.78.1/24	f0/0.20 192.168.81.1/24
f0/0.30 192.168.68.1/24	f0/0.30 192.168.79.1/24	f0/0.30 192.168.82.1/24

SWITCH VIRTUAL INTERFACE ,OSPF SINGLE AREA ,MULTILAYER SWITCH CONFIRATION

Counter 1	Counter 2	Counter 3
G1/0/1 192.168.11.1/24 G1/0/2 Vlan 20 192.168.20.1/24 G1/0/3 Vlan 30 192.168.30.1/ 24 G1/0/4 Vlan 40 192.168.40.1/24 G1/0/5 192.168.12.1/24	G1/0/1 192.168.11.2/24 G1/0/2 Vlan 20 192.168.50.1/24 G1/0/3 Vlan 30 192.168.60.1/ 24 G1/0/4 Vlan 40 192.168.70.1/24 G1/0/5 192.168.13.1/24	G1/0/1 192.168.12.2/24 G1/0/2 Vlan 20 192.168.80.1/24 G1/0/3 Vlan 30 192.168.90.1/ 24 G1/0/4 Vlan 40 192.168.100.1/24 G1/0/5 192.168.13.2/24

IP DHCP POOL

G1/0/2 Vlan 20 192.168.20.1/24 G1/0/3 Vlan 30 192.168.30.1/ 24 G1/0/4 Vlan 40 192.168.40.1/24	G1/0/2 Vlan 20 192.168.50.1/24 G1/0/3 Vlan 30 192.168.60.1/ 24 G1/0/4 Vlan 40 192.168.70.1/24	G1/0/2 Vlan 20 192.168.80.1/24 G1/0/3 Vlan 30 192.168.90.1/ 24 G1/0/4 Vlan 40 192.168.100.1/24

In this networking design, there will be three main counters. The following arrangements will be there in all the three counters

1) Regional Branch

1. There will be three main cabins inside each counter and these will be interconnected.

2. It is mandatory to have a reception center in each counter and all these reception centers should be interconnected.

3. Each counter will have deposit, withdrawal, registration cabins which will be interconnected.

4. Each counter will have Regional branch manager's cabin which will be interconnected.

I have been using the following topic:-

STATIC FLOATING ROUTING

VOIP CONFIGRATION AND VOIP DIAL PEERING

ROUTER INFORMATION PROTOCOL

INTERVLAN ROUTING

VTP (VLAN TRUNKING PROTOCOL)

ROAS (ROUTER ON A STICK)

OSPF SINGLE AREA

GENERIC ROUTING ENCAPSUlATION

PORT SECURITY CONFIGRATION

2) Head Branch

This network design will have three counters which will be interconnected.

Each counter will have enquiry office which will be interconnected.

Each counter will have registration center which will be interconnected.

Each counter will have bank manager cabin which will be interconnected.

Each counter will have other service cabin which will be interconnected.

Each counter should have deposit ,withdrawal ,documentation center which will be interconnected.

Each counter will have three head offices which will be interconnected.

I have been using the following topic:-

OSPF MULTI AREA

DEFAULT FLOATING ROUTING

POINT TO POINT PPP AND Challenge Handshake Authentication Protocol (CHAP)

BORDER GATEWAY PROTOCOL

STATIC ROUTING PROTOCOL

PORT SECURITY VIOLATION

Enhanced Interior Gateway Routing Protocol

SWITCH VIRTUAL GATEWAY

OSPF SINGLE AREA

PORT SECURITY VIOLATION

3) Sub Branch Site (IPv6 ADDRESS)

1. Each counter will have three cabins which will be interconnected.

2. Each counter must have a reception center and all these reception centers should be interconnected.

3. Each counter will have deposit, withdrawal, registration cabins which will be interconnected.

4. Each counter will have Sub Branch Manager cabin which will be interconnected.

5. Each counter will have a registration centre which will be interconnected.

I have been using the following topic:-

IPv6 STATIC ROUTING

IPv6 OSPF ROUTING

IPv6 DEFAULT ROUTING

IPv6 ROUTER INFORMATION ROUTING

IPv6 Enhanced Interior Gateway Routing Protocol

PORT SECURITY VIOLATION

4) Security and Administration

1. IP will be provided to all devices from the admin server.

2. Admin servers will be interlinked with their sub admin device and SSH configuration facility will be provided in them.

3. System devices will be connected to the system server. System server and system devices resources will not be made available to other systems.

4. Main side and sub side should be interconnected.

5. With the help of wireless local area network controller, IP will be allocated to all wireless devices and security will be provided.

I have been using the following topic:-

RELAY AGENT CONFIGRATION

DHCP ASA CONFIGRATION

BASIC INSPECTION CONFIGRATION

ASA HSRP (Hot Standby Routing Protocol)

WIRELESS LAN CONTROLLER

PORT SECURITY VIOLATION