METHODS USED

1-) Access and Trunk Connections:

Access and trunk connections were established between end devices, Layer 2 (L2), Layer 3 (L3) switches, and the VoIP router.

2-) 6 VLANs and 2 VoIP Networks:

Six VLANs and two VoIP networks were integrated into the network.

3-) HSRP Configuration:

High Availability Routing Protocol (HSRP) was configured on Layer 3 switches.

4-) Routing with OSPF:

All networks were configured using the OSPF protocol.

5-) SSH:

SSH configuration was applied to Layer 3 switches and routers for security purposes.

6-) IPsec VPN:

IPsec VPN was established between firewalls.

7-) ACL Application:

ACL configurations were applied to Layer 3 switches, routers, and firewalls.

8-) Server Configurations:

DHCP, DNS, SYSLOG, NTP, EMAIL, and HTTP servers were set up and configured.

9-) NAT and ISP Configuration:

NAT implementations and redundant ISP configurations were provided.

10-) Static and Dynamic Routes:

Both static and dynamic routes were used within the network.

11-) VoIP and Dial Peer Connections:

Two separate VoIP networks were established at different locations, and Dial Peer was configured.

12-) Inter-VLAN Structuring:

Inter-VLAN routing was used to enable communication between VLANs.

13-) Internet Access:

Internet access for the network was provided.

14-) LACP (Link Aggregation Control Protocol):

LACP was used on Layer 3 switches for load balancing and high availability.