Cisco Packet Tracer

Creating VLANs on Core Switch

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| vlan 10  name Admin  vlan 20  name Medical  vlan 30  name Pharmacy  vlan 40  name IT  vlan 50  name Emergency  vlan 60  name Guests |

Enabling Inter VLAN Routing on core switch

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| --- |
| interface vlan 10  ip address 192.168.10.1 255.255.255.0  no shutdown  interface vlan 20  ip address 192.168.20.1 255.255.255.0  no shutdown  interface vlan 30  ip address 192.168.30.1 255.255.255.0  no shutdown  interface vlan 40  ip address 192.168.40.1 255.255.255.0  no shutdown  interface vlan 50  ip address 192.168.50.1 255.255.255.0  no shutdown  interface vlan 60  ip address 192.168.60.1 255.255.255.0  no shutdown |

Enable ip Routing

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| --- |
| ip routing |

Configure core switch as DHCP Server

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| ip dhcp excluded-address 192.168.10.1 192.168.10.10  ip dhcp excluded-address 192.168.20.1 192.168.20.10  ip dhcp excluded-address 192.168.30.1 192.168.30.10  ip dhcp excluded-address 192.168.40.1 192.168.40.10  ip dhcp excluded-address 192.168.50.1 192.168.50.10  ip dhcp excluded-address 192.168.60.1 192.168.60.10  ip dhcp pool Admin  network 192.168.10.0 255.255.255.0  default-router 192.168.10.1  dns-server 8.8.8.8  ip dhcp pool Medical  network 192.168.20.0 255.255.255.0  default-router 192.168.20.1  dns-server 8.8.8.8  ip dhcp pool Pharmacy  network 192.168.30.0 255.255.255.0  default-router 192.168.30.1  dns-server 8.8.8.8  ip dhcp pool IT  network 192.168.40.0 255.255.255.0  default-router 192.168.40.1  dns-server 8.8.8.8  ip dhcp pool Emergency  network 192.168.50.0 255.255.255.0  default-router 192.168.50.1  dns-server 8.8.8.8  ip dhcp pool Guests  network 192.168.60.0 255.255.255.0  default-router 192.168.60.1  dns-server 8.8.8.8 |

Adding the VLANs for OSPF Routing

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| core-switch(config)# router ospf 1  core-switch(config-router)# router-id 1.1.1.1  core-switch(config-router)# network 192.168.10.0 0.0.0.255 area 0  core-switch(config-router)# network 192.168.20.0 0.0.0.255 area 0  core-switch(config-router)# network 192.168.30.0 0.0.0.255 area 0  core-switch(config-router)# network 192.168.40.0 0.0.0.255 area 0  core-switch(config-router)# network 192.168.50.0 0.0.0.255 area 0  core-switch(config-router)# network 192.168.60.0 0.0.0.255 area 0  core-switch(config-router)# exit |

Change the ports connected to the access switches to trunk  
  
Add the vlans in each access switch and change the ports connected to trunk mode and also add vlan in each access swith  
  
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For SSL VPN

1. Add a server and change ip config to 192.168.1.10 with default gateway to 192.168.1.1
2. Add a Firewall to the core switch and add a switch connected to firewall and connect two PCs with ip addresses manually typed into 192.168.80.2 and 192.168.80.3 and default gateway 192.168.80.1
3. Connect the switch to Ethernet 0/0 of firewall and connect firewall to core switch using any other port other than Ethernet 0/0
4. Type this config in firewall

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| --- |
| En  Conf t  Int vlan 1  Ip add 192.168.1.1 255.255.255.0  No shut  Exit  Int vlan 2  Ip add 192.168.80.1 255.255.255.0  No shut  Exit |

1. Add a bookmark with the url for the server i.e. <https://192.168.1.10>
2. Type this in Firewall

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| --- |
| En  Conf t  Username user1 password 123PESU  Exit |

1. Add a new user in config-> user manager of firewall  
   take the user as user1 and choose the bookmark created earlier and add a profile name and policy name
2. Type this in firewall

|  |
| --- |
| En  Conf t  Webvpn  Enable outside  exit |

1. Skip time and take a guest PC and type in <https://192.168.80.1> and enter the username and password

Add a new server for each department and change their ip addresses to 192.168.\_\_.100 and connect them to the core switch changing the vlan of the port to the corresponding vlan