

Cisco packet tracer

Implementation Details

1. Routing Table:

There must be a routing table which will have Device Type, Interface, IP Address, Subnet Mask and Default Gateway.

Example Format:

Device	Interface	IP Address	Subnet mask	Default Gateway
Router-4	Se0/1/0	10.1.1.1	255.255.0.0	-
PC-1	fa0/0	192.168.50.50	255.255.255.0	192.168.50.1
.....
PC-3	fa0/1	DHCP	DHCP	DHCP

2. Use of any routing algorithm. Like RIP version one, RIP version two, OSPF
3. There must be 2 vlan in the overall topology.
4. Show NAT using the core Router.
5. Make any of the routers to be used as a DHCP server
6. Write all the CLI Commands for all the switch and router configuration

hotel management system all devices

1. 3 router
2. 1st floor:
 - switch
 1. Reception - computer, telephone, printer
 2. Logistic - computer , printer
 - 3. switch:
 - IP phone - room 101,102,103
 - cloud:

1. television - room 101,102,103

3. 2nd floor:

- switch

1. IT office - computer, printer

2. Admin office - computer , printer

3. switch:

- IP phone - room 301,302

- computer - room 301,302

- cloud:

1. television - room 301,302

4. 3rd floor

- switch

1. HR - computer, printer

2. Finance - computer , printer

3. switch:

- IP phone - room 201,202

- cloud:

1. television - room 201,202

Instruction

1st Floor:

1. use vlan 50 for reception

2. use vlan 60 for logistic

3. all room switch vlan 50

2nd Floor

1. DHCP
2. all room switch vlan 50

3rd Floor

1. all room switch vlan 50

ALL Network use algorithm OSPF

Configuration Demo

DHCP configuration:

```
en
conf t
hostname dhcp-server
int fa0/0
ip address 192.168.20.1 255.255.255.0
no shut
exit
int fa1/0
ip address 192.168.10.1 255.255.255.0
no shut
exit

ip dhcp excluded-address 192.168.20.1
ip dhcp excluded-address 192.168.10.1

ip dhcp pool 192.168.20.1
network 192.168.20.0 255.255.255.0
default-router 192.168.20.1
dns-server 8.8.8.8
```

```
ip dhcp pool 192.168.10.1
network 192.168.10.0 255.255.255.0
default-router 192.168.10.1
dns-server 8.8.8.8
exit
```

OSPF configuration

```
en
conf t
int fa0/0
ip address 192.168.60.1 255.255.255.240
no shut
exit
int fa3/0
ip address 192.168.40.2 255.255.255.252
no shut
exit
int fa0/0
ip address 192.168.20.2 255.255.255.252
no shut
exit
router ospf 1
network 192.168.60.0 0.0.0.15 area 1
network 192.168.40.0 0.0.0.3 area 2
network 192.168.20.0 0.0.0.3 area 3
exit
```

VLAN configuration

```
en
conf t
vlan 10
name IT
exit
```

```
vlan 20
name HQ
exit
int fa0/1
switchport access vlan 10
exit
int fa0/2
switchport access vlan 10
exit
int fa0/3
switchport access vlan 20
exit
int fa0/4
switchport access vlan 20
exit
int fa0/5
switchport mode trunk
exit
interface range fa0/1-4
switchport mode access
exit
```