CUSTOMER REQUIREMENTS

As a part of your networking project, you must design and implement the Vic Modern Hotel network. The hotel has three floors; on the first floor there are three departments (Reception, store, and Logistics), on the second floor there are three departments (Finance, HR, and Sales/Marketing), and on the third floor the IT and Admin. Therefore, the following are considerations during the design and implementation.

The company has the following requirements during implementation:

1. There should be three routers connecting each floor (all placed in the server room in the IT department).

2. All routers should be connected using serial DCE cables.

3. The network between the routers should be 10.10.10.0/30,10.10.10.4/30,10.10.10.8/30

4. Each floor is expected to have one switch (placed on the respective floor).

5. Each floor is expected to have WIFI networks connected to laptops and phones.

6. Each department is expected to have a printer.

7. Each department is expected to be in a different VLAN with the following details.

8. Use OSPF as the routing protocol to advertise routes.

9. All devices in the network are expected to obtain IP addresses dynamically with their respective router configured as the DHCP server.

10. All the devices in the network are expected to communicate with each other.

11. Configure SSH in all the routers for remote login.

12. In the IT department, add a PC called Test-PC to port fa0/1 and use it to test remote login.

VLAN CONFIGURATION

1st Floor;

Reception- VLAN 80, Network of 192.168.8.0/24

Store- VLAN 70, Network of 192.168.7.0/24

Logistics- VLAN 60, Network of 192.168.6.0/24

2nd Floor;

Finance- VLAN 50, Network of 192.168.5.0/24

HR-VLAN 40, Network of 192.168.4.0/24

Sales- VLAN 30, Network of 192.168.3.0/24

3rd Floor;

Admin- VLAN 20, Network of 192.168.2.0/2

IT- VLAN 10, Network of 192.168.1.0/24

SSH

Remote login, all routers using SSH

User name: deepaan

Password: deepaan@123

NUMBER OF NETWORK DEVICES USED

Router 2901 ➜ 3

Distribution layer switch ➜ 3

Access layer switch ➜ 3

LOGICAL VIEW