**DCN Project Proposal:**

**Hotel Network**



**Spring-22**

[**CSE-303L Data Communication and Network Lab**](https://classroom.google.com/u/2/c/MzA5OTAwMDgwMjI2)

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“On my honor, as a student of the University of Engineering and Technology, I have neither given nor received unauthorized assistance on this academic work.”

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**Introduction:**

Vic Modem Hotel network: In this project, we will be making a network for a three-floor hotel. On the 1st floor, there are three departments (Reception. Store Logistics), on the second floor there are three departments (Finance, HR, and Sales/Marketing), while the third floor hosts IT and Admin. Therefore, the following are part of the considerations during the design and implementation.

1. There should be three routers connecting each floor (all placed in the server room inIT department).
2. All routers should be connected using a serial DCE cable.
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.

**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 192.168.2.0/24
* IT-VLAN 10, Network of 192.168.1.0/24

1. All devices in the network are expected to obtain addresses dynamically with their respective router configured as the DHCP server.
2. All the devices in the network are expected to communicate with each other.
3. Configure SSH in all the routers for remote login.
4. In the IT department, add a PC called Test-PC to port fa0/1 and use it to test remote login.
5. Configure port security to IT-dept switch to allow only Test-PC to access port fa0/1

**Software used:**

* Packet Tracer.