**SCENARIO**

**About the organization:**

ACN Software Solutions is an e-commerce startup, which recently got VC funding. They earlier had only 5 employees, however, they have now shifted to a new facility and have expanded their workforce, with 4 different departments: Finance, HR, Marketing and Software development, each on 1st,2nd, 3rd and 4th floor of their facility.

**Requirements:**

The ground floor is for servicing the walk-in customers, who have access to internet through Wi-Fi, with some constraints:

1. They can access internet only on smart phones
2. They cannot access any social media sites.
3. Suggested to provide 2 computers for customers to find more information about the organization.

The company has provided the following requirements with respect to network access between departments:

1. Finance department can access data of any other department, but no department can access data of finance department.
2. HR dept. can access Marketing and Software development depts.
3. Marketing and Software development departments can communicate to each other over network and access each other’s data.

The company has the following other expectations from the network:

1. Adequate security for all of the company communications and documents (especially sensitive sales documents)
2. Fast and have additional capacity as the company grows
3. Provides for 3 9’s availability
4. Provides for long-term cost effectiveness

The company has specifically mentioned the following devices and software:

1. Printers on each floor: the company wants centralized printing on every floor
2. 2 computers in the ground floor for walk-in customers to use
3. Suite of software tools for the employees to effectively communicate. Google search, office 365, outlook for email

**Network management:**

Provide for centralized management and control of the network & devices, so that network can be maintained from remote location.

**E-commerce website:**

Provide customers with a general information Website and a secure Website where clients can buy services, and products

**Assumptions:**

1. We assume there are 2 employees in ground floor. We also assume they have one central printer.
2. The ground floor customer service dept. does not have network access to any other dept.

All communication with higher department happens through phone, for ensuring cost effectiveness.

1. Location of facility:
   1. We assume that the facility is in a location where ISPs which provide high speed WAN connections are present. This means that there will be no need to consider satellite connections to WAN.
2. Infrastructure:
   1. Every floor has separate rooms where web and data servers can be placed.
   2. Sufficient cooling apparatus, such as air conditioning, has been installed for maintaining appropriate temperatures for server room.
   3. Wiring conduits for carrying power cables and ethernet cables are built.
   4. There is sufficient power availability, with rare and small power cuts. This means that we don’t have to worry about setting up back-up electricity storage.