

**WORKING PROCEDURE OF INFORMATION TECHNOLOGY  
MANAGEMENT**

**BY**

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This Report Presented in Partial Fulfillment of the Requirements for the  
Degree of Bachelor of Science in Computer Science and Engineering

Supervised By

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**DAFFODIL INTERNATIONAL UNIVERSITY  
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## APPROVAL

This internship titled “**Working Procedure of Information Technology Management**”, submitted by **Md. Iqbal Hossain, ID: 161-15-6934** to the Department of Computer Science and Engineering, Daffodil International University, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on within 05<sup>th</sup> September.

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## DECLARATION

I hereby declare that, this internship has been done by me, **Md. Iqbal Hossain** to the department of Computer Science and Engineering, Daffodil International University. under the supervision of **Narayan Ranjan Chakraborty, Assistant Professor, Department of CSE**, Daffodil International University. I also declare that neither this internship nor any part of this internship has been submitted elsewhere for award of any degree or diploma.

**Supervised by:**



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## ACKNOWLEDGEMENT

First, I express our heartiest thanks and gratefulness to almighty Allah for His divine blessing makes me possible to complete the final year internship successfully.

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I would like to express our heartiest gratitude to **Professor Dr. Touhid Bhuiyan, Professor & Head, Department of CSE**, for his kind help to finish my internship and also to other faculty members and the staff of the CSE department of Daffodil International University.

I would like to thank our entire course mate in Daffodil International University, who took part in this discuss while completing the course work.

Finally, I must acknowledge with due respect the constant support and patients of my parents.

## **ABSTRACT**

This internship report is to pursue my Bachelor of Science degree at Daffodil International University. For this I have finished my internship over “Working Procedure of Information Technology Management” at a repeated organization called Securex Private Limited. I am still working there as a System Engineer & In-Charge of the Department of Information Technology. When I have joined Securex, I joined as a System Engineer, Information Technology. The first chapter of the internship report gives an overview of why I have done internship, what was the motivation behind it and what are the objectives. And an introduction to my organization. Then in the next part I have discussed what were my responsibilities in the organization and what service does provide my organization Securex. As it is a huge organization with a lot of employees and users, we have to maintain the IT department at its best. So that the flow continues as it should be. We have to make sure every user is satisfied with our product and service, every employee working without any obstacles. We continuously solve their problem in a daily basics. This report discusses some of my daily work. What we do to solve certain problem inside our organization. I have done the internship to develop myself in the practical world. I want to fulfill my goal after the graduation and the internship will help me to get closer to my destination.

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# CHAPTER 1

## Introduction

### 1.1 Introduction

Information technology making our world more advance and secure in every aspect of the modern life. Networking become a hot topic as the IT sector grows. As the student of B.Sc. in CSE I have already completed my internship in Securex Private Limited. I used to work there as hardware, networking and server management support. Recently I get the job as the **System Engineer & In-Charge of the Department of Information Technology** in the same company I used to do my internship. Now a day's hardware networking where for computer network, components are required not only to operate but also for configure the network. Such as telecommunication, sharing devices, router, switch, hub, cable or wireless devices etc. That's shows the importance of internship for me. In my internship I made the VPN server by myself. We have made a private network to communicate office to office with the help of VPN server. I used the concept Intranet and connected all the office by the VPN tunnel. Beside that few servers were directly monitored and maintain by me which gave me a clear understanding of maintenance process and procedure for servers.

### 1.2 Motivation

Currently I am doing my Bachelor of Science on Computer Science & Engineering from Daffodil International University. I see technical learning as an undividable sequel of the book education of the courses. It will not only benefit one to understand the topic of the book but also give an environment of the real time job. It creates a professional responsibility towards intendent job. It also teaches the way to deal with office work and authentic requirements. Beside this it boosts a student's mind towards the education as the student gain a clear view of the future need for the job. For me internship is an opportunity to know and understand of the education I am taking via books and get ready for the demands the future jobs offers. Moreover, I will able to learn about my professional duties towards the organization. I believe information technology is the biggest key for a society to step forward digital advancement.

### 1.3 Internship Objectives

My main objective on the internship was to unlock my full potential. And to find out what I am capable of and what particular job or profession suits me better. We might think we will get a job eventually, but never think if the particular job we will have after my graduation will suit me or not. I don't know what I am aiming for is good for me or not. Without going out we can't feel the weather properly, this how without a proper experience we can't choose our future. In this chase Internship will help me to take my next step without doing much wrong. Moreover, by doing task in the internship we are developing ourself day by day. We are always in touch with the outer world where we do all the task practically. It will help me to overcome my fears and help me to step forward.

### 1.4 Introduction to the Company

Securex Private Limited started journey a while ago in 1998. This organization started their business by providing Cash in-transit service in 1991. Though there are 30 more companies does this business right now, Securex was the first in this field to provide this service. The organization is now popular to all over the country. Many other organizations are our regular customer. Securex also provide hardware service like Safes, Vaults, Grills for financial organization also digital hardware service like installation and retailing CCTV, Servers, router etc. Now Securex is also developing their software to solve day to day problems inside the organization.

Table 1.1: Introduction to the Company.

Organization Name	Securex Private Limited
Office Address	House-10, Road-1, Block-B, Niketon Housing Society, Gulshan-1, Dhaka-1212.
Website	<a href="http://www.securexbd.com">www.securexbd.com</a>
Organization Type	Analog or Digital Security Service Solution

## **1.5 Report Layout**

Details of my organization Securex Private Limited. What are the product and market situation and how we are dealing with the new era of science and technology. As securex is a large company, it has been divided into several division to run it properly. The services we provide as an organization and we are working with other organizations to solve some problem. Other than that, Securex provide services to many commercial and financial organizations. Also in the SWOT analysis I have interpreted what are the strength, weakness, opportunity and threat of my organization.

The daily task and activities are included and described all the event and activities. To full the description I have added some figures too. What we do in daily basis to maintain our organization are described in the event and activities. During my internship I have taken some projects to improve the quality of the organization. Also added the challenges I used to face during this period.

As the competition is becoming harder day by day, smart plans are needed to cope with the situation. In my internship period I have gained a lot of experience and I can use the experience to prosper my career.

Technology is importing new and complex thing day by day. To cope with the new and advance technology we have to b always prepared for the upcoming future. This internship helped me to understand this term and now I am always preparing for any challenge.

## **CHAPTER 2**

### **Organization**

#### **2.1 Introduction**

Securex Private Limited started their journey by providing manned guarding service. The organization is the pioneer of this business field. Securex Private Limited was incorporated in 1988. Later on in 1991 the company started the first cash in-transit service to provide responsibility of cash movement from financial institution in armored vehicles with man guard. The scope of the Cash in-transit service got wider. Now they are providing service to most of the financial organization of Bangladesh. Not only financial but also commercial companies where they need to transfer a large amount of cash Securex provide the service. In 1993 the organization spread their business with retailing and installation of digital security equipment like in CCTV, Smart Alarm system, Access control system, physical security equipment like safes, vaults, grilles, data storage cabinet and lockers. But the Securex didn't stop there, they expand their business with the new generation with new services. As the technology is developing day by day. We are interacting with digital devices more than ever. We are dependent on them in a spontaneous way. People are depending on e-commerce site. For this reason, the security is also converting into digital security. An e-commerce site with a venerable security system can cause a lot of problem. To gain trust the security is the most important thing for an ecommerce site. So, the demand of digital security is getting bigger day by day. Securex is providing digital security to many organizations. Many big organizations are working cooperatively with Securex to improve the security.

#### **2.2 Product and Market Situation**

Securex Private Limited Providing security services since 1991. Though started with delivering cash to financial companies with man guard facilities. Now there are many services under its web. They provide enormous amount of service related to security. From man guard to Electronic security, Cash carrying service to cash vault equipment, CCTV to smart monitoring system. Securex Provide security to different Commercial organization. Though there are 30 organization who provide cash in-transit service right now, Securex was the pioneer of this service and still provide its best frequently.

### **Division of The Securex Private Limited**

- Electronic Security Service Division (ESS)
- ATM Division
- IT Division
- Sales and Marketing Division
- Cash Related Service Division (CRS)
- Operation Division
- Inspection Division
- HR and Admin Division
- Finance and Accounts Division
- Facility Management

### **The Service Securex Private Limited Provide**

#### **Man Guard Operation**

- Manned Guarding
- Verification
- VIP Protocol Service
- Central Monitoring Station
- Building Management
- Inspection
- Recruitment
- Training

#### **Cash Related Services**

- Cash Carrying Service
- ATM Cash Management Service
- Payroll Services

### **Electronic Security Equipment**

- Closed Circuit Television
- Intelligent Security Alarm Products
- Access Control System
- X Ray Scanning Machines
- Metal Detectors Archway and Hand Held Products
- Fire Protection System
- Annual Maintenance Service

### **Physical Security Equipment**

- Bank and Cash Vaults Doors and Grilles
- Safes for Commercial and Household Use
- Data Storage Cabinets
- Fire and Torch Resistant Cabinet
- Bank Modular, Regular and Electronic Lockers

### **Safety Equipment and Training**

- Safety and Fall Protection Equipment
- Training on Safety and Fall Protection

### **2.3 Target Group**

Securex Private Limited organization is one of the leading organizations for Cash in-Transit service. From 1991 to till now the organization providing manned guarding service to different Bank and other big organization or commercial sector where a large amount of cash needs to be transfer in a very secure way. The banks are Bangladesh bank, Sonali Bank Limited, Janata Bank Limited, Rupali Bank Limited, Dutch-Bangla Bank Limited, Jamuna Bank Limited etc. Some of the big commercial organization like Swapno, Agora Limited, Meena Bazar, Daily Shopping etc. Some of the hospital in Bangladesh like Square Hospital Limited, United Hospital Limited, LabAid Hospital Limited etc. Some residential hotel for example Pan Pacific Sonargaon Dhaka, Radisson Blu Water Garden Hotel Dhaka, Ruposhi Bangla, InterContinental Dhaka etc. Later on



the organization started retailing and installation of intelligent security equipment for ATM booth and other for other security purpose. Now we are providing digital security to other leading telecommunication company like Grameenphone Limited, Robi Axiata Limited, Banglalink Digital Communications Limited etc. We cooperate each other to achieve our benefits.

## **2.4 SWOT Analysis**

SWOT analysis is a way to interpret the competitive position of an organization. It is a framework to develop the current situation of any person, product or organization. It helps to reduce the further failure and increase the development process. SWOT contains four element's Strengths, Weakness, Opportunities, and Threats. By doing SWOT analysis we can make sure our strength to go with and opportunities that should never miss. It also identifies the Weakness and Risk which helps us to strengthen our weak point and reduce the risk before it becomes a big problem. With the proper analysis of these four elements an organization can easily find its best path to success.

### **Strength**

Strength is a certain thing in which an organization is better than others. By which we can distinguish one organization from another. It is an integral part of an organization so what we do unique and best is our strength. Our organization was the first security company to provide security to other organization. We have grown the trust among our user with our good services.

### **Weakness**

Weakness slows down the growth of an organization. Like strength we also need to focus on the weakness. By doing this we can improve our business to become more competitive. A loyal member can always reduce the weakness. Services should provide intime. A strong marketing team can grab more opportunities which will sooth the weakness.

## **Opportunity**

Opportunities are chances which we need to grab for future benefits. These chances are arisen from outside of the organization. We always have to keep our eye on for opportunities. Our organization used provide man power for security purpose. Now a days security is the most important thing for a commercial sector. But securities are becoming more digital day by day. For example, ATM booth should have cc cameras, offices need more automated systems than ever, digital doors, face recognition based attendance system etc. Though we are providing some of these services already but we are developing these day by day.

## **Threat**

Threats can be anything which prevent an organization from growing. We have to consider the threat first before it is too late. We can reduce future threats and make the best out of anything by analyzing the threats. Though our organization was the first security company to do the security business in our country. But not anymore, more and more organizations are arising in this field. Few international organizations are also competing us directly. So the competition is getting harder. So we need to provide good service to our user to achieve their trust.

## 2.5 Organization Structure

Table 2.1: Organization Structure.

Chairman
Managing Director
Director
Vice President
Senior Assistant Vice President
Assistant Vice President
Junior Assistant Vice President
Senior Executive (Senior Support Engineer/Senior Hardware Engineer/Senior Network Engineer/Senior System Engineer/Senior Software Engineer)
Executive (Support Engineer/Hardware Engineer/Network Engineer/System Engineer/Software Engineer)
Officer Grade-1 (Associate Support Engineer/Associate Hardware Engineer/Associate Network Engineer/Associate System Engineer/Associate Software Engineer)
Officer Grade-2 (Assistant Support Engineer/Assistant Hardware Engineer/Assistant Network Engineer/Assistant System Engineer/Assistant Software Engineer)
Office Assistant

## **CHAPTER 3**

### **Tasks, Projects and Activities**

#### **3.1 Daily Task and Activities**

- Supervision of the overall server as well as maintaining, monitoring and troubleshooting the client's services.
- Supervision of the Microsoft office 365 email services and Microsoft Outlook as well as maintaining, monitoring and troubleshooting the client's services.
- Install & Configure - Active Directory, DNS, DHCP, ATM Database Server, ATM Database Server Clients, Security Management Server, Security Management Clients, ERP Server, ERP Server Clients, VPN Server, VPN Clients, FTP Server & FTP Clients, Web Server & Web Server Clients, Print Server & Print Server Clients.
- Supervision of the overall office network as well as maintaining, monitoring and troubleshooting the client's network connection.
- Install & configure of wireless & wired network.
- Diagnosis, maintenance & troubleshooting of wireless & wired network.
- Configure Wireless Access Point, Network printer, User and Group Creation, Security and Access privileges, Remote Desktop Enable, File Server & Map Network Drive Configuration etc.
- To configure OS in workstation and configure all necessary software to work in Securex Network & Domain.
- Corporate Anti-virus auto updating over anti-virus server, Firewall and security settings, System Restore and Network Security.
- Perform network maintenance and system upgrades including service packs, patches, hot fixes and security configurations.
- Monitor performance and ensure system availability and reliability.
- Monitor system resource utilization, trending, and capacity planning.
- Select and implement security tools, policies, and procedures in conjunction with the company's security team.

- Install & configure of Router, Switch, Server Machine, Brand-PC, Laptop-PC, All in One-PC, Clone-PC, Printer, Scanner and other IT assets.
- Diagnosis, maintenance, troubleshooting & servicing of Router, Switch, Server Machine, Brand-PC, Laptop-PC, All in One-PC, Clone-PC, Printer, Scanner and other IT assets.
- Liaise with vendors and other IT personnel for problem resolution.
- Manage IT hardware asset portfolio with respect to risk, cost control, governance, compliance, and performance objectives.
- Develop and maintain company policies and processes.
- Plan and implement IT hardware asset life cycle strategy; advise Procurement and IT Operations in procurement strategies for IT hardware acquisition.
- Serve as IT hardware asset management subject matter expert.
- Optimize usage and cost of IT hardware deployments.
- Manage acquisition, deployment, utilization, tracking, security, and final disposition of IT assets.

## **3.2 Events and Activities**

### **3.2.1 Supervision of the overall server as well as maintaining, monitoring and troubleshooting the client's services.**

Our organization has an email server, when a new employee joins the company we provide a sim card, open an email account with their valid information. That information is Id, name, department, address etc. They can communicate with the organization via email. Sometimes user faces issue like they can't change the password, some user forgets their password, sometimes their email is blocked because of unauthenticated communication. Some users have limitation that they can't transit data over a certain limit. We try to fix this top issue whenever it occurs. When an employee leaves the organization, we remove them from the email server. This are the features of the email server.



Figure 3.1: DELL PowerEdge T140 Server used by email service.

There is another server called security management server. We have security employee as man guard in many places in the country. Other financial organizations hires them when they need security. Sometimes they work as project of 1 month or 3 month or one day. These employees have data which need to be preserve. Those data can be their salary, overtime duty, where they are working. This information are organize by this server. If they got promoted this information also need to input in the server.



Figure 3.2: DELL PowerEdge T130 Server used by Security Management System.

ATM server- In the whole country when an atm booth running out of money it notifies us via server. Then our cash reload team goes to the atm and refill it. Then the updated amount also gets updated in the ATM server. Sometime user face problem in booth like the machine has money but not providing money to the user. This type of errors showed up in this server that which booth is creating this error. This problem needs to be fix as fast as possible. Then a team always prepare to solve this problem and they work as area wise. There works time is 8 hours a day, they can stay at their home but in the working area. They can't leave the working area while there working time continues. If they do, we have man tracking system by which the server notifies if the employee is in the given area or not. Sometimes robber attack atm. We have alarm system which notify the booth support team.

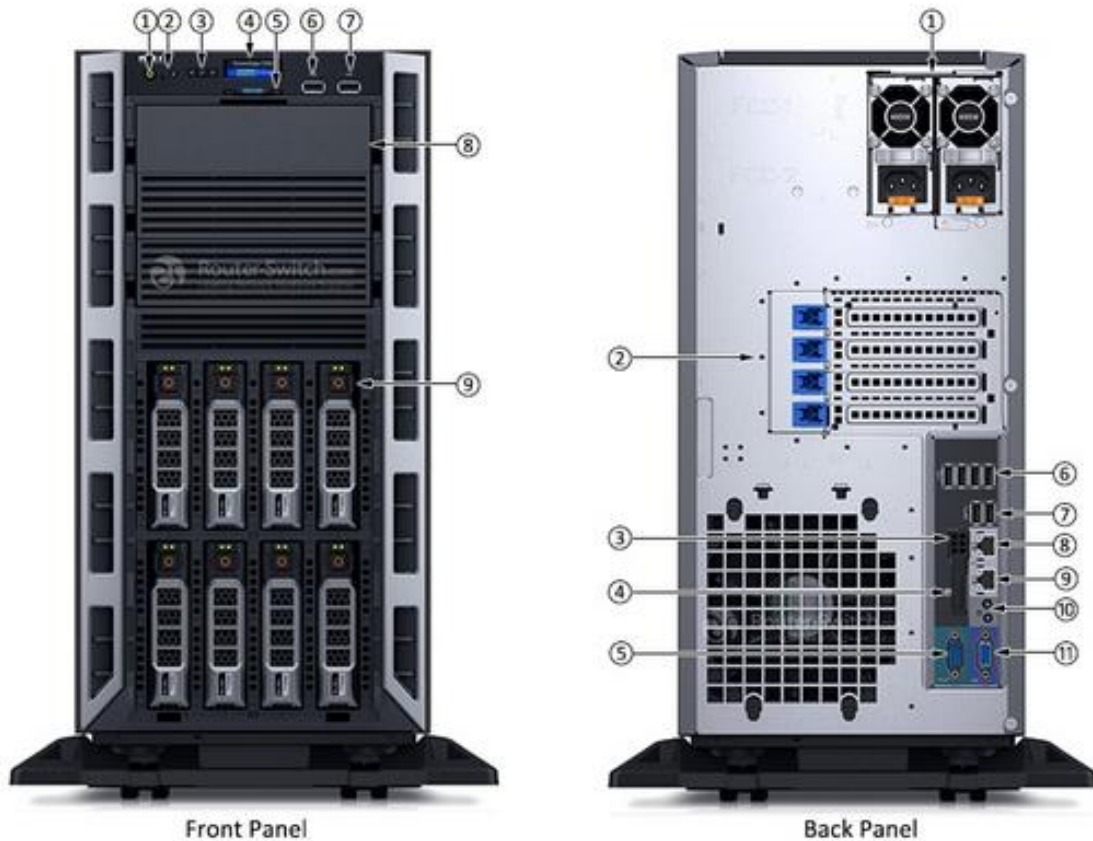


Figure 3.3: Dell PowerEdge T330 Server used by ATM Management System.

iComply server- Provide a smart monitoring system

Access Control- When an employee enters the office, they have to use the finger punch machine, we can monitor it by access control. When they need to go out they have to use it again so that the amount of time they are outside of the office we can record it. We are trying to upgrade this feature with face recognition system. As in the current situation the use of finger punch machine can lead us to a greater risk for covid-19. So, in this covid-19 situation this feature is turned off.





Figure 3.4: HPE ProLiant DL380 Gen9 Server used by iComplay service.

Tally server- Tally server is an account database server by which the account department keep track of the total amount money earned or spent. When and where we used the money all the information is preserved in this server.



Figure 3.5: Dell PowerEdge R740 Rack Server used by Tally application.

### **3.2.2 Supervision of the overall office network as well as maintaining, monitoring and troubleshooting the client's network connection.**

We have spread our network all over the country. Among them we have connected 15 area through Intranet and others connected locally. There are two internet connection shared internet connectivity and dedicated internet connectivity. If we want to monitor any connection or user, we need a dedicated internet connection. And we have done it with the help of Intranet.

### **3.2.3 Install & configure of wireless & wired network.**

We connected several office buildings with cable lines as they are closed to each other. Now a days users want CCTV without wires. To solve this, we are working with other organization like Grameenphone. We are using their sim card to get an IP. This is how we configure this wireless network. Not only CCTV but also route, switch, server, DVR etc.



Figure 3.6: Wired Network.



Figure 3.7: Wireless Network.

### 3.2.4 Configure OS in workstation and configure all necessary software to work in Securex Network & Domain.

We configure workstation, a user's personal device can't be allowed in the office. Otherwise, they can access the official data. For this reason, we have to configure a workstation according to official environment. Also need to do Net configuration and also domain configuration.

### 3.2.5 Monitor system resource utilization, trending, and capacity planning.

Resource utilization is a most important thing in an organization. Monitoring system utilization will help where to use resource and where to not. For example, all the workers might not need a good device. Some users might need a good pc to work with. So, we

have to monitor them and make the right decision where to invest and where we shouldn't.

**3.2.6 Select and implement security tools, policies, and procedures in conjunction with the company's security team.**

We use different software which are policed by other companies. Their security team define their policy and we create that policy according it.

**3.2.7 Manage IT hardware asset portfolio with respect to risk, cost control, governance, compliance, and performance objectives.**

Every company has team name IT asset. Their task is if someone joins, they give them asset and if someone leaves, they take the asset back. Those company who works according to ISO policy, ISO provide them policy and the company use this policy to their user.



Figure 3.8: IT Asset Management.

### 3.2.8 Develop and maintain company policies and processes.

When the authority tells us to change policy we have to change or develop policies.

## 3.3 Project Task and Activities

### 3.3.1 Install & Configure - Active Directory, DNS, DHCP, ATM Database Server, ATM Database Server Clients, Security Management Server, Security Management Clients, ERP Server, ERP Server Clients, VPN Server, VPN Clients, FTP Server & FTP Clients, Web Server & Web Server Clients, Print Server & Print Server Clients.

Configuring server like ATM database server, ATM database server clients, Security Management Server, Security management clients, ERP server, ERP server clients, VPN server, VPN clients, FTP server and FTP clients, web Server and web server clients, print server and print server clients. And we have to configure this manually for security purpose. So that other can't configure it or access it.

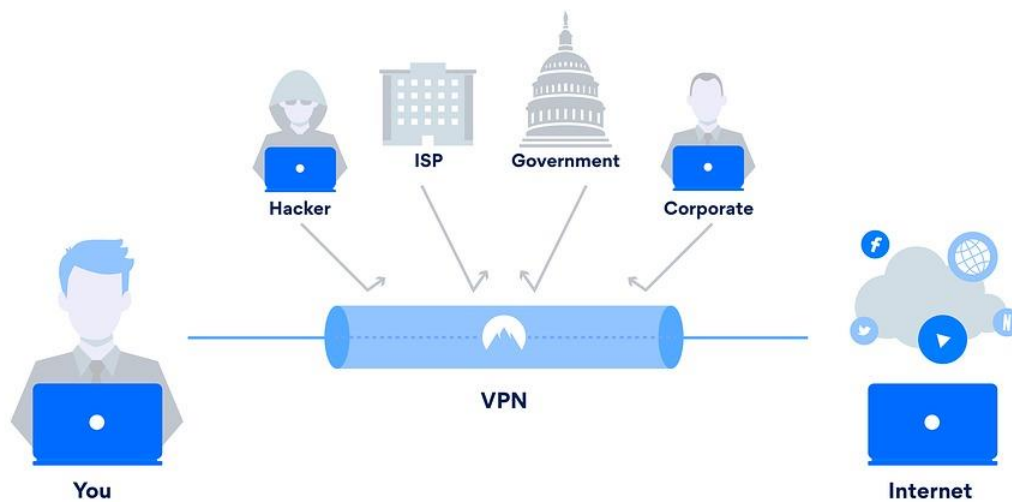


Figure 3.9: VPN Services.

ERP server- We only configure the hardware part of the ERP server and the operating system. But the application in it configured by the ERP team. They work in the backend.

VPN server- I made the VPN server by myself. Which was also purchased by me. Then I configured it in two end server and clients. We have made a private network to communicate office to office with the help of VPN server. I used the concept Intranet and connected all the office by the VPN tunnel. It has some special feature like the channel is encrypted so that no one can attack from outside. No one can decrypt. Data transit trough this channel and the data transfer speed is also faster then local channel. We can use the full potential of the backbone capacity. There are two type of VPN server User VPN and Point to point tunneling. By this we can control the user's action.

FTP server- It is a file server. There will be some central data from which we can use then whenever we need. There few software, application software, operating software. This data can be retrieved by the dedicated client only.

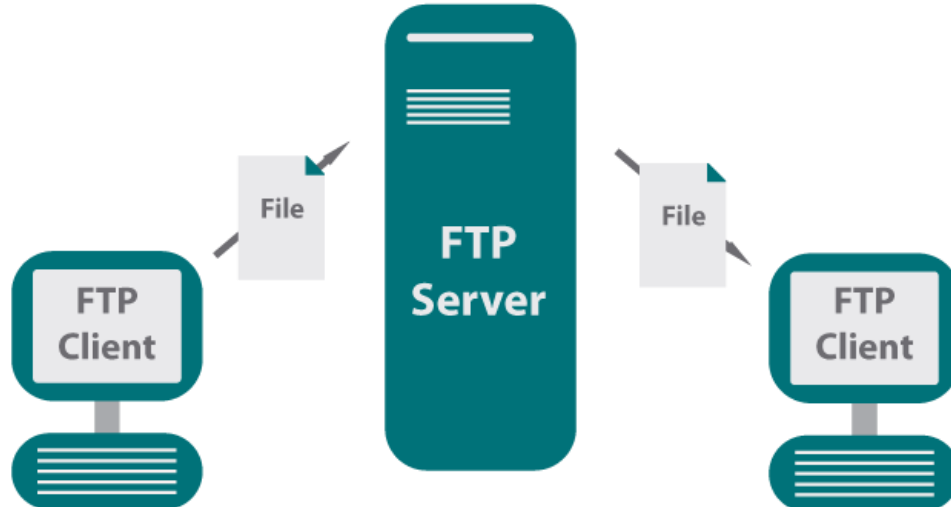


Figure 3.10: FTP Server.

Web server – A web server can be referred to hardware or software part or both of them working together we use cloud server to host our web server.

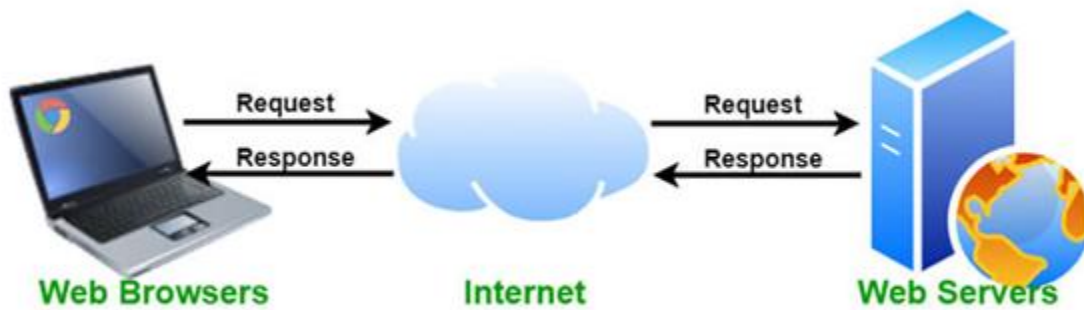


Figure 3.11: Web Server.

Print server- Every corporate office users are connected within in a domain. So, the user can't do whatever they want. Every users have some limitation. When we work under a domain there is unique Id by this id we have to login. If we want to print anything it can be official data. The server will add this information that what is printed, when and how many page is printed. By this we can keep track if anyone printing unofficial data and causing this expense. This is how we control the user. Sometimes the uses of paper in printing rises if the authority want to monitor what is the cause of this uses, they can do it. Print server client connects those printers.

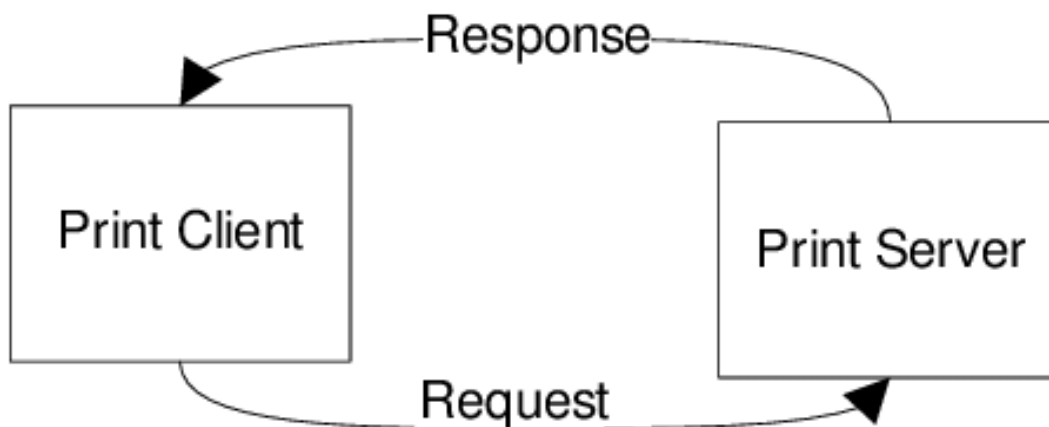


Figure 3.12: Print Server Architecture.

Active Directory- Active Directory is a data. We are connected to a domain through an ID. Within this id there will be their name, office address, department etc.

DHCP- IP is provided in 2 ways. Every device is a host. Every host communicate each other with internet protocol. And this IP is provided dynamically by DHCP.

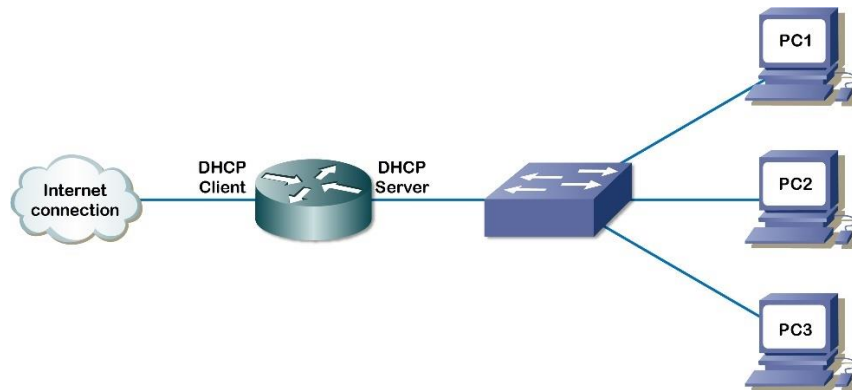


Figure 3.13: DHCP Server.

### **3.3.2 Supervision of the Microsoft office 365 email services and Microsoft Outlook as well as maintaining, monitoring and troubleshooting the client's services.**

I have to maintain Microsoft office 365 email server and Microsoft outlook. We have an email address and it can reserve up to 1TB data in which we keep our all servers and workstation's backup. We can communicate with each other under a domain by using the email service. In this way the data is saving online. We can restore a physical server.

### **3.3.3 Configure Wireless Access Point, Network printer, User and Group Creation, Security and Access privileges, Remote Desktop Enable, File Server & Map Network Drive Configuration etc.**

Wireless Access Point- The router we use in our home can be used in three modes. Router merge different network into one. So that we can communicate one network to another. Router is a communication media. As the network strength decreases one room to another that's why we need to put a router in every VIP room. And if we configure every router then there will be a lot of networks. We cannot access different network as



they are restricted. For this reason, we make it access point. There will be one router in router mode and other will be in access point. They work as switch.

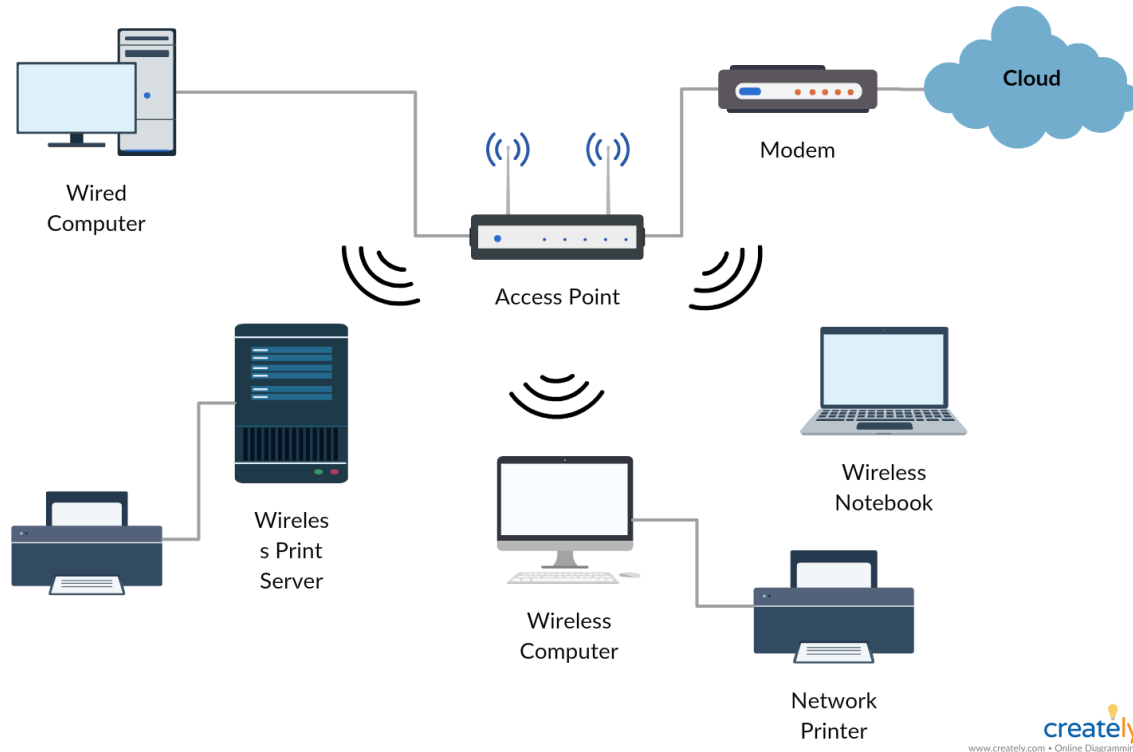


Figure 3.14: Wireless Access Point.

Network printer- There are wireless network printer and wired network printer. If we want to control the network printer with the print server, we have to connect the print server and if we don't want to monitor the user we don't need to connect to the server. We just need to connect it with a network to print.

User and Group Creation- According to users uses we have grouped the user into different group so that they can only access what they need to access. In a corporate office there is a data server and it has different group for different division. And we predefine which user will use which data.

Remote Desktop Enable- The server we use has an option called remote desktop option. If we enable it, we can access the server from outside and vice versa.

### 3.3.4 Corporate Anti-virus auto updating over anti-virus server, Firewall and security settings, System Restore and Network Security.

We have to install antivirus to different server then we need to choose the host and enable them manually. It will notify those host when it will install the software. And if the user agrees then they have to press yes and set the time later it will install it automatically in the chosen time.

Firewall and security settings- If we want that data can't be access from outside, other competitor might want to access our data and want to see what's our future plan or what we are doing. If they access this data, they it will be a risk for our organization. The firewall defends this type of attack. It is a kind of filtering system. In our office Facebook and YouTube is blocked by the firewall. We observe that many workers use Wi-Fi to spend time on Facebook or YouTube. By blocking this site, we are controlling our user.

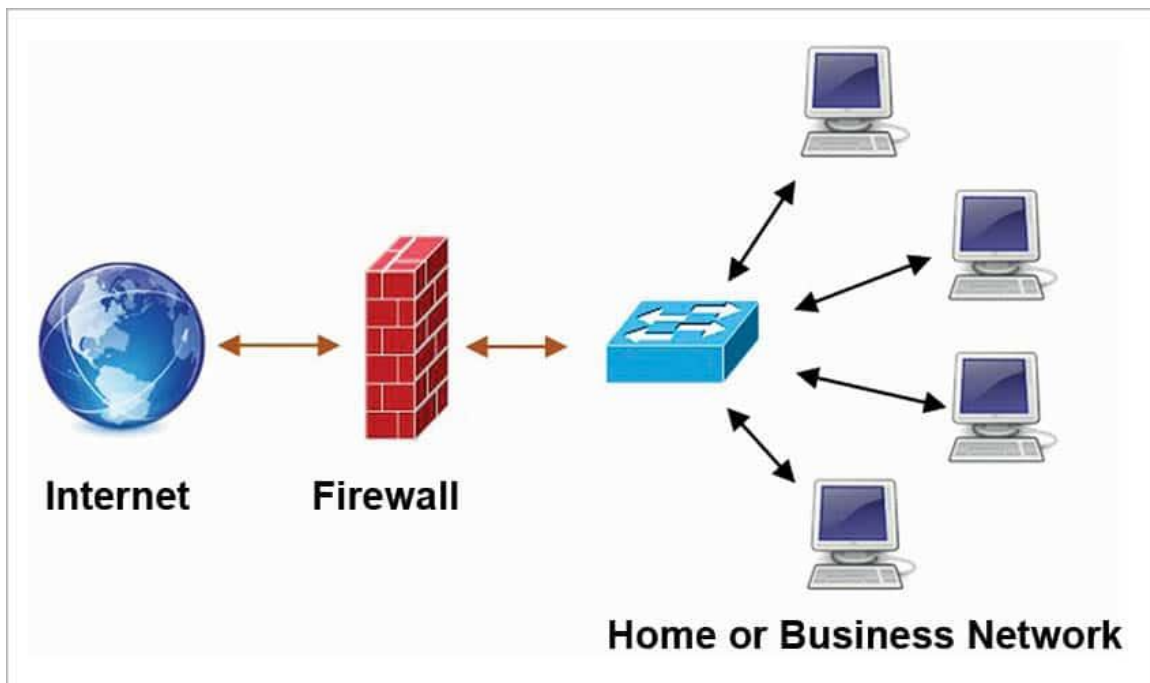


Figure 3.15: Firewall.

System Restore and Network security- When system doesn't work, we need to restore the system.

### **3.3.5 Perform network maintenance and system upgrades including service packs, patches, hot fixes and security configurations**

When we see vulnerability in our security we update and maintenance our system with patches, hotfixes and other security configurations. We don't want to notify other what we are updating otherwise it will be vulnerable again. This is why we have to update the security with patches or hotfixes.

### **3.4 Challenges**

Beginning of the journey as an interne I was task with server migration such as atm server, security server and many more. Those servers need to be updated in continuously for better and secure service for users. It was very tough challenge for me to complete the task with proper responsibility where I have to make sure in the process of server migration no user data may lost. Then comes server backup issues where in case of a server down I have to make sure an incremental backup server is always ready and it also works perfectly. There are more challenges I faced such as maintain a backup configuration for networking devices like router, switch. I have to make sure every networking device continues work without any interruption. My company deal with a lot of users and that's create a big amount of data which have to be store in a place that can be access anytime. I was task to create a cloud storage for keeping company's important data. But I have to keep it in lowest cost. I solve this challenge with the help of microsoftoffice365 email service. Beside that I have create a backup system where all the backup data for server will be load after the office hours. That means prevent server backup system from not to create any traffic in internet service in office hour. Challenges are a part of my success because the more challenges I face more solution I can make.

## CHAPTER 4

### Competencies and Smart Plan

#### 4.1 Competencies Earned

The competition in this field is becoming bigger and bigger day by day. There are lot of Networking engineers working with their best. Some of them are in their suitable place or some of them working with the hard and soul to reach their goal. There is also newcomer who are prepared to place themselves in the right place. As the world is growing so fast the new technology. The engineers have to cope with the new generation with the new idea also. The demand of new feature is rising high. To deal with this the engineers also have to be prepared for upcoming new problem to solve. Different companies seeking their best employee who can multitask and achieve extra profit for the company. Moreover, government also working for the vision 2021. They are improving the IT sector and already undertaken several projects to make it possible. So, job opportunities also increasing.

#### 4.2 Smart Plan

I am still working with organization and I have gained a lot of practical knowledge. I am improving myself day by. We face lot of new problem every day, by solving those problem I am gaining more knowledge about new thing. I have completed several projects by myself one of them was creating a VPN server, Creating a better email service for the organization. In future I want to see myself in a management post, where I will manage a whole team.

#### 4.3 Reflection

As the job market is becoming more competitive without experience, we can't apply in a good place. Internship is the way to fulfill this achievement. Because after graduation don't have much time to gain practical experience. It will be more difficult to join the industry without any preparation. I have overcome my weakness day by day and improve myself. It helps me to prepare myself for bigger opportunities.

## **CHAPTER 5**

### **Conclusion and Future Career**

#### **5.1 Discussion and Conclusion**

This is the era of modern technology where Science is more advance then two years ago. this changing is so rapid and so intense that it's hard to predict that what will be the changes after five years from now on. Rising of global and domestic demand in IT Sector created continues expositions of networking sector with Great opportunities. People are getting more connected with each other in virtually. Thus, creating more jobs in market. throughout my internship I have learned a lot of discussion and analyzing about a problem and solving the problem. Moreover, those people who were around me was friendly and helpful in every situation. I enjoyed the internship time very well.

#### **5.2 Scope for Further Career**

Everyone needs to update with the times Demand. I also want to revolutionize my career. All those knowledge gain from my academic and internship. I am able to take myself forward in networking sector. But I want to expend my knowledge beyond this sector. I want my self in the management area where I will able to command and control of all the parts in an organization.it is not an easy task to Handel. But with all my hard work and knowledge I will able to fulfill that too.

## **APPENDIX A**

### **Internship Reflection**

I have gained a lot of experience through my internship period. Which can be used in my future workplace. The rapid growth of the IT sector opened a vast amount of opportunity as well as a tide of competition. But I feel more confident than any other fresher because of my internship experience. To make myself ready for any job expectation I have to be upgraded with my skill and advanced knowledge in that field. My internship time gave me that chance to update myself. I have obtained the upper hand in making solutions to any problem I face. Now I can easily move to any job I want with the self-confidence I gained.

## **APPENDIX B**

### **Company Detail**

Securex Private Limited was founded in 1998 with the goal of cash-in-transit service. It was the first who provided this kind of service in this field. Other security services such as providing security hardware for financial organizations. Currently, this company providing digital security services for e-commerce sites. Besides that, many companies are merging with this company to upgrade client's overall security.

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