

# **NETWORK DESIGN AND SECURITY SYSTEM OF ABL**

**BY**

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

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**MAY 2018**

## **APPROVAL**

This Internship titled “**Network Design and Security System of ABL**”, submitted by **Sabbir Ahmed ID No: 142-15-3578**, 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 05-05-2018.

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## DECLARATION

This is certified that this is internship was done by me under the course Industrial Training (CSE). It has not been submitted elsewhere for the requirement of any degree or for any other purpose except for publication.

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This internship report to the **Department of Computer Science & Engineering, Daffodil International University** is submitted in partial fulfillment of the requirement for the degree of **B. Sc in CSE** under complete management of the undersigned.

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At long last, we should recognize with due regard the consistent help and patient of our parents

## ABSTRACT

This internship report is for completion of my B.Sc at Daffodil International University. For this I had an internship over “**Server Maintenance Network Design And Security**” at a reputed organization named **Agrani Bank Limited**. There I had my responsibilities like receiving equipment of sixteen core taka, designing them in rack, cabling them, software installation, AD implementation, connect the user under AD etc. where me and my group members maintain the work at branches of ABL.

In this internship report I basically tried to show that how I managed those things and how efficient I was there in the time of internship. This internship helps me to gather practical working knowledge in networking sites, increases skill of community. Moreover, I tried to present whether internship was a successful or not.

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# **CHAPTER 1**

## **INTRODUCTION**

### **1.1 Introduction**

Theoretically, a network system or correspondence framework is an accumulation of individual interchanges systems, transmission frameworks, transfer stations, tributary stations and information terminal gear (DTE) normally equipped for interconnection and interoperation to shape an incorporated framework.

Today's in the competitive world all the commercial banking industry of Bangladesh are improving their networking sector day by day. In comparison to other bank Agrani Bank Ltd. Is one of the best commercial bank in Bangladesh. Day by day agrani bank is trying to build up a strong with other organizations. At the beginning the network system was not so suitable with their branches. But today all branches are strongly connected with others. About (942) branches in online.

Agrani Bank provides mass banking services to the customers. They are trying to upgrade their network with new technologies and equipment. And very soon a strong bonding will be benefited with their strong networking system.

### **1.2 Motivation**

Internship is not only give experience but also teach a student how to communicate, how to work properly, how to maintain office. As an intern I'm proud on myself. Intern give me a vast knowledge, huge skill development in Networking site and of all how to maintain his duties properly. An internship can make a student to become a responsible. A student can take field experience by doing intern. As a result internship grow the ability

### **1.3 Objectives**

As an underdeveloped country Bangladesh is far behind from the developed country in technological development. The main two reasons may be lack of skillful people and illegal actions from our Government. But now we are live in under the flow of internet. It have a massive effect

on our IT sector, we will be able to use Internet, Software export, Call center, Tele Medicine , E-Commerce , Tele Education, Video Conferencing more vastly. By identifying these factors we can be sure about the revolutionary change over our IT sector, during our work in Agrani bank limited we achieved various experiences. To obtain wide knowledge about the Networking security of Online banking system, To learn how to install and configure the Banking software and other software, To know more about the Networking security, implementation of Active Directory.

#### **1.4 Expected Outcome**

I'm an internee. So I have some expected outcome.

1. I can increase my skill
2. Communicate with administrator.
3. Implementer of AD-DS.
4. Having basic knowledge of ABL server.
5. Having experience about networking traffic.
6. Having opportunity a job in ABL

#### **1.5 Report Layout**

In chapter 1- of the report, we introduce to our project application and discussed about its motivation objectives expected outcomes.

In chapter 2- of the report, we describe the network topology and type of networks.

In chapter 3- of the report, we discuss about the basic network devices.

In chapter 4- of the report, we give details of active devices of ABL

In chapter 5- of the report, we write work period of our internship.

In chapter 6- we discussed about conclusion and the scope for future implementation of the project base internship.

## CHAPTER 2

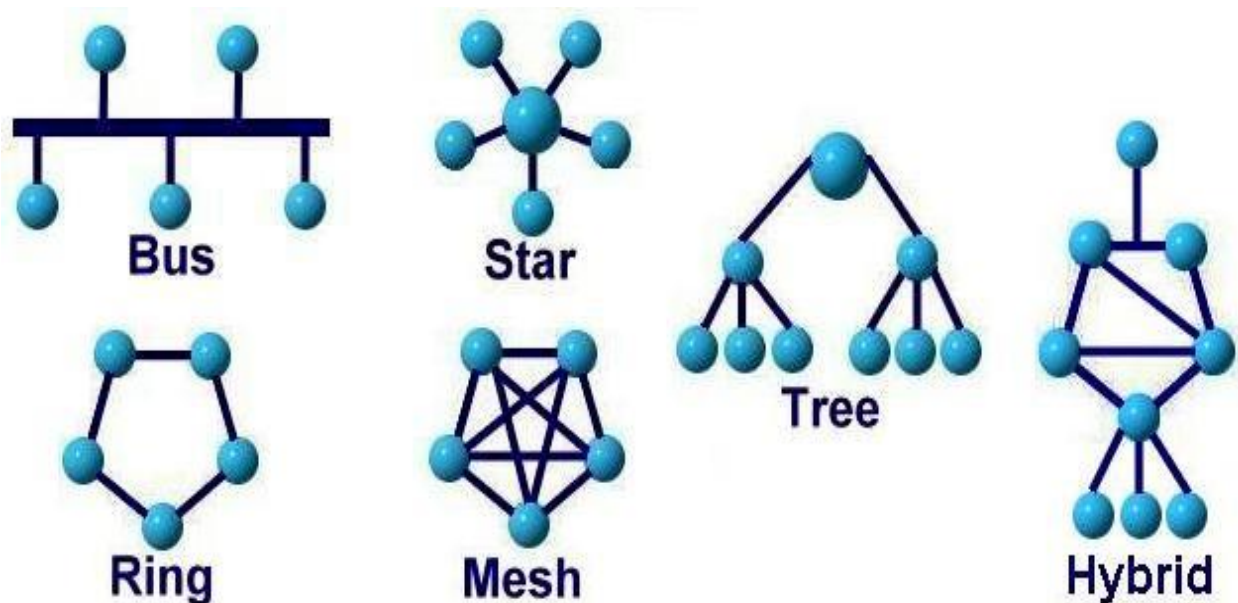
### NETWORK STRUCTURE

According to the computer networks its aimed is to allow the different systems (comprising of hardware, software, and protocols) and device to interconnect with one another, e.g; high level networking protocol standard, Customer server and Peer-to-Peer (workgroup) design.

#### 2.1 Network Topology

In correspondence organizes a topology is a more often than not portrayals depiction of the plan of a system, including its hubs and interfacing lines. There are two methods for characterizing system geometry: the physical topology and the consistent topology.

The physical topology of a topologies as described below and as shown in the design.



**Figure 2.1: Network Topology**

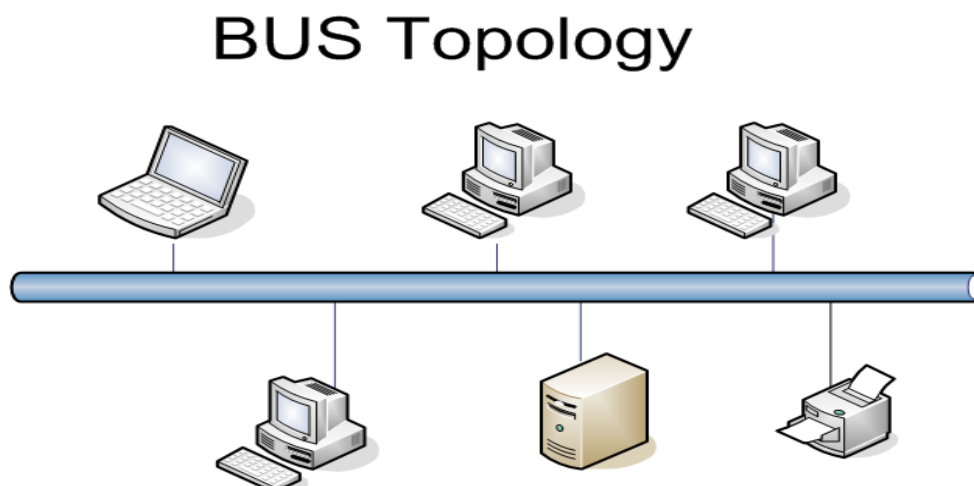
Network topologies are characterized into the following base types:

- 1 Bus Topology
- 2 Ring Topology
- 3 Star Topology
- 4 Mesh Topology
- 5 Hybrid Topology
- 6 Tree Topology

More multipart systems can be worked as half and half of at least two of the above essential topologies.

## 2.2 Bus Topology

Bus networks utilize a mutual spine to interface all gadget. A flag link, the spine capacities as a common correspondence medium that gadgets append or take advantage of with an interface connector. A gadget needing to speak with another gadget on the system sends a communicate message onto the wire that all other gadget see, yet just the proposed beneficiary really acknowledge and forms the message. In excess of a couple of dozen PCs are added to a system transport, execution challenges will probably come about. What's more, if the spine link falls flat, the whole system efficaciously ends up unusable.



**Figure: 2.2 Bus Topology**

The accompanying segments contain both the favorable circumstances and drawbacks of utilizing a bus topology with our devices.

### **Benefits of bus topology**

- 1 It's the least demanding system topology for interfacing PCs or peripherals in a straight mold.
- 2 It works well when you have a small network.

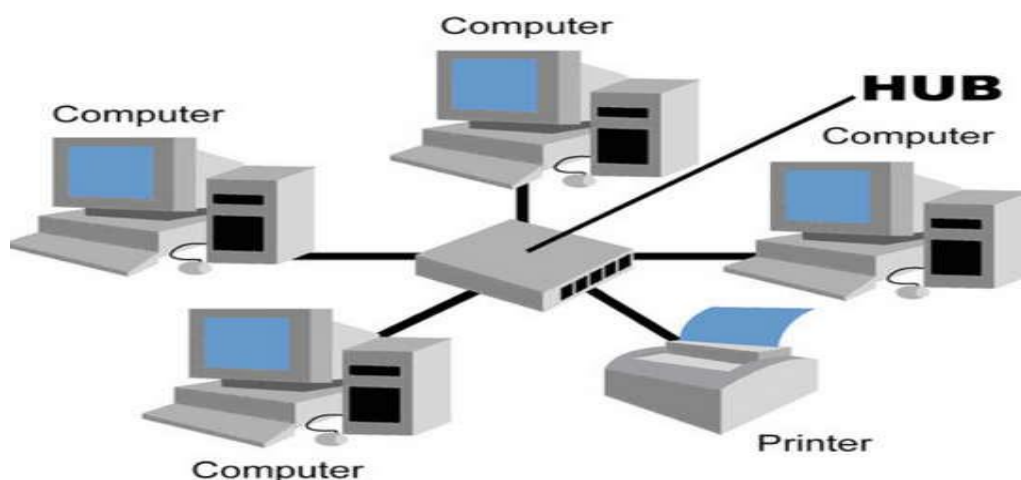
It requires less link length than a star topology.

### **Difficulties of bus topology**

- 1 It can be hard to troubleshoot separate device issues.
- 2 It can be difficult to identify the problems if the whole network goes down.
- 3 Terminators are compulsory for both ends of the main cable.
- 4 Bus topology is not great for large networks.

## **2.3 Star Topology**

On the other hand alluded to as a star organize, star topology is extraordinary compared to other normal system setups. In this design, each hub interfaces with a focal system gadget, similar to a center point, switch, or PC. The focal system gadget goes about as a server and the fringe gadgets go about as customers. Contingent upon the kind of system card utilized as a part of every PC of the star topology, a coaxial link or a RJ-45 arrange link is utilized to associate PCs sorted out.



**Figure: 2.3 star topology**

The picture to the right shows how this network setup gets its name, as it is shaped like a star.

### **Benefits of star topology**

- 1 Brought together administration of the system, using the focal PC, center point, or switch.
- 2 On the off chance that one PC on the system falls flat, whatever remains of the system bear on to work typically.
- 3 Simple to add another PC to the system.

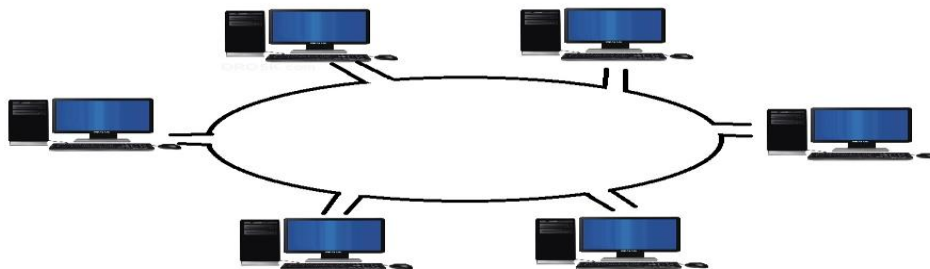
### **Difficulties of star topology**

- 1 Can have a higher cost to actualize, particularly when utilizing a switch or switch as the focal system gadget.
- 2 On the off chance that the focal PC, center, or switch comes up short, the whole system goes down and all PCs are segregated from the system.
- 3 The focal system gadget decides the introduction and number of hubs the system can deal with.

## **2.4 Ring Topology**

A ring topology stays a network arrangement in which device connections create a circular data path. Each networked device is connected to two others, like points on a circle. Together, devices in a ring topology are referred to as a ring network.

In a ring network, packets of data travel from one device to the next until they reach their destination. Most ring topologies allow packets to travel only in one direction, called a unidirectional ring network. Others permit data to move in either direction, called bidirectional.



**Figure 2.4: Ring Topology**

### **Benefits of ring topology**

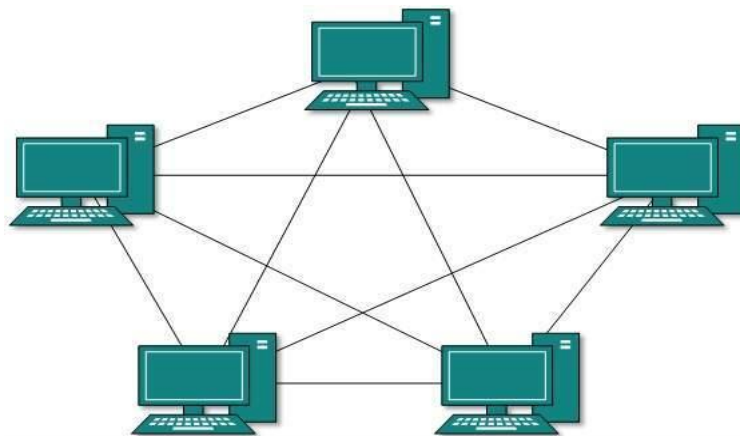
- 1 All information streams in a single bearing, diminishing the possibility of parcel impacts. Extra workstations can be included without affecting execution of the system.
- 2 A system server isn't expected to control organize availability between every workstation.
- 3 Information can exchange between workstations at awesome paces.

### **Difficulties of ring topology**

- 1 All information being exchanged over the system must go through every workstation on the system, which can make it slower than a star topology.
- 2 The equipment expected to interface every workstation to the system is more selective than Ethernet cards and centers/switches.
- 3 The whole system will be affected in the event that one workstation close down.

## **2.5 Mesh Topology**

A system setup where every PC and system gadget is sorted out with each other, taking into account most transmissions to be disseminated, regardless of whether one of the associations go down. It is a topology regularly utilized for remote systems. Under is a visual sample of a simple computer setup on a network spending a mesh topology .



**Figure 2.5 : Mesh Topology**

A work topology can be a full work topology or an incompletely associated work topology.

In a full work topology, each PC in the system has an association with every one of alternate PCs in that system. The quantity of associations in this system can be ascertained utilizing the accompanying recipe (n is the quantity of PCs in the system):  $n(n-1)/2$

In an in part associated work topology, no less than two of the PCs in the system have associations with numerous different PCs in that system. It is a sensible method to actualize excess in a system. If one of the essential PCs or associations in the system comes up short, whatever remains of the system keeps on enacting ordinarily.

### **Benefits of a mesh topology**

- 1 Can deal with high measures of movement, in light of the fact that different gadgets can transmit information at the same time.
- 2 Including extra gadgets does not disturb information transmission between different gadgets.
- 3 A disappointment of one gadget does not cause a break in the system or transmission of information.

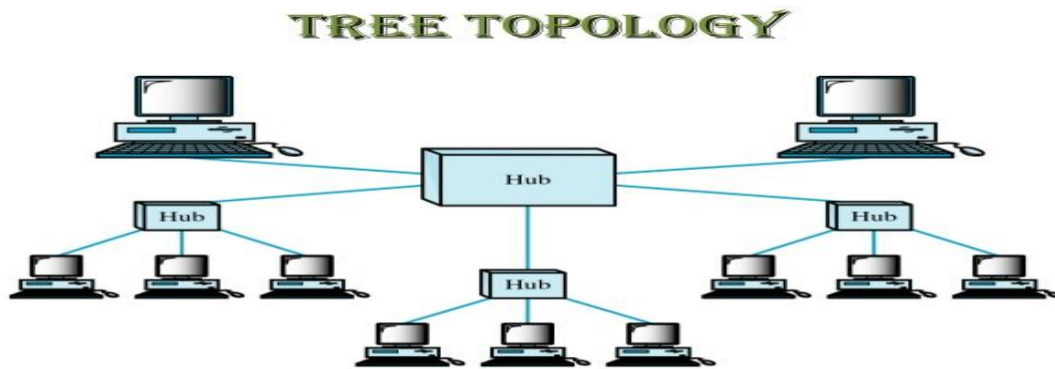
### **Difficulties of a mesh topology**

- 1 The cost to implement is higher than other network topologies, making it a less desirable option.
- 2 Building and maintaining the topology is difficult and time unbearable.
- 3 The chance of terminated connections is high, which adds to the high costs and probable for reduced efficiency.

## **2.6 Tree Topology**

A tree topology is a special type of structure in which many connected elements are arranged like the branches of a tree. For example, tree topologies are frequently used to establish the computers in a corporate network, or the information in a database.

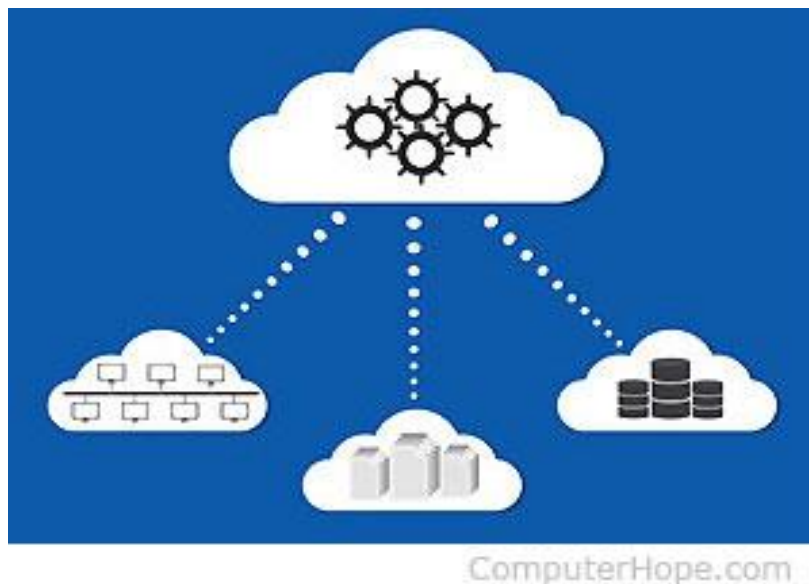
In a tree topology, there can be only one connection between any two connected nodes. Because any two nodes can have only one mutual connection, tree topologies form a natural parent-child hierarchy.



**Figure: 2.6 Tree topology**

## 2.7 Hybrid Topology

A mixture topology is a sort of system topology that utilizes at least two other system topologies, including transport topology, work topology, ring topology, star topology, and tree topology.



**Figure: 2.7 Hybrid topology**

## Types of Networks

Under is a list of the most mutual categories of computer networks in order of scale.

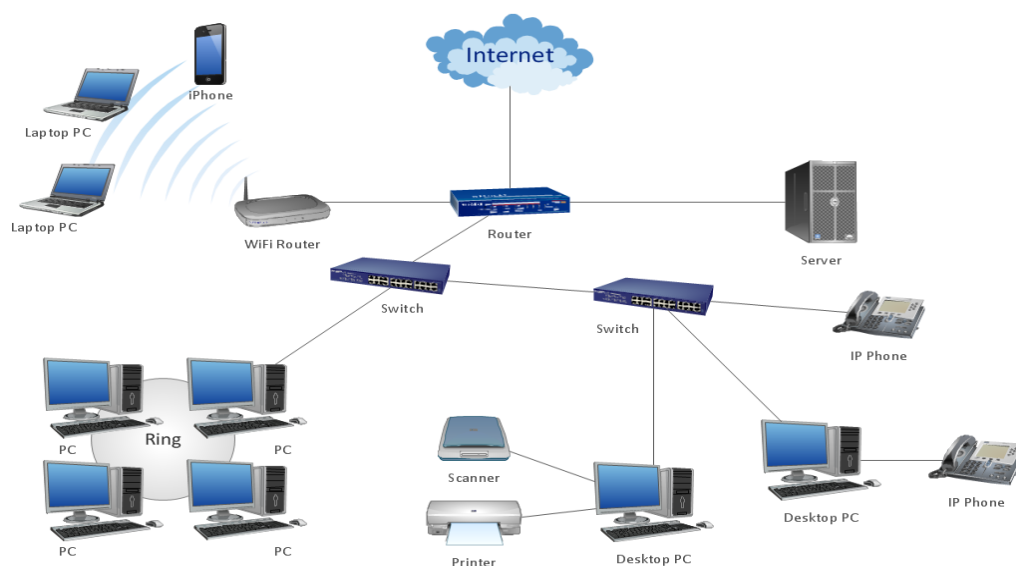
## 2.8 Personal Area Network (PAN)

An individual region system, or PAN, is a PC arrange sorted out around a different individual inside a solitary building. This could be inside a little office or house. A common PAN would incorporate at least one PCs, phones, fringe gadgets, computer game consoles and other individual excitement gadgets

On the off chance that various people utilize a similar system inside a habitation, the system is in some cases alluded to as a home territory system, or HAN. In an extremely regular setup, a habitation will have a solitary wired Internet association associated with a modem. This modem at that point gives both wired and remote associations for various gadgets. The system is ordinarily expert from a solitary PC however can be gotten to from any gadget..

This type of network delivers boundless flexibility. For sample, it permits us to:

- 1 Send a report to the printer in the workplace upstairs while you are deskbound on the sofa with your PC.
- 2 Watch motion pictures from an internet gushing support of your TV.
- 3 Transfer a photograph from your mobile phone to your personal computer.If this sounds acquainted to you, you likely have a PAN in your house without having called it by its name



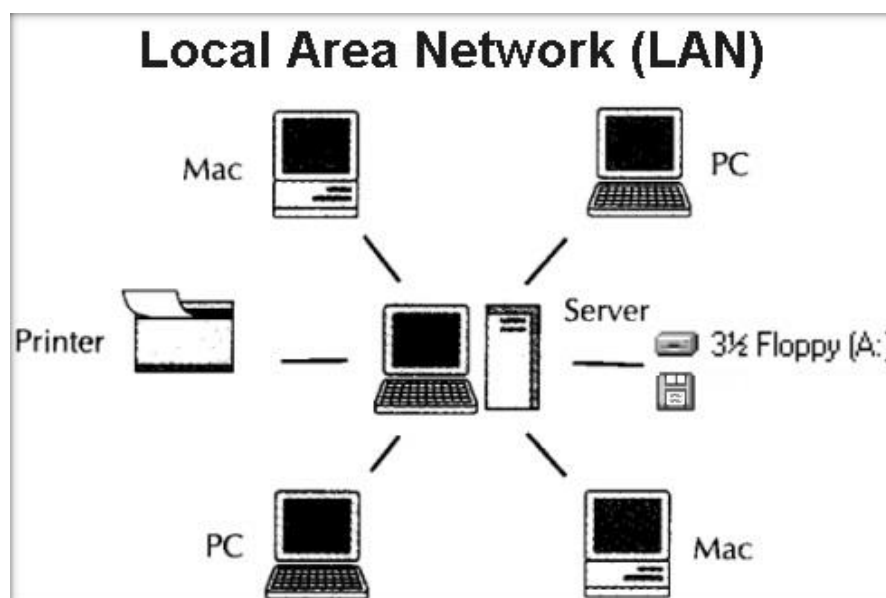
**Figure 2.8: Personal Area Network**

## 2.9 Local Area Network (LAN)

A neighborhood, or LAN, comprises of a PC arrange at a solitary site, regularly an individual office building. A LAN is exceptionally valuable for sharing assets, for example, information stockpiling and printers. LANs can be worked with moderately reasonable equipment, for example, center points, arrange connectors and Ethernet links.

The littlest LAN may just utilize two PCs, while bigger LANs can suit a huge number of PCs. A LAN regularly depends for the most part on wired associations for expanded speed and security, however remote systems can likewise be a piece of a LAN. Rapid and moderately minimal effort are the portraying qualities of LANs.

LANs are ordinarily utilized for single locales where individuals need to share assets among themselves however not with whatever remains of the outside world. Think about an office building where everyone ought to have the capacity to get to records on a fundamental server or have the capacity to print an archive to at least one focal printers. Those undertakings ought to be simple for everyone working in a similar office, however you would not need some individual simply strolling outside to have the capacity to send a record to the printer since their mobile phone! On the off chance that a neighborhood, or LAN, is completely remote, it is alluded to as a remote neighborhood, or WLAN.

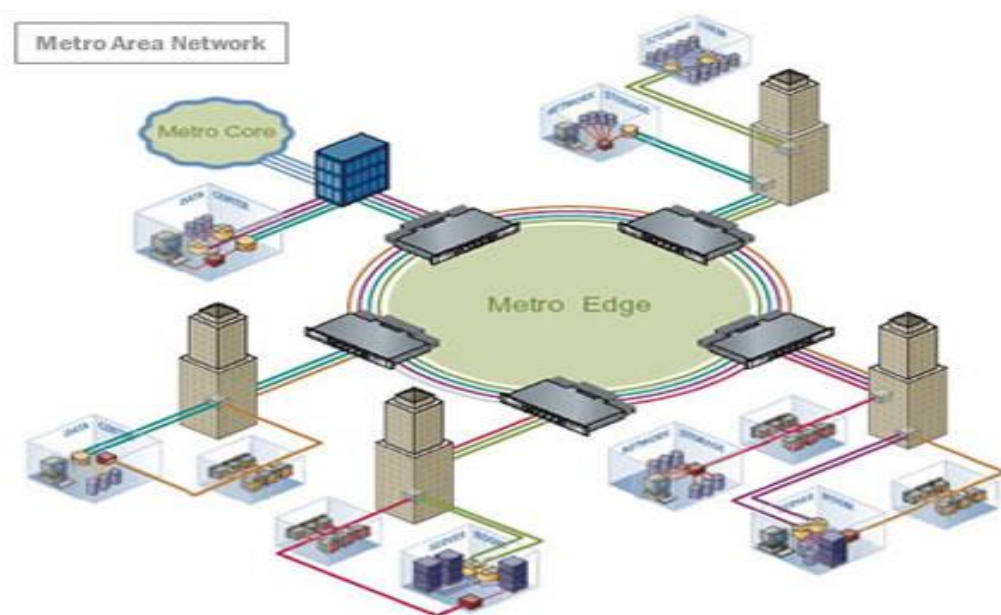


**Figure 2.9 : Local Area Network**

## 2.10 Metropolitan Area Network (MAN)

A **Metropolitan Area Network (MAN)** is a system that discusses clients with think about assets in a geographic territory or district bigger than that secured by even a vast neighborhood (LAN) yet slighter than the zone secured by a wide region arrange (WAN). The term is connected to the interconnection of system in a city into a solitary more noteworthy system. It is additionally used to mean the interconnection of a few neighborhood by connecting them with spine lines. The last use is additionally now and again meant to as a grounds arrange.

Cases of metropolitan territory systems of different sizes can be found in the metropolitan territories of London, England; Lodz, Poland ; and Geneva, Switzerland. Expansive colleges likewise infrequently utilize term to depict their systems. A current pattern is the establishment of remote MANs.



**Figure 2.10: Metropolitan Area Network**

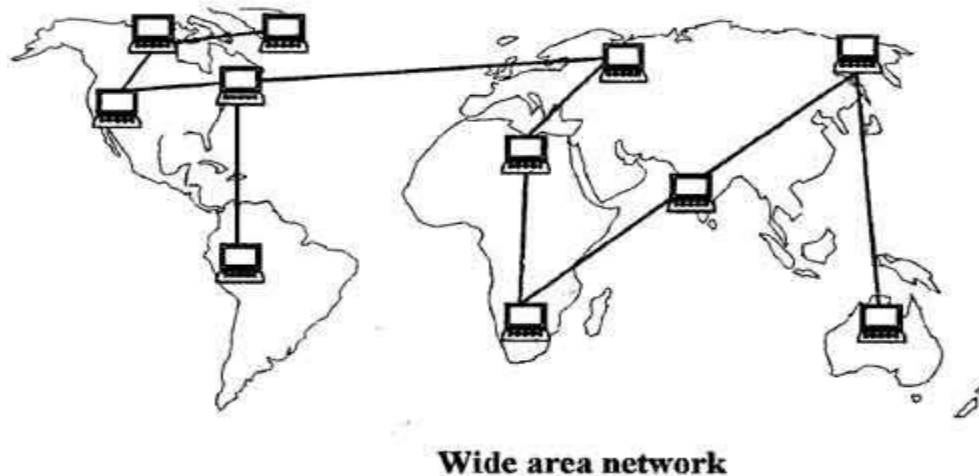
## 2.11 Wide Area Network (WAN)

A **Wide Area Network (WAN)** is a PC organize covering numerous separation zones, witch may spread crossways the whole world. WANs frequently interface numerous lesser systems, for example, neighborhood (LAN) or metro territory systems (MANs). The world most well known WAN is the web. A few fragments of the Internet are likewise WANs in themselves. The key contrast amongst WAN and LAN innovation is the adaptability.

An arrangement of switch and switches are interconnection to shape a Wide Area Network. The switch can be associated in different topologies, for example, full work and half work.

Both parcel exchanging and circuit exchanging advancements are utilized as a part of the WAN. Bundle changing enables clients to share basic bearer assets with the goal that the transporter can make more productive utilization of its foundation.

Circuit Switching enables information associations with be perceived when required and after that ended when correspondence is finished. This works like a typical phone line works for voice correspondence. Joined administrations Digital Networks is a decent case of circuit exchanging.



**Figure 2.11: Wide Area Network**

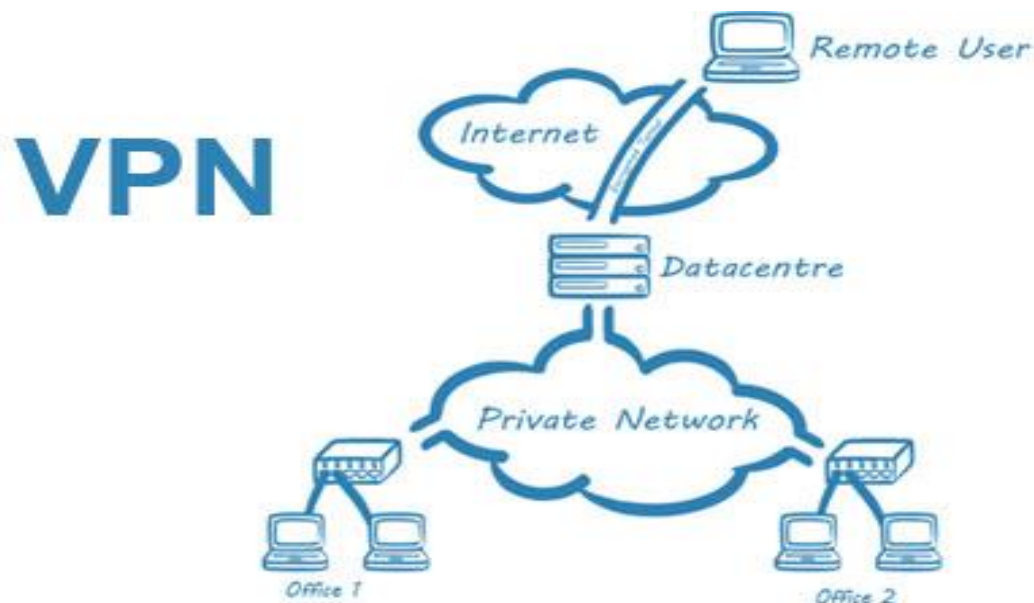
## 2.12 Virtual Private Network (VPN)

A Virtual Private Network uses open broadcast communications systems to conduct private information correspondences. Most VPN usage utilize the Internet as the general population framework and an assortment of ingested conventions to bolsters private correspondence through the web.

VPN takes after a customer and server approach. VPN Client validate clients, encode information, and generally oversee sessions with VPN servers building up a method called burrowing.

The fundamental advantage of a VPN is the lower cost expected to help this innovation contrasted with choices like customary contracted lines or remote access servers.

Numerous Vendors have set up VPN equipment and programming items. A portion of these don't interoperate because of the youthfulness of certain VPN measures.



**Figure 2.12 : Virtual Area Network**

## **CHAPTER 3**

### **BASIC NETWORKING DEVICES**

All systems are comprised of essential equipment building pieces to interconnect organize hubs, for example, Network Interface Cards (NICs), Bridges, Hubs, Switches, and Routers. PC organizing gadgets it is imperative to be announced the way that they allude to segments which can be seen and touched inside our PC. Thusly, it is essential for PC clients to have the capacity to recognize the equipment segments included inside their PCs and to have the capacity to pick up something about their fundamental capacities.

#### **3.1 Network Interface Card (NIC)**

A Network Interface Card (NIC) is a gadget that enables PCs to be joined made in a system, regularly a Local Area Network (LAN). The arranged PCs interconnect with each other utilizing a specific convention or settled upon dialect for transmitting information bundles among the distinctive machines or "hubs." The system interface card goes about as a mediator, enabling the machine to both send and get information on a LAN. It gives physical access to a systems administration medium and frequently gives a low-level tending to framework using MAC addresses.

#### **3.2 Repeater**

A repeater is a gadget that recover approaching electrical, remote or optical signs. With physical media like Ethernet or Wi-Fi, information transmissions can traverse just incomplete separation before the nature of the flag corrupts. Repeaters endeavor to protect flag honesty and broaden the separation over which information can securely travel. Genuine system gadgets that work as repeaters for the most part have some other name. Dynamic center points for instance are repeaters. Dynamic center points are at times additionally called "multiport repeaters," however more generally they are simply "centers." Other kinds of "aloof centers" are not repeaters. In Wi-Fi, get to focuses work as repeaters just when working in supposed "repeater mode." Higher-level gadgets in the OSI show like switches and switches for the most part don't affiliation the elements of a repeater. All repeaters are in fact OSI physical layer gadgets.

### 3.3 Hubs

A typical association point for gadgets in arrange. Centers are regularly used to associate sections of a LAN. A center contains numerous ports. At the point when a bundle touches base at one port, it is duplicated to alternate ports so all sections of the LAN can see all parcels. A uninvolved center suppliers just as a channel for the information, empowering it to go from one gadget (or fragment) to another. Alleged smart center points incorporate extra highlights that empowers an overseer to screen the movement going through the center point and to arrange each port in the center point. Scholarly center points are additionally called controllable centers. A third kind of center point, called an exchanging center, really peruses the endpoint address of every bundle and afterward advances the parcel to the right port. Systems administration center points are focal parts of neighborhood (LANs). To value the part of systems administration centers, an essential comprehension of LANs is required.

### 3.4 Bridges

Extension is named as a system gadget which is useful in cleaning the information heap of the activity by isolating it into fragments or bundles. They are utilized to bring down the heap of activity on the LAN and different systems. At the point when different system fragments are set up at the information interface layer of the OSI demonstrate, we allude to it as scaffold. Standing when the parcels of information are moved along a system, without finding the system tends to this procedure is named as spanning. Scaffolds are detached gadgets in light of the fact that there is no association amongst crossed over and the ways of spanning.

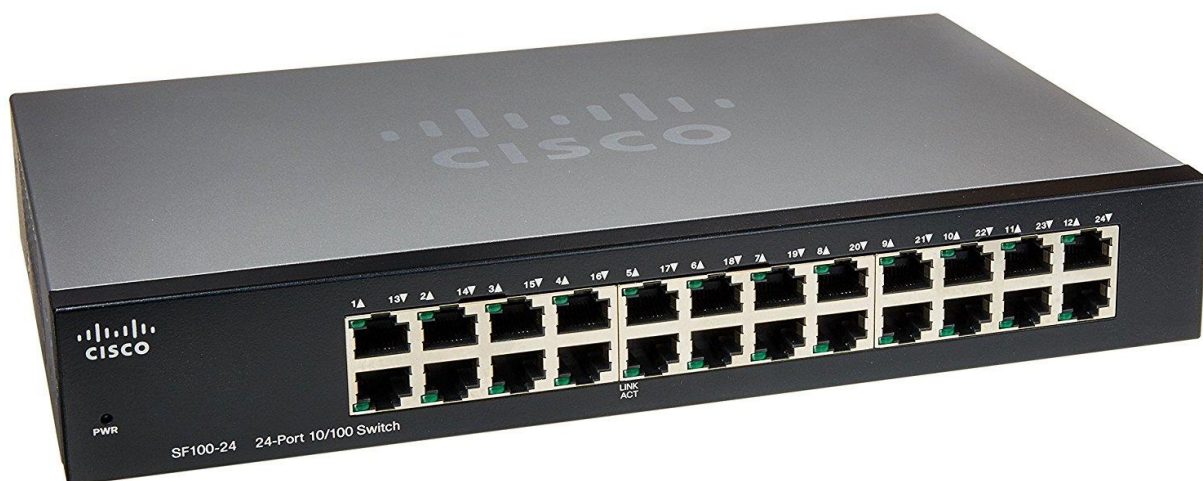
Extensions work at the information connect (Layer 2) of the OSI display. It associates two LAN created. Scaffolds are embedded into the system to keep activity contained inside the fragments to enhance execution. By observing which station perceived receipt of the address, spans realize which cathodes have a place with the portion and save their own address tables. Multiport spans have in excess of two ports and execute an exchanging capacity like a LAN switch. Extensions investigate approaching movement and choose whether to forward or dispose of it.

### 3.5 Switches

A switch is a gadget that channels approaching information from any or numerous info ports to the particular yield port that will take the information while in transit to its expected goal. In the customary circuit-exchanged phone network, at least one changes are utilized to set up a devoted however transitory development or circuit for a trade between at least two gatherings. On an Ethernet neighborhood (LAN), a change decides from the physical gadget (Media Access Control or MAC) address in every approaching message outline which yield port to forward it to and out of. In a wide zone bundle exchanged system, for example, the Internet. A change characterizes from the IP address in every bundle which yield port to use for the following piece of its trek to the proposed goal.

Switch is an advertising term that envelops switches and connects, and in addition gadgets that may convey activity on stack or by application content (e.g.: a Web URL identifier. In the Open Systems Interconnection (OSI) correspondences demonstrate, a switch executes the Layer 2 or Data-connect layer work. That is, it just takes a gander at every bundle or information unit and decides from a physical address (the "Macintosh address") which gadget an information unit is planned for and changes it out while in transit to that gadget.

Ethernet executions of system switches are the most widely recognized. Standard Ethernet organize switches bolster either 10/100Mbps Fast Ethernet or Gigabit Ethernet (10/100/1000) principles. Diverse models of system switches bolster distinctive quantities of associated gadgets..



**Figure 3.5: Switch**

### 3.6 Routers

Switches are little physical gadgets that combine various systems. Routers are small physical devices that join multiple networks together. In fact switch is a Layer 3 entryway gadget, sense that it interfaces at least two systems and that the switch works at the system layer of the OSI display. router is a Layer 3 gateway device

Home systems ordinarily utilize a remote or wired Internet Protocol (IP) switch, IP being the most widely recognized OSI arrange layer convention. An IP switch, for example, a DSL or link modem broadband switch joints the home's neighborhood (LAN) to the wide-territory arrange (WAN) of the Internet.



**Figure 3.6: Router**

### 3.7 Cable

#### **Straight Through Cable**

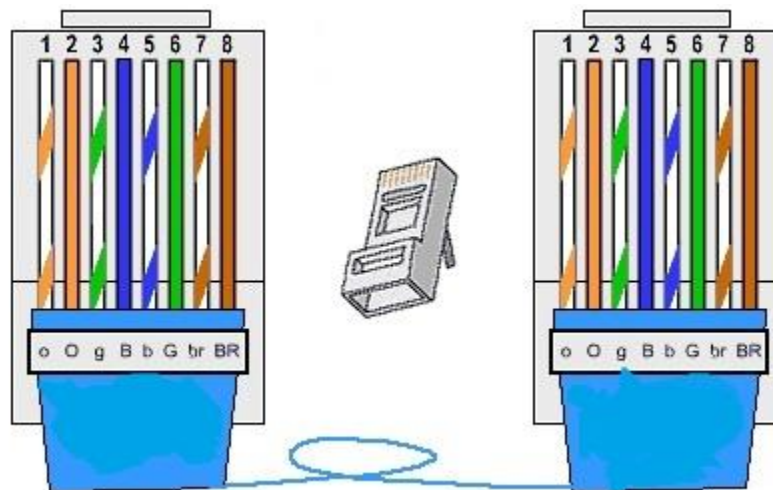
Straight through link is a Common Ethernet arrange link. This Ethernet arrange link is made of 4 sets superior link that comprises turned match conductors that reused for information transmission. Both end of link is called RJ45 connector. Straight through link canister be Cat3, Cat 5, Cat 5e or Cat 6 UTP link, the main contrast is each write will have diverse wire arranging in the link for

filling distinctive needs. Feline 5 UTP link can bolster 10/100 Mbps Ethernet organize, while Cat 5e and Cat 6 UTP link would maintenance be able to Ethernet arrange running at 10/100/1000 Mbps. Feline 3 UTP link, it's not prevalent any longer since it can just help 10 Mbps Ethernet arrange.

Straight through cable characteristically usage to connect different category of devices :

1. Interface a PC to a switch center point's standard port.
2. Associate a PC to a link/DSL modem's LAN port. Associate a switch's WAN port to a link DSL modem's LAN port. Associate a switch's LAN port to a switch center point's uplink port.
3. (Ordinarily utilized for expanding network) Connect 2 switches/centers with one of the switch/center utilizing an uplink port and the one utilizing standard port.

In straight through cable both side (side A and side B) of cable have wire procedure with same color



**Figure 3.7: Straight through cable**

## **Cross Through Cable**

Cross through link is called Common Ethernet arrange link This Ethernet organize link is done of 4 sets superior link that comprises contorted combine conductors that utilized for information transmission. Both end of link is called RJ45 connector. The link can be described as Cat 5, Cat 5e, Cat 6 UTP link, Cat 5 link can bolster 10100 Mbps Ethernet arrange, though Cat 5e and Cat 6 UTP link can bolster Ethernet organize continuously at 10/100/1000 Mbps.

Cross however link normally used to associate same kind of gadgets. A cross idea link can be Used to:

1. Interface 2 PCs straight.
2. Interface a switch's LAN port to a switch/center point's (ordinary utilized for Extending 2 switch/center point's by utilizing ordinary port in both switch/center points.

Both (side An and B) of link have wire association with following changed shading.

## **CHAPTER 4**

### **ABL NETWORK ACTIVE DEVICE DIAGRAM**

#### **4.1 Agrani Bank Service Providers**

- 1 Metronet
- 2 Link-3
- 3 Bangla-phone
- 4 BDCOM
- 5 ADN
- 6 Drik ICT
- 7 Telnet

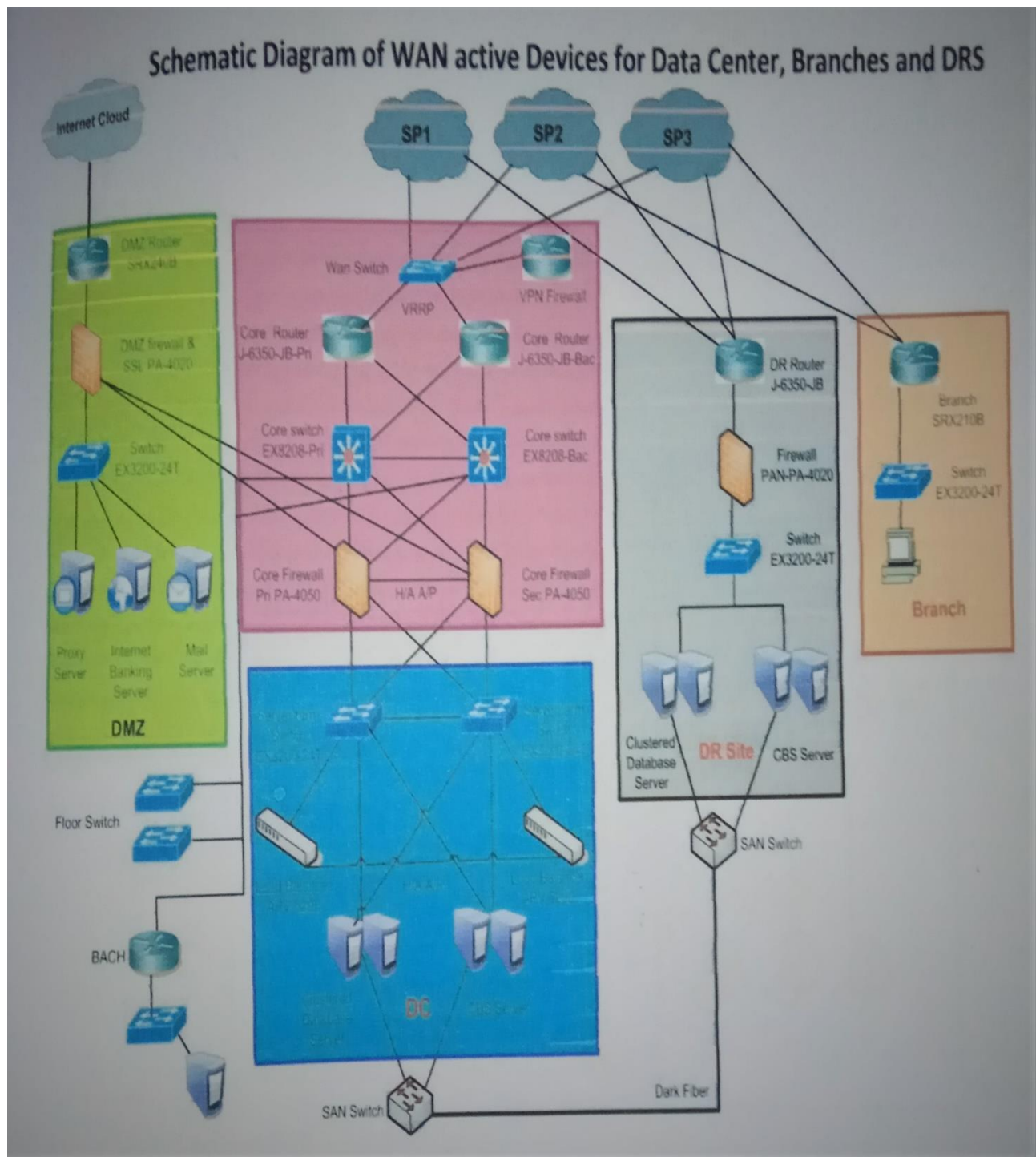
#### **4.2 Running Networking System of ABL**

The current networking system of Agrani Bank Ltd is decentralized. That means every branch has separate servers. All the branches are interconnected to each other through by a third party organization which called vendors. Head office has a backup server to preserve and store every month ended data for all branch.

Branches sent data to Head office through SP (Service provider where SP are connected with WAN switches. Actually all the branches are mostly connected with Head office finished Data Center (DO) core router.

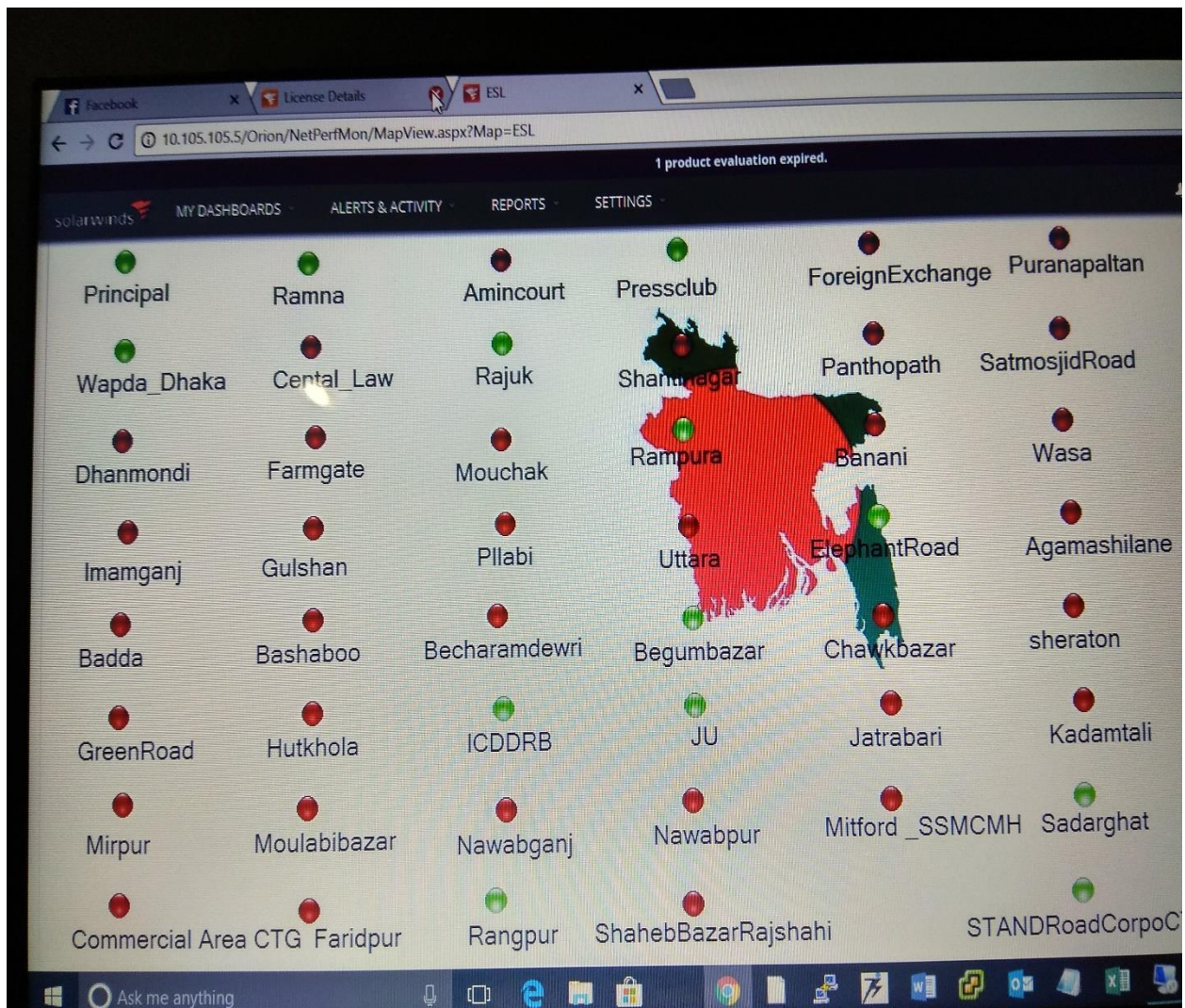
DMZ, Local LAN are the internet site and DC (Data enter is connected with SAN Storage Area Network and DR (Disaster Recovery) site. Where all the data are restrict store here. The DC site is connected through SAN switch with DR site. SAN switch are act as a backup link for DR. If any kind of occurrence happened in DC then DR create backup for DC

The branches also interconnect to each other by land phone if there is any problem in one branch, then they can get help from the head office either by telephone solution or by their necessary vendors.



**Figure 4.2: Running ABL Network Active Device Diagram**

### 4.3 IP Switch of Branches



**Figure 4.3: IP Switch of all Branches**

#### 4.4 Network Operation Center



**Figure 4.4. : Network Operation Center**

#### 4.5 Function of network monitoring center

- 1 Observed all the network system of all branches of ABL
- 2 Solved the network problem if any failure occurred in any branches or head office.
- 3 Contact and solved the network problems if it happened by vendors.
- 4 Configure all the networking devices.
- 5 Solved the problem of the networking software and hardware

## CHAPTER 5

### BANKING SOFTWARE AND PROJECT WORK

Agrani Bank Used Temenos (T24) Software for Banking Transaction.



**Figure 5.1: Interface of software**

Here we see the TSA status information. By Temenos the transaction is happening.

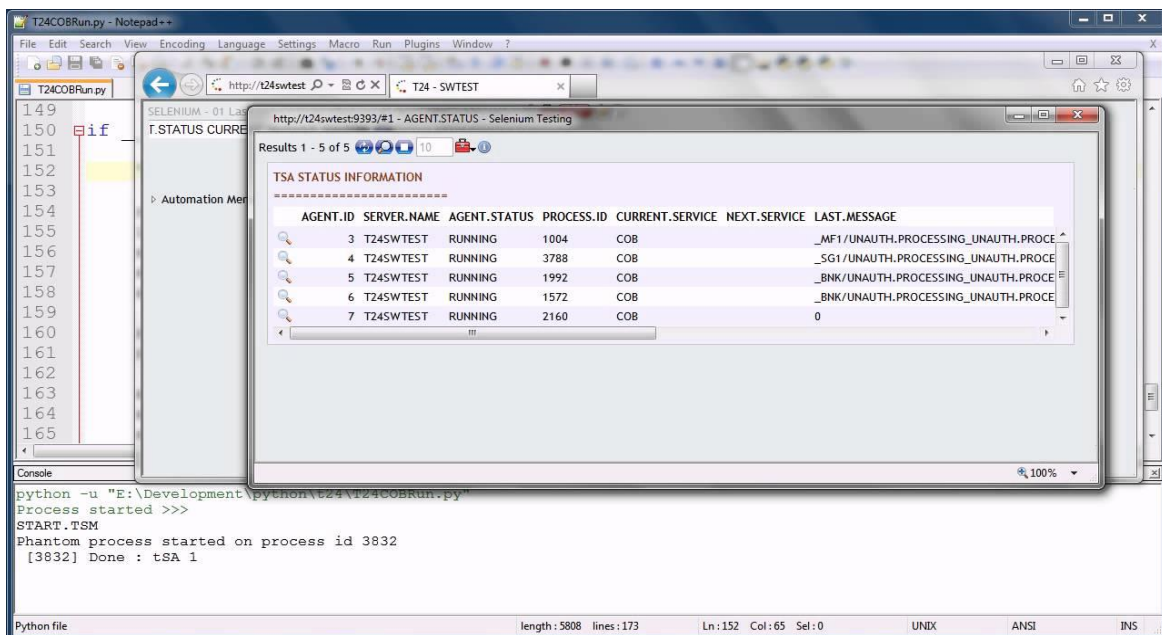


Figure 5.2: Interface of software

It is T24 browser parameter files. By windows explorer we can use temenos software and transaction quickly.

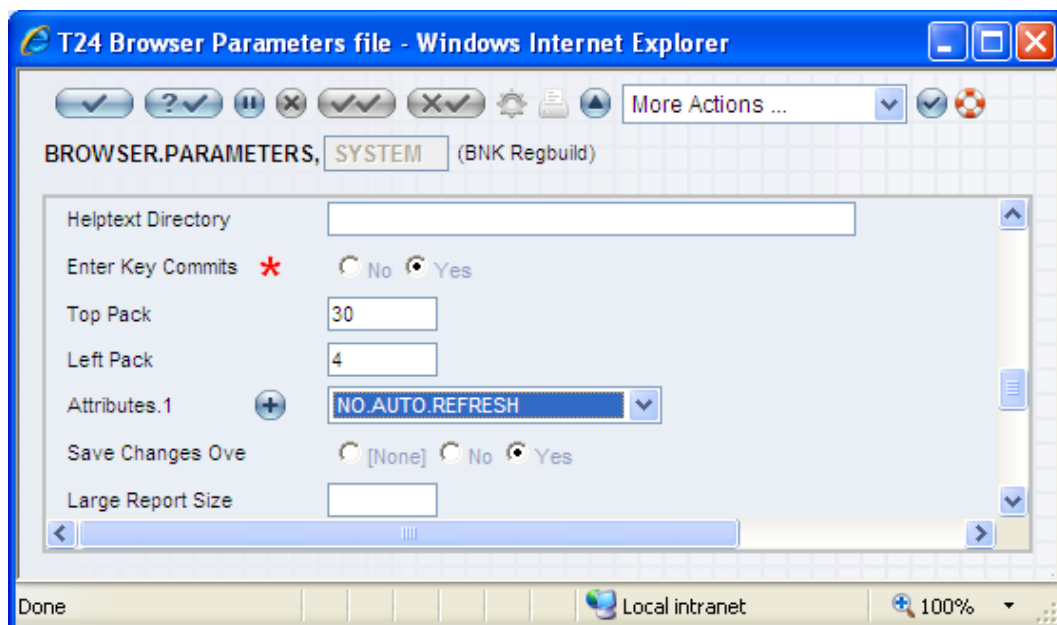


Figure 5.3: Interface of software

When a customer want a loan then he has to fulfill this form.

| <b>AGRANI BANK</b>                           |       | No. _____                                              |       |
|----------------------------------------------|-------|--------------------------------------------------------|-------|
| <b>LOAN TRANSACTION SHEET</b>                |       |                                                        |       |
| <b>Name of Customer :</b> _____              |       | <b>Borrower Code :</b> _____                           |       |
| <b>Type of transaction</b>                   |       |                                                        |       |
| <input type="checkbox"/> <b>Disbursement</b> |       | <input type="checkbox"/> <b>Application of Payment</b> |       |
| <b>Particulars:</b>                          |       | <b>Particulars:</b>                                    |       |
| 1) PN #                                      | _____ | 1) Date                                                | _____ |
| 2) Value Date                                | _____ | 2) Amount                                              | _____ |
| 3) Amount                                    | _____ | 3) Application                                         | _____ |
| 4) Interest Rate                             | _____ | a) Principal                                           | _____ |
| 5) Funding Source                            | _____ | b) Interest                                            | _____ |
| 6) Facility #                                | _____ | c) Others                                              | _____ |
| -----                                        |       | Total                                                  | _____ |
| <b>Date</b> _____                            |       | 4) Facility #                                          | _____ |
| <b>Prepared by:</b> _____                    |       | -----                                                  |       |
| <b>Verified by:</b> _____                    |       | <b>Date</b> _____                                      |       |
| <b>Approved by:</b> _____                    |       | <b>Processed by:</b> _____                             |       |
| (Cr) _____                                   |       | <b>Checked by:</b> _____                               |       |
| (Try) _____                                  |       | _____                                                  |       |
| <b>Acc'tg entry by:</b> _____                |       | <b>Acc'tg entry by:</b> _____                          |       |
| _____                                        |       | _____                                                  |       |

**Figure 5.4 : customer profile**

**Figure 5.5 : Customer Profile**

It is the primary design of ABL server rack.



**Figure 5.6: Data Center Rack Diagram ABL**

When we start our journey it was the first design of server implantation design.

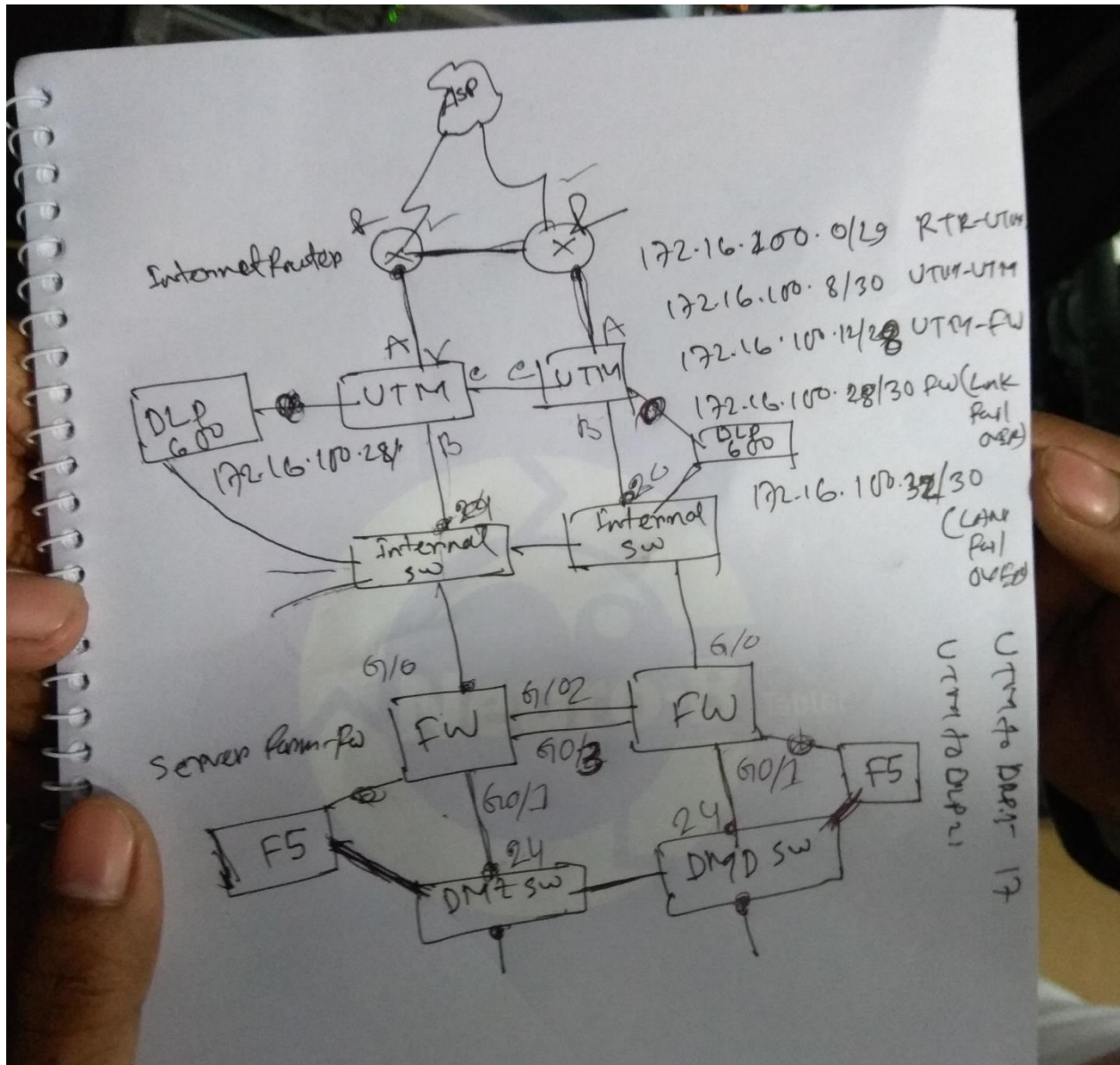


Figure 5.7 : Network design

After completing the rack design.



**Figure 5.8 : Data Center ABL**

Esl network administrator and we the group mates work in ABL server



**Figure 5.9: Data Center of ABL**



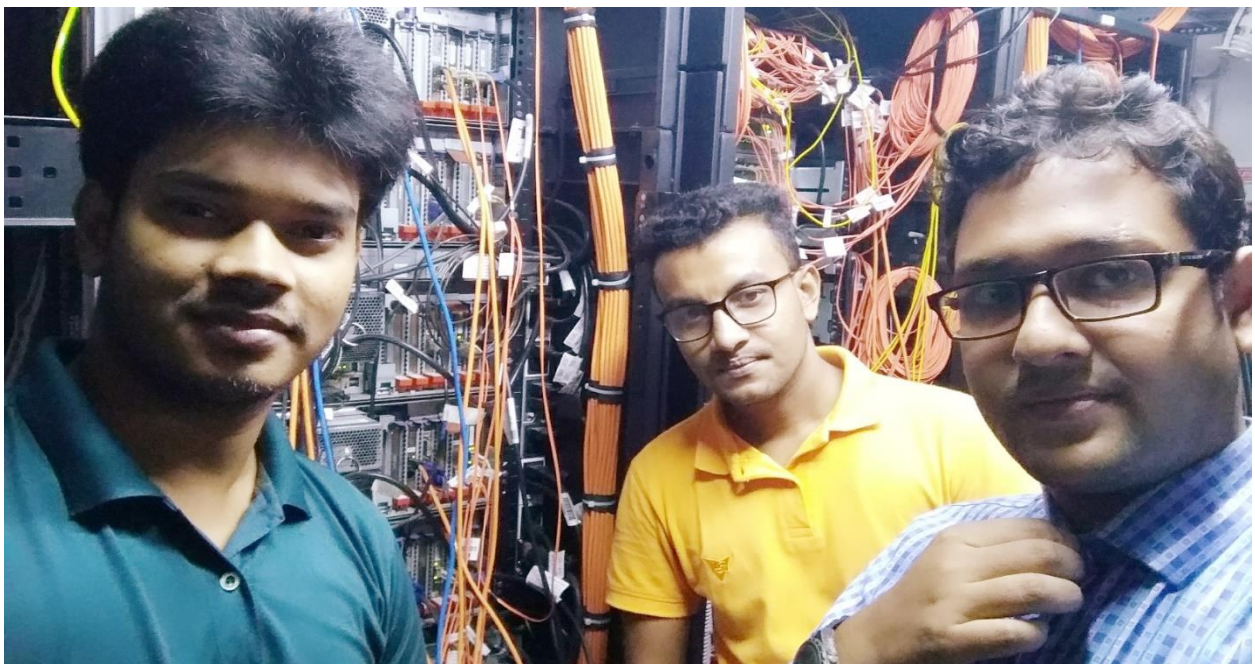
**Figure 5.10 : Troubleshooting Time**



**Figure 5.11 : Cable Connectivity & Masking Time**



**Figure 5.12 : Receiving Devices Responsibility From ABL IT&MIS Division**



**Figure 5.13 : Selfie in Data Center**



**Figure 5.14: IBU DGM Rewarded us For our Great Activity**



**Figure 5.15: GM wishes us (IT & MIS Division)**



**Figure 5.16: Certification Day**

## **CHAPTER 6**

### **CONCLUSION AND FUTURE CAREER**

#### **6.1 Discussion and Conclusion**

Overall internship was a very good field and to the performance site to me and my friends. It helps to increase my skill, strength, abilities and performance. It is a great experience to me and group mates. In this internship I have been able to learn and experience about many networking equipment's of the banking server which bank use to increase their network and power.

First I haven't no idea about the hardware of networks like routers, switches, hubs, cables, UTM, firewall, external firewall etc. but the network administrator and the officers of the ESL helps me to learn, use and implement of the tools. Now I have a huge knowledge them.

I work for the bank project and learn a lot of experience. I solve the PC's problem of the officers. I include them in AD's server. I give them the suggestion how to use PC after including in AD server. I work at least 10 division of the bank.

My group members were so much helpful. When I didn't any problem my group members help me to solve it. They encourage me every time. All that I can say we were just like a family of this internship period.

Banking site internship is huge field to gather knowledge. I am happy to get an opportunity. In this internship I have not only a huge knowledge also have experience. Internship makes a man independent. Here he can research, implement his theory and practical knowledge. I will help him in his future life.

#### **6.2 Scope for Future Career**

We all know internship is the best field to make a tremendous career. As I'm an internee I have practical knowledge, increase my skill in networking field. Moreover I have experience which is very important for me. I know how to communicate with network administrator, how to deal with buyers. In future life I will all gaining experiences to increase my skill and acknowledgement of my work field. My group mater also help me through information. Network administrators gave me direction. Bank authority officers gave me golden suggestions.

## APPENDIX

### Internship Reflection

We go to Agrani Bank Limited with a lot of dream. Fortunately our dream come true. We got outstanding instructor. By his direction we learn a lot of information about banking networking system. We got there another two tremendous administrator. They were so much friendly. For these person our work was very interesting and easy. They suggest us all time. When we face any problem they solve it in a professional way. They taught us about network tools, equipment. After configuring and implementing AD-DS we went every branch to join PC's under the domain system. In branch every officers were very friendly. They reward us, take care of us. They assure us if possible they will try to do something for us. Our internship was beautiful. We gain a lot experiences. Connect with big officers. Our experience will work for our future work field. I am happy that I'm take a chance to do my intern such this reputed organization.

### Company Details

#### Registered Office

Head Office:

Agrani Bank limited, 9D Dilkusha Commercial Area, Dhaka-1000

PBX Range: 9566153-54,

9566160-69, 9566074-75

FAX: (+8802) 956 2346, 956 3662

Email: [agrani@agranibank.org](mailto:agrani@agranibank.org)



# আগ্রাণী ব্যাংক লিমিটেড