

Internship on Basic computer Networking in Industry

Submitted by

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DECLARATION

I by means of this declare that, the scope and quality of this internship report is qualified for the certification internship program in Titas Gas Transmission & Distribution Ltd. This internship report based on the theoretical and practical knowledge I acquired in my internship period. Some contents of work presented here to enrich the report and they mentioned by reference.

This internship report has never been submitted before for any degree, not whole or partial. The presentation has been held on 6 th January, 2022.

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APPROVAL LETTER

(পেট্রোবাংলার একটি কোম্পানি)
www.titasgas.org.bd
তিতাস গ্যাস ভবন, ১০৫- কাজী নজরুল ইসলাম এভিনিউ,
কাওরান বাজার বাণিজ্যিক এলাকা, ঢাকা- ১২১৫

নম্বর: ২৮.১৩.০০০০.০৫৪.২৫.০১৫.২১.২৩০

তারিখ: ২৫ কার্তিক ১৪২৮
১০ নভেম্বর ২০২১

প্রাপক:
Dr. Sheak Rashed Haider Noori, Associate Professor &
Associate Head, Dept. of Computer Science & Engineering,
Daffodil International University.

বিষয়: Daffodil International University এর শিক্ষার্থী Jubaida Salim (ID: 191-15-12422 ও Md. Maksudur Rahman (ID:191-15-12122) এর Internship প্রসঙ্গে।

মহোদয়,

উপর্যুক্ত বিষয়ে আপনার প্রতিষ্ঠান কর্তৃক ২৯-০৯-২০২১ তারিখে প্রেরিত পত্রের পরিপ্রেক্ষিতে জানানো যাচ্ছে যে, Daffodil International University এর Computer Science & Engineering বিভাগের Bsc অধ্যয়নরত শিক্ষার্থী Jubaida Salim (ID 191-15-12422) ও Md. Maksudur Rahman (191-15-12122) কে আগামী ১৪/১১/২০২১ হতে ১৩/০৩/২০২২ তারিখ পর্যন্ত ০৪ (চার) মাসব্যাপী কোম্পানির আইসিটি ডিভিশনের সাথে সংযুক্ত থেকে Internship সম্পন্ন করার জন্য নিম্নবর্ণিত শর্তে মনোনয়ন প্রদান করা হলো:

শর্তসমূহ:

১। আলোচ্য Internship সম্পন্ন করার ন্যূনতম ০১ (এক) মাসের মধ্যে সংশ্লিষ্ট শিক্ষার্থী কর্তৃক মহাব্যবস্থাপক (প্রশাসন), তিতাস গ্যাস টি এন্ড ডি কোং লি. বরাবর ২ (দুই) কপি প্রতিবেদন দাখিল করতে হবে; এবং

২। সংশ্লিষ্ট শিক্ষার্থীকে Internship সম্পন্নকারী সংশ্লিষ্ট বিভাগের প্রধান হতে দৈনন্দিন হাজিরা ও কার্যসম্পাদন সম্পর্কিত প্রতিবেদন ও প্রত্যয়ন পত্র দাখিল করতে হবে।

উপরোক্ত শর্তসমূহ পূরণকরত: আগামী ১৪/১১/২০২১ হতে ১৩/০৩/২০২২ তারিখ পর্যন্ত ০৪ (চার) মাসব্যাপী মোট ৮৩ (তিরিশ) কার্যদিবসের জন্য প্রতি কার্যদিবসে ৮,২০০/- (দুইশত) টাকা হারে শিক্ষানবিশ ভাতা বাবদ ০১ জন শিক্ষার্থীর জন্য (৮,২০০ x ৮৩ কার্যদিবস x ১জন) = ৮,১৬,৬০০/- (ষোল হাজার ছয়শত) টাকা হিসেবে ০২ জন শিক্ষার্থীর জন্য মোট (৮,১৬,৬০০/- x ২জন) = ৮,৩৩,২০০/- (তেত্রিশ হাজার দুইশত) টাকা শিক্ষানবিশ ভাতা কোম্পানির নিয়মানুযায়ী হিসাব বিভাগ কর্তৃক চেকের মাধ্যমে প্রদান করা হবে।

আইসিটি ডিভিশন	
ক্রমিক নং	তারিখ ২৫/১১/২১
তাৎক্ষণিক	৮০৬/৪০
জরুরী	১১/১১/২১
আলাপ	১১/১১/২১
প্রচার	১১/১১/২১
সংরক্ষণ	১১/১১/২১

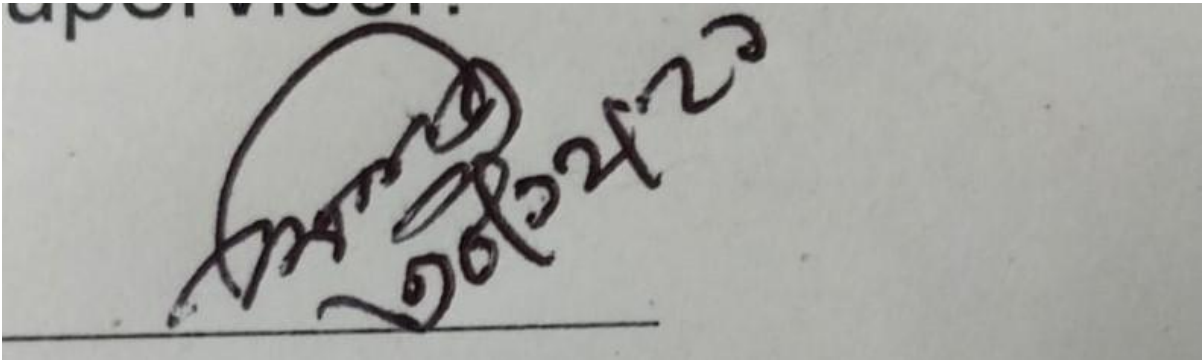
আপনার বিশ্বস্ত,

Certificate

This is to certify that the report is the record of internship done by Md.Maksudur Rahman (ID: 191-15-12122) and Jubaida Salim(ID: 191-15-12422) for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering (CSE) from Daffodil International University(DIU). This internship has been satisfactorily completed under my supervision and I approve this as commendable.

I wish them good luck in his future career.

Supervisor:

A photograph of a handwritten signature in dark ink on a light-colored surface. The signature is written in a cursive, stylized script. Above the signature, the word "Supervisor:" is printed. The signature is written over a horizontal line.

Engr. Md. Sirajul Islam
Deputy General Manager
Department of Network

ACKNOWLEDGEMENT

First of all I would like to thank almighty Allah, for his grace in accomplishing my internship report timely.

I would like to express my gratitude to the **Faculty of Science & Information Technology** for keeping internship credit in the curriculum of the graduation program and giving me a scope of tasting the flavor of industry oriented tasks and the field of work with my interest. I am also grateful to the **Faculty of Science & Technology& Office of Placement & Alumni**, AIUB for arranging an opportunity for choosing an own interested organization and complete internship there.

I am also thankful to my organization supervisor **Engr. Md. Sirajul islam**, General Manager, *Titas Gas Transmission And Distribution Company Limited* from the core of my heart for his kind support, guidance, constructive, supervision, instructions and advice and for motivating me to do my internship smoothly at *TGTDCL*.

I feel proud and gratified that I was always held the under supervision of the Deputy General Managers of the 3 Departments and got advices directly from **Engr. Md. Sirajul Islam, Deputy General Manager, Network Department, Engr. Md. Tareq Mostofa, Deputy General Manager, Hardware Department, Engr. Md. Atiqure Rahman, Deputy General Manager, Software Department, Titas Gas Transmission And Distribution Company Limited**. Here, with daily reporting along with mental and professional support enhances my experience in the internship life.

Moreover, to prepare this report and other documentation regarding Internship Report and else I would show appreciation to the honorable teacher Ms.Subhenur Latif , who always advised me and helped me through hands and pens.

Dedicated To

Our Parents

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1. INTRODUCTION

1.1. **Rationale** (*Why are you interested to undertake this report? What is the importance of this report?*)

The Internship program is critical for an understudy as the start of his or her expert career for a new alumnus in terms of gaining experience. It will have a rational concept about his or her study space. This showcases a few projects inside an organization whose primary goal is to provide real-world job experience to those who are new to a certain sector.

In this report, I might want to present my part at Titas Gas Transmission And Distribution Company Limited (TGTDC) as an Internship Student with

1.2. **Background** (*Description of the Organization/Company- not more than 5 pages*)

1.2.1. **Organization**

A huge gas field was discovered on the Titas Riverbank in Brahmanbaria which gave birth to the journey of natural gas in Bangladesh, in 1972. After the construction of the 14-inch diameter 56-mile-long Titas-Demra transmission pipeline by the then government-owned Industrial Development Corporation, on April 26, 1986 the company started commercial activities, by supplying gas to the Siddhirganj Thermal Power Station. In October 1986, the first residential gas connection was provided to the house of the eminent writer Mr. Shawkat Osman. As a progressive national organization, Titas Gas has earned the pride of being trusted by the people through its services. This glorious success has been possible due to the relentless work and sincere efforts of the officers and employees of this organization at all levels. It has even been playing a leading role in saving foreign exchange by ensuring the desired use of natural gas. Titas Gas's contribution to the country's overall economy as a pioneer of gas distribution companies is as radiant as its inextinguishable flame. From the beginning of the formation

of the company, 90 percent of the shares were owned by the then government and 10 percent of the shares were owned by the Shell Oil Company. Under the Nationalization Order of 1972, ownership of the said amount of shares was vested in the Government of Bangladesh by all state-owned companies. The remaining 10 percent shares were transferred to state ownership through Petrobangla on 9 August 1985 in exchange for a payment of 1.00 (one lakh) pounds sterling as per the agreement of the Government of Bangladesh with the Shell Oil Company. After gaining independence in 1971, the company was initially transformed into a public limited company with an authorized and paid-up capital of Tk 1.6 crore and was placed under the state-owned company Petrobangla. At present, the authorized and paid-up capital of the company is Rs. 2,000.00 crore and Rs. 969.22 crore respectively.

Titas Gas Transmission and Distribution Company Limited celebrated its 50th anniversary on November 20, 1984. Titas Gas has been conducting its activities with a specific goal of achieving the overall welfare of the country and the nation for a long period of 50 years. Titas Gas is working relentlessly with the goal of future prosperity and progress of Bangladesh by supplying natural gas to the doorsteps of natural gas consumers. November 19, 2014, marks the 50th anniversary of the Titas Gas Company.

1.2.2 Nature of the organization

TGTDCL is a natural gas distributor in Bangladesh since 1964. This is a company that is incorporated with Petrobangla. TGTDCL is a government organization in Bangladesh. They provide natural gas to the people of Bangladesh. Here is TGTDCL at a glance-

Name of the Company	Titas Gas Transmission and Distribution Company Limited (TGTDCL)
Date of Incorporation	November 20, 1964
Registered Office	Titas Gas Bhaban, 105 Kazi Nazrul Islam Avenue, Kawran Bazar Commercial Area, Dhaka-1215
Corporation	Bangladesh Oil, Gas and Mineral Corporation (Petrobangla)
Administrative Ministry	Ministry of Power, Energy and Mineral Resources
Titas Franchise Area	Greater Dhaka and Greater Mymensingh
First Constructed Pipeline	Brahmanbaria to Demra 14" DN X100 PSIG X 58 Miles
First Gas Supply	28 April 1968 to Siddhirganj Thermal Power Station
Authorised Capital	TK. 2,000.00 crore
Paid up Capital (As on June 30, 2020)	TK. 989.22 crore
Gas sales (FY 2019-20)	15,107.40 MMCM
Sales Revenue (FY 2019-20)	TK.16,950.41 crore
Payment to the National Exchequer	TK. 608.91 crore
Number of Customers (As on June 30, 2020)	Total 28,74,848, Power (Govt.)-17, Power (Private)-29 Fertilizer-3, Industry-5,313, CNG-396, Captive Power-1, 701 Commercial ^a12,075 Domestic-28,55,302
Constructed Pipeline (As on June 30, 2020)	13,196.85 km
Market Share in Sales	53.65%
Source of Gas supply (Fields)	Titas, Habiganj, Narsingdi, Kailashtila, Bibiyana, Moulvi Bazar, Sriky and Bangura Gas Fields.
Manpower (As on June 30, 2020)	2,100
Officer	897
Staff	1,203
Chief Executive	Ali Mohd. Al-Mamun
Listed with DSE	June 9, 2008
Listed with CSE	June 19, 2008

1.2.3 Services and employment

Growth of customers in TGTDCCL over last ve years is shown in Figure 1.1 and TGTDCCL pipeline statistics over last ve years is shown in Figure 1.2

Customer Category	Number of Customer				
	2015 -16	2016 -17	2017 -18	2018 -19	2019 -20
Power	38	43	44	45	46
Fertilizer	3	3	3	3	3
Industrial	4,604	4,610	5,128	5,279	5,313
Captive Power	1,085	1,088	1,630	1,680	1,701
CNG	333	335	382	394	396
Commercial	10,917	10,919	11,688	12,075	12,075
Domestic	20,06,013	27,17,536	27,64,247	28,46,419	28,55,302
Total	20,23,005*	27,34,534*	27,83,134*	28,65,907*	28,74,848*

Figure 1.1: Customer growth



Figure 1.2: Pipeline statistics

Financial Result compared with last year is detailed below:

(Crore Taka)

Description of Item	2019-20	2018-19	Increase/(decrease)
Paid up Capital	989.22	989.22	-
Revenue Reserve	5,813.57	5,710.96	102.61
Long term Liabilities	2,710.56	2,391.56	319.00
Current Liabilities	8,286.87	7,118.41	1168.46
Long Term Investment	2864.43	4,424.79	(1560.36)
Fixed Asset	1493.99	1,465.43	28.56
Current Asset	12185.75	9,308.93	2876.82
Sales and Other Income	16987.94	14,164.48	2823.46
Cost of Sales	16368.52	13,433.99	2934.53
Gross Profit	619.42	730.48	(111.06)
Administrative Cost	511.46	479.88	31.58
Transmission & Distribution Cost	7.64	10.23	(2.59)
Income Interest and Non-operational Income	423.92	403.77	20.15
Net Profit Before Tax	504.61	626.63	(122.02)
Net Profit After Tax	359.81	464.47	(104.66)
with Capital Gain	3.64	4.70	(1.06)

Figure 1.3: Financial result

1.2.4 Mission and Vision

- Delivering improved service to its valued customers.
- Ensuring efficient utilization of natural gas.
- Ensuring good governance in its gas marketing business.
- Safe and efficient distribution of natural gas.

1.2.5 Strategic objectives

- Enhancing energy security.
- Enhancing efficient use of energy and its supply in Titas Franchise Area.
- Enhancing the performance of human resources.

1.2.6 Functionalities

TGTDCL distributes natural gas among various categories of beneficiary customers through pipelines in Titas related areas. It works with Gas marketing through construction, maintenance, and rehabilitation of gas pipelines through associated transmission/distribution installations. It sells gas and collects the revenue. TGTDCL is functioning for human resource efficiency.

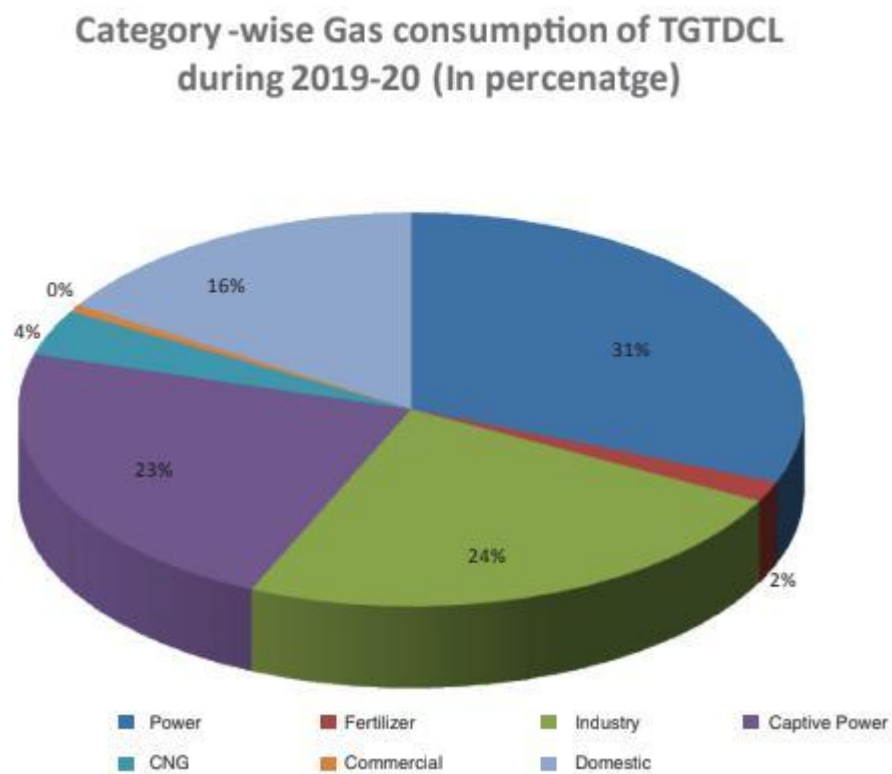


Figure 1.4: Gas consumption of TGTDCL

1.3. Objectives (*What are your objectives/purposes you intend to attain or achieve in this report?*

Ex. To describe the various practices of the company in dealing with the clients; to find out how issues and problems are resolved using technologies; etc.)

The purpose of this study is to learn the Network, Hardware & Software module services of TGTDCCL and gain an understanding of the module operations thoroughly.

The Network modules that are used in TGTDCCL are operated by three appointed sections. The Hardware modules that are used in TGTDCCL are operated by three appointed sections. And the Software modules that are used in TGTDCCL are operated by five appointed sections. In these three months of the internship period, I was assigned to these eleven sections in three department separately for training. After three months of internship, I learned how the services are performed in TGTDCCL and all other activities in the ICT Division.

1.3. Objectives

The main purpose of doing an internship was to obtain experience in a corporate context and to apply what I had learnt so far in theory.

Throughout my internship, I learned a range of abilities that would assist me in my future career. My goals as an Intern Teaching Assistant were to:

- Gain familiarity with how an organization operates;
- Learn how to manage time and issues in a real organization;
- Learn how to deal with students as a teacher;
- Learn how to manage course materials for student improvement;
- Learn how to create creative questions for students so they can learn better;

Chapter 2. Details of Internship Work Theory

2.1. Definition of Network

computer Networking : A computer network is a system made up of multiple computers for sharing resources.

Computer network users can print files and send messages to each other and run programs from one computer to another.

2.2. Types of Network

There are different types of network---

- 1) LAN(Local Area Network)
- 2) WAN(wide Area Network)
- 3) MAN(Metropolitan Area Network)

1) LAN= Local area network consisting of the same building or office or a few computers nearby.

The structure of this type of network is very simple and easy. The cost of devices to use it is very low. Devices are hubs, switches, repeaters.

In everyday life we use LAN. This network is used for office-court business.

The main purpose of LAN is to exchange information and share resources between devices.

Using LAN we can save on printer model scanner etc devices.

2) WAN= The Wide area network is usually a network of remote LAN networks.

Usually such a network is formed between two countries.

Can range from a few kilometers to thousands of kilometers.

The structure of a wide area network is complex and usually covers a wide area.

The devices are router, model, switch.

3)MAN=Man is formed by combining multiple LANs. This interface consists of several LANs, the Metropolitan Area Network.

Its speed is lower than that of LAN and its error rate is higher. Time delay is high.

Usually Image, Compose video, Compose Video Transmission and PABX and Lan is connection consists of MAN.

The devices are router, microwave, antren.

2.3. Network Topology types

Networking Topology Types=

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

1)Bus Topology= This is a bus topology that is connected to a core cable or main cable to the devices or to the workstation.

When the signal in the bus topology comes and goes on the backbone, only the recipient receives the computer signal and the others ignore it.

The bus topology requires the least amount of cable and the cost is very low. The backbone is extended using it. The whole system is not damaged when any computer is damaged by the cable taken from this organization. This topology does not disrupt the activities of the whole network even if any device is added or the computer is damaged.

2) Ring Topology= Ring topology is a topology in which a computer is connected to its other computer, meaning that each computer will be connected to its surrounding computer in some way or another.

Ring topology is when data flows from one site to another, which reduces the likelihood of packet organization and possibilities.

Ring topologies are very difficult to add and remove during network. Network activity can be difficult. Printing is difficult. In this topology all computers need to be turned on to communicate with each other.

3)Mesh Topology= Mesh topology is a topology where one computer is connected to another computer and one computer is connected to many of its computers. Mesh topology is if there is an additional connection between a network device or a computer.

2.4 IP Address and types

IP Address:

The full meaning of IP address is Internet Protocol address. An IP address is a unique identity address for each computer in the network or with each computer.

An Internet Protocol address is an IP address that identifies the location of billions of digital identities by identifying the destinations of two devices by identifying the destinations of two devices to connect to another device or to connect two devices or multiple departments online.

IP4 its types are discussed below:

Class A:

IP address range (0-127)=0 0000000=0 network address used for this.
=01111111=127 loop back address used for this.
Default subnet mask=255.0.0.0
Private IP address range =10.0.0.0
Total no of Network= 2^7-2
Total no of Host= $2^{24}-2$
Host address always changeable

Class B:

IP address range (128-191)=10 0000000=128 network address used for this.
=10 1111111=191 loop back address used for this.
Default subnet mask=255.255.00
Private IP address range =172.16.0.0.172.31.255.255
Total no of Network= $2^{14}-2$
Total no of Host= $2^{16}-2$
Host address always changeable

Class C:

IP address range (192-223)=110 00000=192 network address used for this.
=110 11111=223 loop back address used for this.
Default subnet mask=255.255.255.0
Private IP address range =192.168.0.0
Total no of Network= $2^{21}-2$
Total no of Host= 2^8-2
Host address always changeable

Class D:

IP address range (224-239)=1110 0000=224 network address used for this.
=110 11111=223 loop back address used for this.
Default subnet mask=255.255.255.0
Private IP address range =192.168.0.0
Total no of Network= $2^{20}-2$
Total no of Host= 2^8-2
Host address always changeable

Class E:

IP address range (240-255)=1111 0000=240 network address used for this.
=110 11111=223 loop back address used for this.
Default subnet mask=255.255.255.0
Total no of Network= $2^{20}-2$
Total no of Host= 2^8-2
Host address always changeable

Subnet Mask= A 32-bit address of the IP address is used which is commonly called subnet mask. We use this IP address to distinguish the network number and host number of the network to identify the IP address.

The job of the subnet mask is to identify the network ID and which ones with an IP address and Host ID.

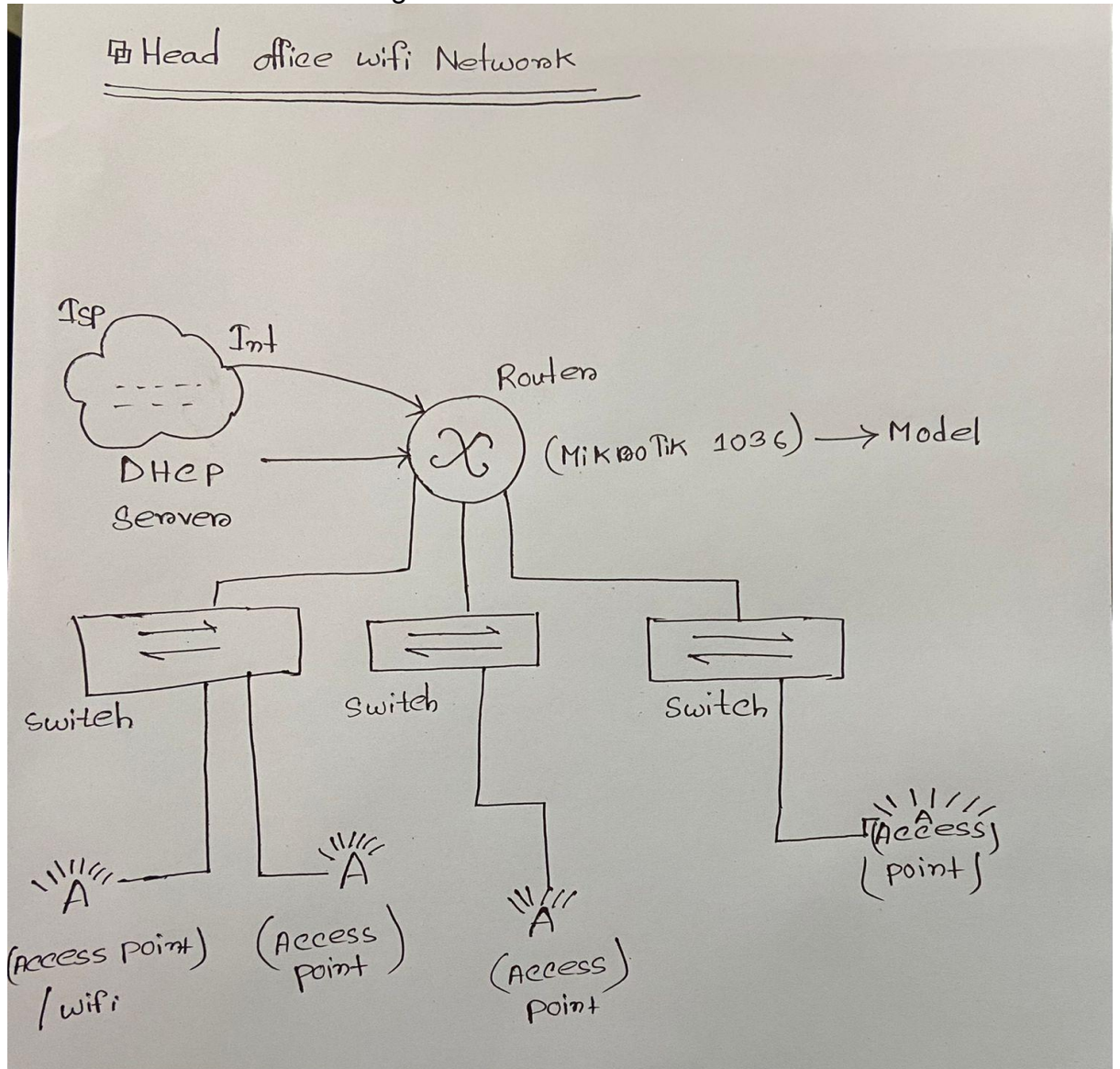
2.6 Network Address

Network Address:

A networking address is one of the identifying addresses of a networking node or host. Networking is the process of identifying different computers in a network as a number address. Each computer or a computer located through it is given a specific address called a networking address.

3.1 Head Office Wifi Network

The router is connected through the line of IPS to the Internet connector.



The router is configured through the DHCP server. The switch from the router to the switch is connected via cable. Connect to the access point from the switch. Users are given a connection from an access point.

DHCP sources are not configured through the switch. They are configured only through the main router.

3.2 Zone Office LAN Network

Zone office LAN Network

H/O. DC

10.20.30.0/24

10.103.10.0/24

10.102.10.0/24

Branch Router Tongi

10.101.10.0/24

172.10.3.1/30

10.100.10.11/24

ISP

Cloud

Work Hall means that connection is provided indirectly from head office to branch.

Router to router connect is provided from head office.

There are about 26 branches under the head office. The IP address of the branch office is used to identify the ISP address of the main office. And different IP addresses are identified for each branch.

ISP Cloud is controlled by third-party companies. After identifying each IP address, the lines are used as paths and tunnels.

Data has to be secured through firewall. This is the job of the zone office networking.

3.3 Router Configure

The function of router configuration is to connect a router to PC.

The router address is given on the back of the router. The address will go to the PC through the browser and a login page will appear. There you have to login with user name and password. And the user name and password are given on the back of the router. You need to login with that password. SSID, password, router and IP address, sub netting: Max, DNS server (primary and secondary) are to be set with these addresses.

3.4 Wifi Maintenance

1. Router ping test
2. If found Down the test power
3. If power is okay than LAN check, Cable Connector / If everything okay
4. PC wifi Dongle
5. PC Driver check
6. Authentication check
7. Borrower Limitations

3.5 Lan Maintenance

Lane maintenance for server

The name of the small chocolate that is white is modular. Fast through a cable's patch panel, that is, the colors are set. This cable has eight colors. You have to set these eight colors.

With the help of the tester, it is necessary to set the color and then test it through the tester. So that the eight colors - whether it is OK to be tested with a tester.

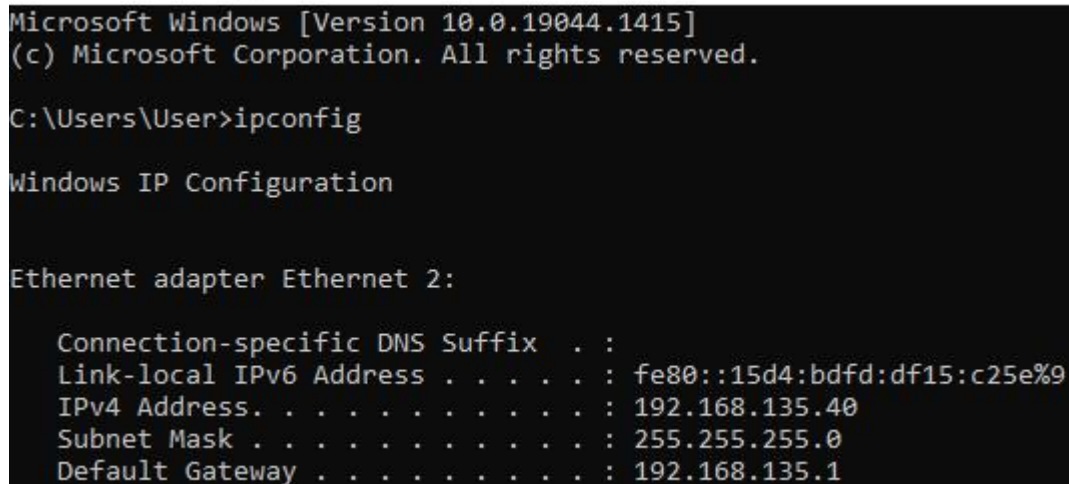
If the lights of that tester are lit in a serial way. If 1236 or 123456 serial lights are on then you have to understand that it is OK to test.

One cable can be tested and connected via another cable. That means only the two ends can be tested. After LAN maintenance the server can be connected to a single cable with multiple cables. Can be connected via a cable. This is the work of LAN maintenance.

3.6 Basic Networking Command

4 types of commands

1. Command of ip config.....Enter



```
Microsoft Windows [Version 10.0.19044.1415]
(c) Microsoft Corporation. All rights reserved.

C:\Users\User>ipconfig

Windows IP Configuration

Ethernet adapter Ethernet 2:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::15d4:bdfd:df15:c25e%9
    IPv4 Address. . . . . : 192.168.135.40
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.135.1
```

2. Command of ip config/all....Enter


```

Microsoft Windows [Version 10.0.19044.1415]
(c) Microsoft Corporation. All rights reserved.

C:\Users\User>ipconfig

Windows IP Configuration

Ethernet adapter Ethernet 2:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::15d4:bdfd:df15:c25e%9
    IPv4 Address. . . . . : 192.168.135.40
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.135.1

```

3. Command of ping 192.168.11.1.....Enter

```

C:\Users\User>ping 192.168.11.1

Pinging 192.168.11.1 with 32 bytes of data:
Reply from 192.168.11.1: bytes=32 time<1ms TTL=64
Reply from 192.168.11.1: bytes=32 time<1ms TTL=64
Reply from 192.168.11.1: bytes=32 time<1ms TTL=64
Reply from 192.168.11.1: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.11.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

```

4. Command of trace rt google.com....Enter

```

C:\Users\User>tracert google.com

Tracing route to google.com [142.250.71.46]
over a maximum of 30 hops:

  0  <1 ms    <1 ms    <1 ms    192.168.135.1
  1  2 ms     3 ms     <1 ms    ritt-111-125.ranksitt.net [103.35.111.125]
  2  1 ms     <1 ms    <1 ms    172.21.27.142
  3  9 ms     9 ms     8 ms     172.21.27.141
  4  7 ms     8 ms     8 ms     172.31.3.41
  5  184 ms   7 ms     7 ms     172.31.40.41
  6  31 ms   31 ms   31 ms    103.21.41.9.earth.net.bd [103.21.41.9]
  7  32 ms   32 ms   33 ms    72.14.239.61
  8  32 ms   32 ms   32 ms    142.250.233.143
  9  31 ms   31 ms   31 ms    maa03s35-in-f14.1e100.net [142.250.71.46]

Trace complete.

```

Executive Summary

This internship has been done under the supervision of the Software department, ICT Division. They kindly assisted me in analyzing the session successfully.

In this report, all the sections of this department and their works have been specified individually. There are several chapters with Introduction, Details of Internship work, and others. There are nine modules in total, all the modules are operated by the officers and engineers of this organization. I got the chance to be familiar with these modules and their operations, which has been described in this report. The Software department helped me to learn the module operations and the other documentation works of them.

Titas Gas Transmission and Distribution Company(TGTDCL) is one of the biggest natural gas providers in Bangladesh. It is a privilege for me that I have done my internship at TGTDCL. This internship helped me to be familiar with the working environment and made me skilled enough for being professional in life

4 .Limitations and Recommendations

Limitations

On the way to my internship, I have faced some limitations. These limitations are the obstacles to the journey of learning from the depths. The main limitations are -

- Constraints and restrictions of the organizing authority.
- Lack of Records.
- Lack of accessibility.
- No well-specified environment for interns.

Recommendations

Recommendation for new Interns

1. A good supervisory relationship is pivotal to the successful completion of our degree as a student. If the relationship is not solid or turns sour, there can be serious consequences. A good supervisor provides expert guidance in our research.
2. The support of a good supervisor after graduation can also provide us with good connections and references to bootstrap our careers. Also, get into the habit of documenting whatever task we do on a daily basis.
3. The records made are not only important and useful when writing our report, but also very important as a reference in the future when faced with similar tasks.

Recommendation for the Organization

According to the analysis and findings, there are some recommendations for the organization based on the internship experience-

1. Making information publicly available, in order to improve transparency and provide opportunities for scrutiny by researchers and members of the public.
2. The number of qualified employees should be increased.
3. The organization may give good training to the existing to improve their skill.
4. The company should undertake the activity according to their strength and capability in the future then only it can be performed without unnecessary pressure and it can maintain goodwill in the community.
5. The company director should allocate authority and responsibility to the very clearly to perform successfully in the future.
6. All employees should work hard to achieve the goals and objectives of the organization.

Conclusion

Internship programs are very important for the students of the Department of Computer Science and Engineering as we only acquire bookish knowledge. This program gives us the prospect to have practical knowledge using our bookish knowledge so that we can relate the theories to reality. I am fortunate enough to complete my internship program at Titas Gas Transmission Distribution Company Limited, Kawran Bazar, Dhaka. Moreover, I got the opportunity to work in the ICT Division. Although the internship period is very short to acquire in-depth knowledge, yet it gave me a taste of the industrial world. New learning and the helpful attitude of colleagues is a thing to be remembered for a long time. I certainly believe this experience of working in Titas Gas will help me to be a successful professional in life and also work as an added advantage for the years to come. Thanks to TGTDCCL for giving me a head start in my career. Finally, thanks to Daffodil University and the Faculty of Computer Science and Engineering (CSE) for conducting this internship opportunity.

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