

INTERNSHIP ON MIKROTIK ROUTER SETUP AND CONFIGURATION

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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.

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APPROVAL

This Internship titled “**Mikrotik Router Setup and Configuration**”, submitted by **Jickrul Hasnat**, ID No : 201-15-13915 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 19 January, 2022.

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DECLARATION

I hereby declare that is internship report is prepared by me, **Jickrul Hasnat Emon, ID No: 201-15-13915** to the department of Computer Science and Engineering, Daffodil International University, under the supervision of **Md. Sadekur Rahman**, Assistant Professor, Department of CSE, Daffodil International University.

I also declare that neither this internship report nor any part of this internship report has been submitted elsewhere for award of any Degree or Diploma.

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First I express my heartiest thanks and gratefulness to "**Almighty**" for his special blessing to let me makes possible to complete this internship successfully.

To make a report and deal with a practical world is not so easy work if not get support by others. Therefore, I feel grateful to and wish my profound indebtedness to **Md. Sadekur Rahman**, Assistant Professor, Department of CSE, Daffodil International University, Dhaka. He guided me to finish this task successfully. His endless patience, scholarly guidance, continual encouragement, constant and energetic supervision, constructive criticism, valuable advice, reading many inferior draft and correcting them at all stage have made it possible to complete this internship.

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

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

And finally but immensely express my utmost gratitude to my parents for their love and support, affection and inspiration.

ABSTRACT

I want to start by expressing my deepest appreciation to the Almighty. I was only able to complete my internship and begin working at a corporate ISP communication medium because of his mercy. Working with MIKROTIK, CISCO, NETGEAR, Tp-Link, Windows Server, and other technologies at **Amber IT Limited**. Working with them allows me to learn a lot about network configuration and how to troubleshoot issues on huge networks. During my three months of internship at **Amber IT Limited**, I learned a lot about the workplace.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

In this modern era, PC networks play a crucial role. When we were unable to imagine that a device like a computer will eventually replace us and enable us to complete the same tasks more effectively. The fact that our information will be transported over a distance of more than a million miles in a few seconds was something we were unable to imagine. All of these, however, are currently evident and true thanks to the steady improvement. None of these arrived in a single day. Additionally, modern-day people are unable to imagine the equipment or devices, and in order to access all of these advanced devices' features, one must be a member of an organization. Similarly, the associations that are helping to provide this assistance to the buyers are the ISP associations. People are paying them in accordance with their management. Information is the most vital and crucial item in the modern world. Families today are very ready to collect information and correspond.

1.2 Motivation

The internet is currently available everywhere. Due to the fact that it is used widely throughout the firm, its usage is growing daily. Understanding how PC groups function is important since our entire existence revolves around them. PC organization is essential for the IT industry, thus I want to learn it for myself.

1.3 Internship Objectives

- To obtain practical experience
- Connecting theoretical and practical knowledge
- Learn something new about network
- Improve abilities and expertise
- Discover various routing techniques
- Acquire real-world experience

1.4 Introduction to the Company

Amber IT Limited One of the greatest ISPs in Bangladesh, Amber IT has grown significantly since its founding in 1997 and now serves about 4000 customers. Amber IT offers a variety of services, including corporate internet, IP telephone, home internet, radio link, hosting web development, and mail domains.

Head Office

Amber IT Limited

Located in Navana Tower

Address: Gulshan 1, Navana Tower (7th floor) 45 ,Gulshan South C/A, Circle 1, Dhaka 1212

Hours: Open . Closes 6PM

Phone: 09611-123123

Website : www.amberit.com.bd

1.5 Report Layout

The layout of my report is assorted by Chapter 1: Internship Introduction, Motivation, Internship Objectives, Introduction to the Company. Chapter 2: Organization Introduction, product and Market Situation, Target Group, Organizational Structure. Chapter 3: Daily Task and Activities, Events and Activities, Project Task and Activities, Challenges. Chapter 4: Competencies Earned, Smart Plan, Reflections, Chapter 5: Discussion and Conclusion, Scope for Further Career of the internship.

CHAPTER 2

ORGANIZATION

2.1 Introduction

Amber IT isn't just another link in Bangladesh's network of voice and information providers. The creation of a public, fully adaptable MPLS organization and the continuous testing and acceptance of developing interchanges stages serve as confirmation of our pioneering spirit. As a result, we have established ourselves as a correspondences provider whose focus is on emphatically attending to organizations' interchanges needs.

We are committed to helping our customers. We achieve this not only through our extensive web/information network, IP communication, and related advantages, but also by streamlining the process for requesting, provisioning, and maintaining them. The Amber Group, a conglomerate made up of 20 enterprises from several industries, is concerned with Amber IT.

Amber IT is committed to providing the services that our clients require from an administration-giving Internet company. Which is to provide the most reliable assistance along with the best and most up-to-date equipment available.

We picture a world where assistance is readily available and there are no issues. In the virtual outback, we're trying to be model citizens.

The goal of Amber IT Limited is to become the primary provider of ICT systems in the nation, thereby meeting the growing information and communication technology needs of Bangladesh and the global market and significantly boosting the national economy.

2.2 Product and Market Situation

I've worked with MikroTik Router, Cisco, DHCP and DNS Server, AP Configuration Cloud, independent mode Network, etc. during a temporary job program.

I have learned a lot about MikroTik trading and directing in particular. That is used for corporate offices, clothing, materials, international organizations, educational institutions, hotels, and network setup. Switches, switches, Security texture, remote framework, stockpiling systems administration, and distributed computing administration are products of the Cisco range.

We are aware of how enormous the global market for business field work is. Every worldwide corporation, five-star hotel, clothing company, and college of any kind of association needs its own organization. I have a couple of good opportunities in this commercial area to find my future career.

One of the best ISPs in Bangladesh is Amber IT Limited, which has branches in virtually every upazila and location in the country. Amber IT currently serves about 4000 customers, and as the days go by, its popularity among businesses grows. As a communications provider offering a variety of high-quality voice and information services for businesses, Amber IT has grown steadily and naturally.

2.3 Target Group

Each business and organization needs to increase their PC and time capabilities to stay competitive and productive in an ever fast-changing global environment. Amber IT Limited has developed a special blending of skill sets that are frequently cited in the current commercial sector. Amber IT Limited is moving forward with the necessary motivation in order to achieve its goals.

Golden IT Limited's business divisions include:

- Arrangement of sale to enterprise and corporate gatherings
- ICT system integration as per corporate prerequisites
- Conveyance of ICT items

2.4 SWOT analysis

During my internship period, I noticed many internal things and faces some obstacles. Here it is mentioned below in a SWOT table.

Table 2.1: SWOT analysis

<u>Strengths</u>	<u>Weaknesses</u>
Skills in Customer Service, Creativity in Problem Solving, and ISO Certified Company.	Lack of teamwork, lack of training and development opportunities, and a lack of competition.
<u>Opportunities</u>	<u>Threats</u>
The implementation of technology and websites in the public sector; and new cyber laws and policies.	Working under a temporary contract; Increasing Competition.

2.5 Organizational Structure

The organizational structure of Amber IT Limited is shown below.

- Chairman
- Managing Director
- Chief Operating Officer
- Deputy General Manager
- Assistant General Manager
- Senior Manager
- Manager
- Senior System Engineer
- Assistant System Engineer

CHAPTER 3

TASKS PROJECTS AND ACTIVITIES

3.1 Daily Task and Activities

I have a ton of work and performance every day as an intern. My internship company, Amber IT Limited, provided me with knowledge that I have stored. My staff helps me throughout the day and we talk about it every day. The following things were included in my daily work list:

- All Backbone and Client links are monitoring
- Troubleshooting
- Checking Mail
- Providing Logical handover and Physical support at client end
- Corporate support
- If Client faces network issue, Create Complain Ticket, Troubleshoot, Solve Issue, and Close Ticket

3.2 Events and Activities

- Designing, setting up, and implementing a network by hand.
- Troubleshoot and repair network issues.
- Monitoring device status, and fiber optic cable issues.
- Support for the office network.

3.3 Project Task and Activities

I have accomplished a lot with Amber IT. The opportunity to work with the Support team is wonderful.

A few of my works are listed below:

- Update an ongoing project.
- Support the Networking team.
- Update the inventory list of network components.

3.3.1 Definition of MikroTik Router

It is a marking switch, MikroTik. The establishment of switches and remote ISP systems dates back to 1996.

It features all of the essential components needed for an ISP, including routing, firewalls, transmission capacity boards, remote access points, backhaul connections, interest doors, VPN servers, and more. a quick and simple setup process and an intuitive user interface.



Figure 3.1: MikroTik Router CCR

3.3.2 MikroTik Router Login

Enter the switch's MAC or IP address, choose a username, and, if necessary, enter a secret phrase before tapping the Connect button to connect to the switch. The port number can also be entered after the IP address, separated by a colon, like this: 10.102.137.65:9291. In the Router OS administrative menu, the port can be adjusted.

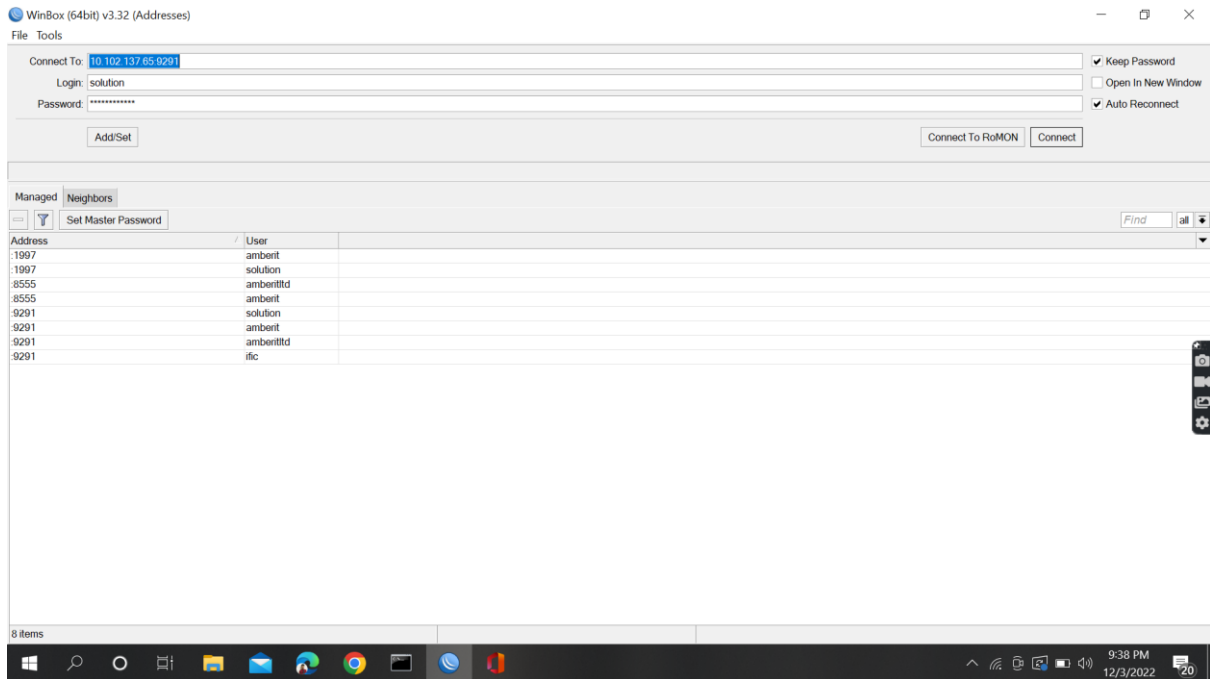


Figure 3.2: MikroTik Router Login Interface

3.3.3 MikroTik Router Interface

Numerous types of organization interface cards, also known as virtual connection points, are supported by the MikroTik Router Operator System. Bridge Interface, VLAN, Bonding, etc. are few examples. They each have their own submenu. The general points of interaction menu allows you to design and browse every point of interaction, all of which have standard quality features.

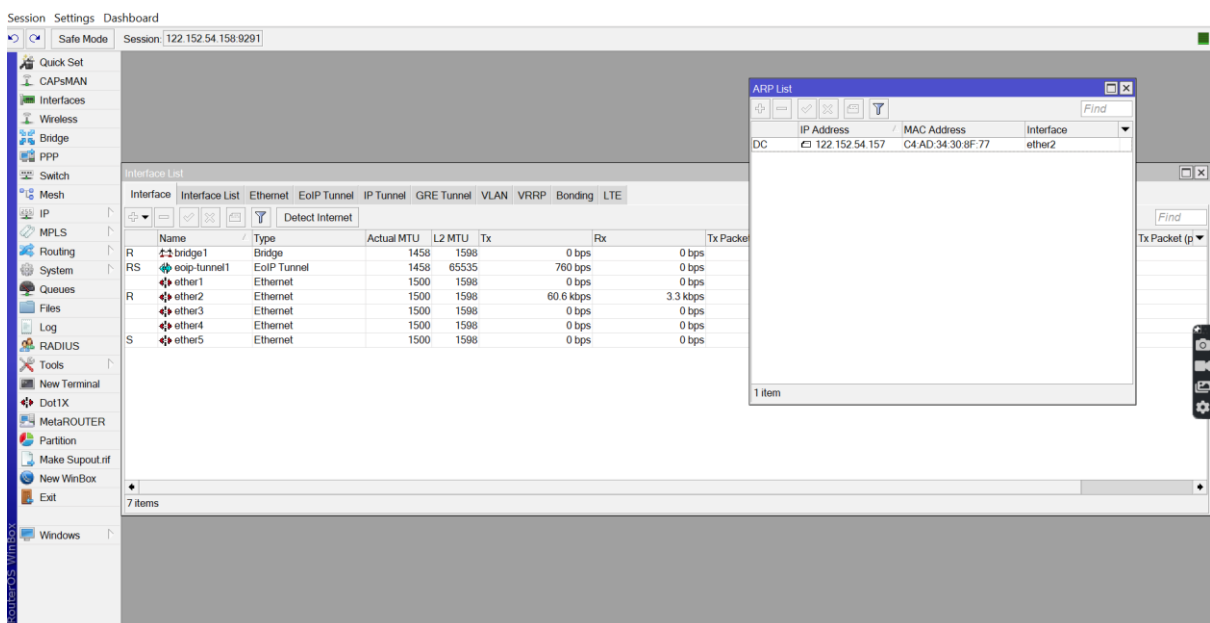


Figure-3.3: Router Interface

3.3.4 DHCP Server Configuration

- At first go to the IP-DHCP server menu.
- Presently contact one of the DHCP setup buttons and pick the connection point which is needed for the arrangement DHCP server from the same quality server. Drop down the connection point and afterward click the following button.
- Presently click on the following stage button. Client got IP address.
- Pick the entryway address for the given organization in the passage for DHCP Network input box and snap the following button.
- Give IP range from the DHCP client or LAN client will get IP address to give outside input box and presently click on the following button.
- Give DNS server IP and the snap next button.
- IP rent time, Now click on the up next button which is naturally arrangement.
- DHCP arrangements is finished now and this is an effective message that will be displayed here.

Connect any IP device, such as a laptop, desktop, smartphone, and more, to the organization right now.

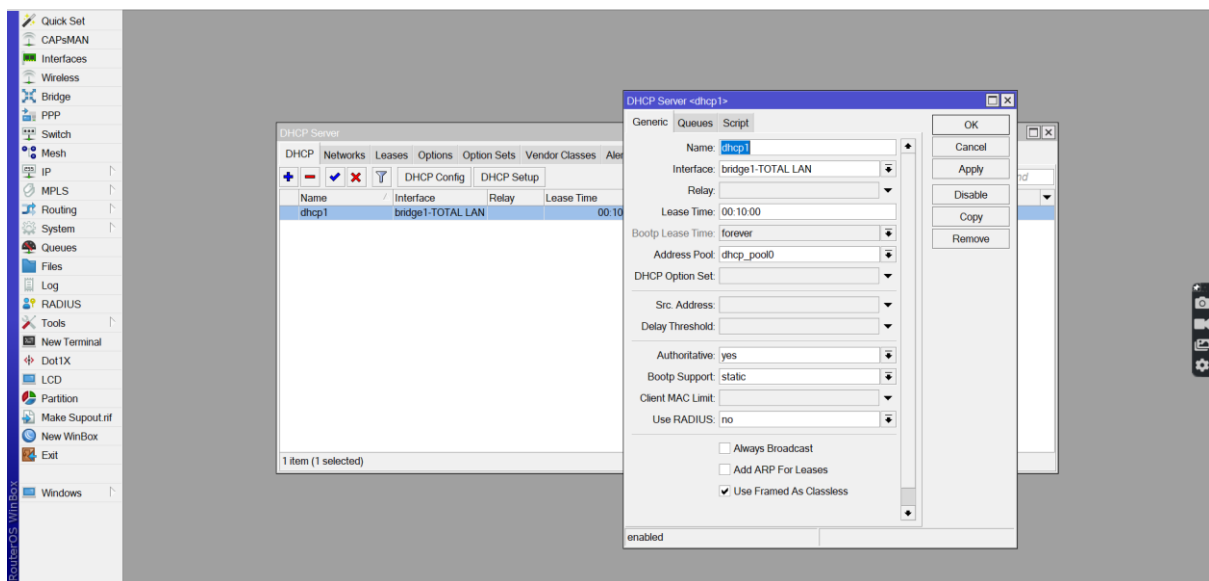


Figure - 3.4 : DHCP Server configure

3.3.5 NAT

Network Address Translation (NAT). That serves as the structure for moving information and data from neighborhood and private areas to a public one before it. Use Network Addresses Translation if you have too many devices to operate on one IP address. However, the best switches for homes or individuals may be the same.

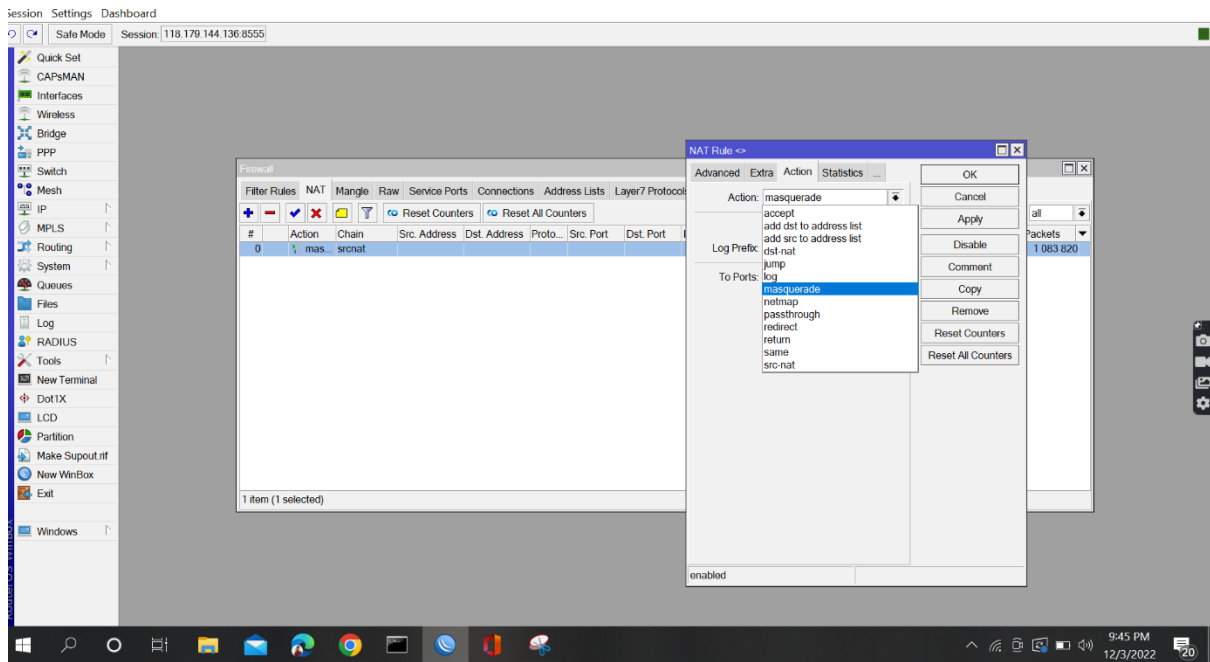


Figure – 3.5 : NAT Routing

3.3.6 Bridge Interface

Different connection points are required by Bridge Interface. merely one virtual connection point, along with the scaffold that supports those connections. It has that capacity. Every required interface connects to a real section. This piece is managed as a single unit.

A point of interaction can be added to a scaffold. We will first establish a framework for organizing the organization and then link another point of interaction, or extension. Join a different extension association after that. Taking everything into account, this activity selects the MAC location. Currently, the device's MAC address is added to the framework.

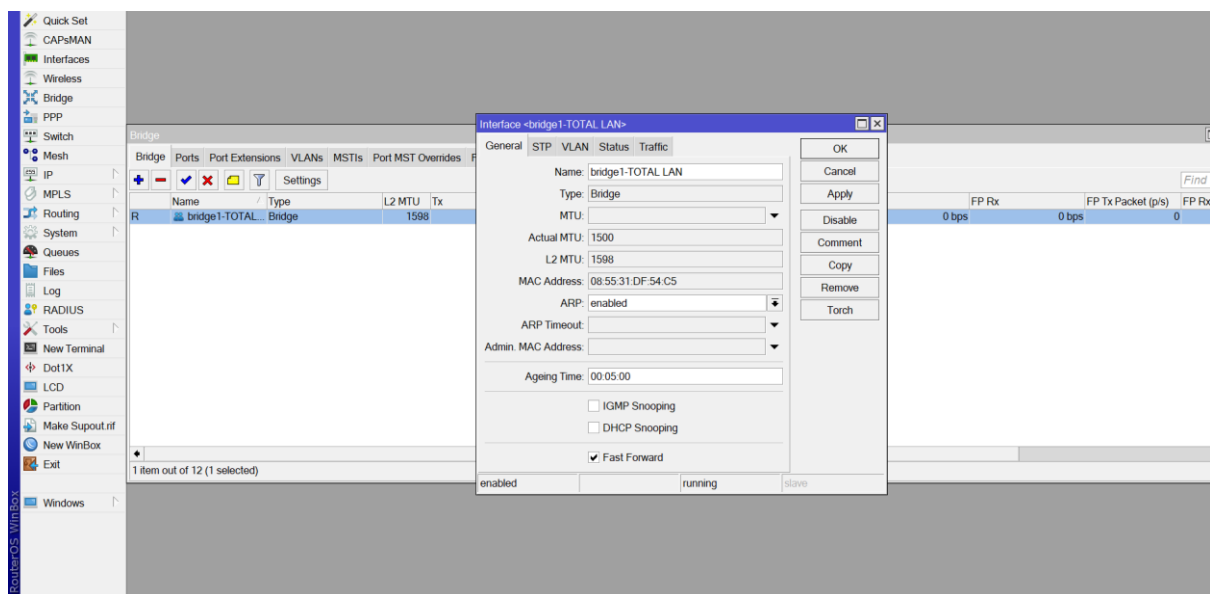


Figure – 3.6 : Bridge Interface

3.3.7 Concept of Bandwidth Control

Control over data transport capacity is equivalent to B/W (bandwidth) control. We are aware that the MikroTik switch has a number of peculiarities. While providing the appropriate ISP bandwidth management and dispersing Local Area Network (LAN) destinations. If I have 20 PCs and we accept or provide 50 MBPS of bandwidth from the ISP, how will I be able to provide bandwidth to every PC at that point?

As a result, keeping up with B/W technology is increasingly important, and the PC as a whole need information distribution.

The MikroTik switch is an incredible and powerful B/W observation tool. If we consider that, there are a lot of workers in an office, and each one need web bandwidth, however some don't require the highest bandwidth and some require it on a regular basis depending on their authority job.

Consider this issue, and after that, fix the bandwidth. We are able to distribute 20 PCs with 20 MB of bandwidth from the ISP. Each computer can receive 1024 kbps.

Some of them are unable to use legal bandwidth. Despite this, some clients do not really understand why B/W control is necessary. So, we'll now gradually demonstrate how to set up a MikroTik switch.

Configuration

Step - 1

At first on the win box software > Queues > simple Queues > click plus >

Name = queue1 > Target Address = 192.168.40.33

Target upload, Max Limit = 5mbps > Apply > Okay

Step - 2

Again on winbox > Queues > Simple Queues > Click plus >

Name = queue2 > Target Address = 192.168.40.43

Target upload, Max Limit = 3mbps

Target Download, Max Limit = 3mbps > Apply > Okay

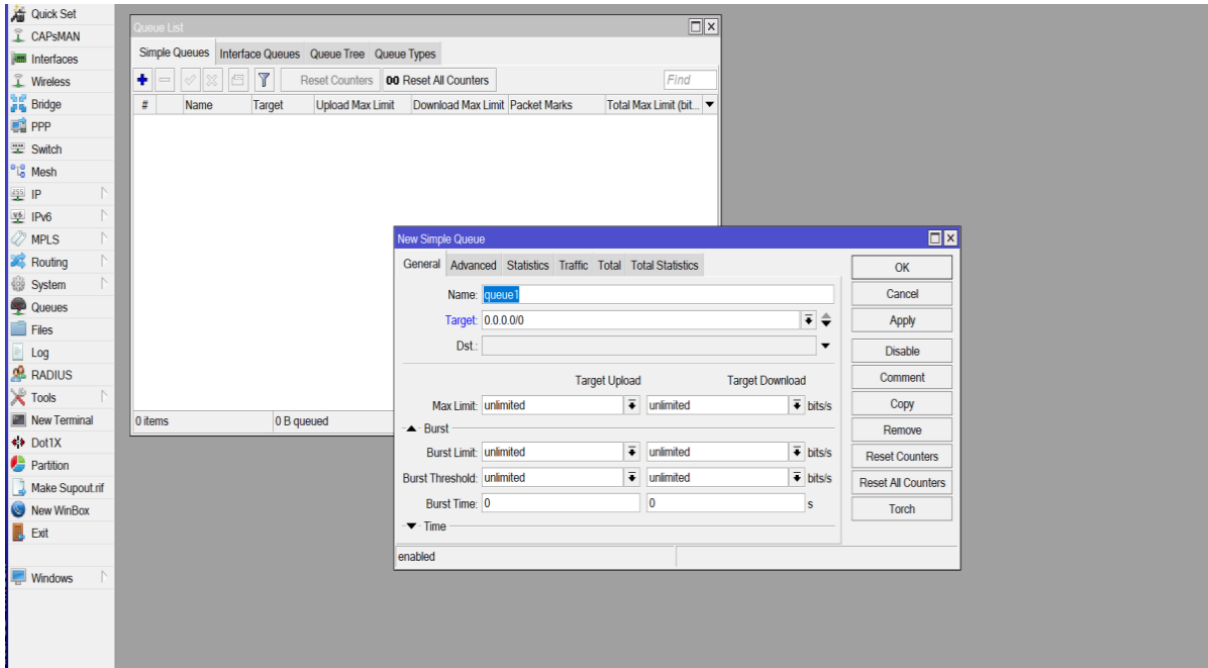


Figure - 3.7 : Bandwidth Control

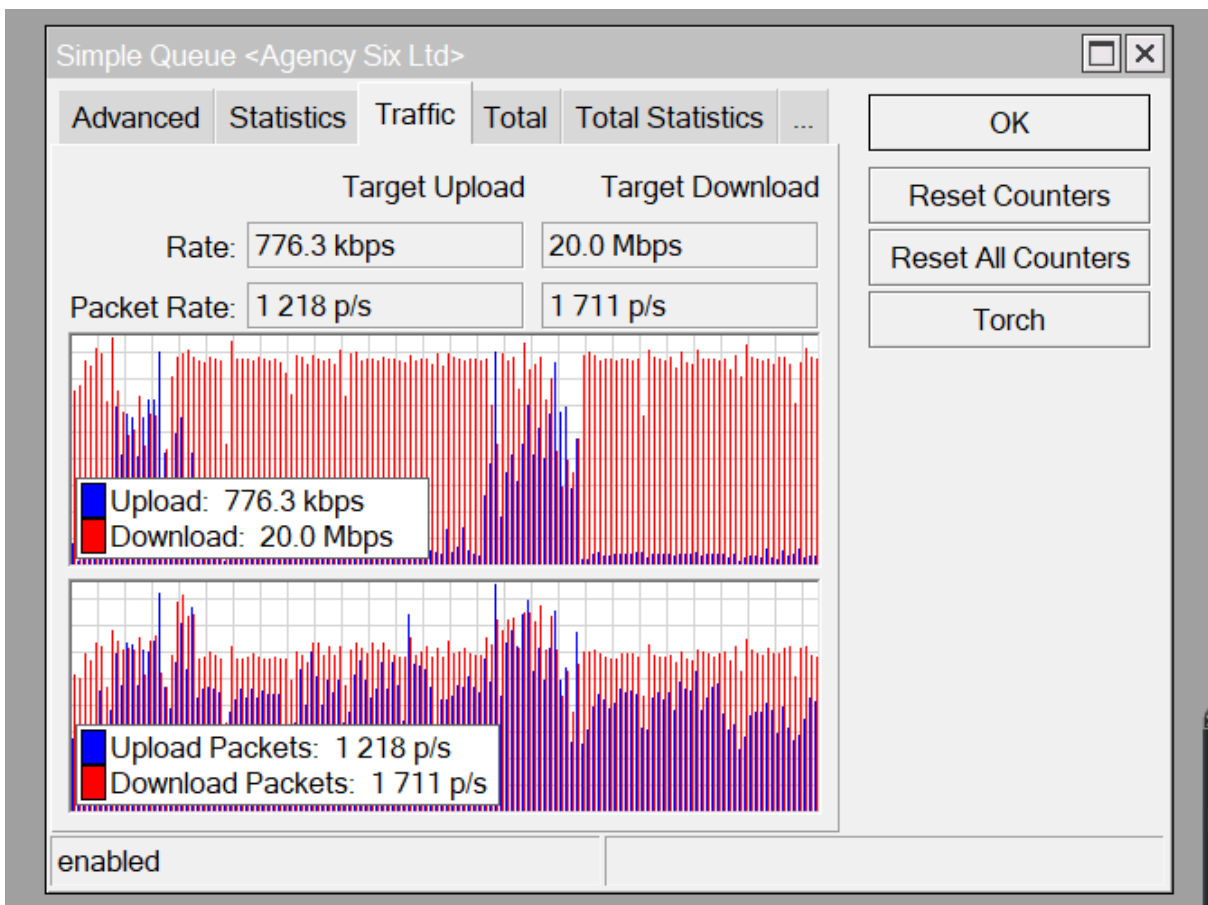


Figure - 3.8: Bandwidth uses Traffic

3.3.8 How to configure wireless router

The forwarding and routing of wireless network packets is made possible by a wireless router, which also acts as an access point for a local area network.

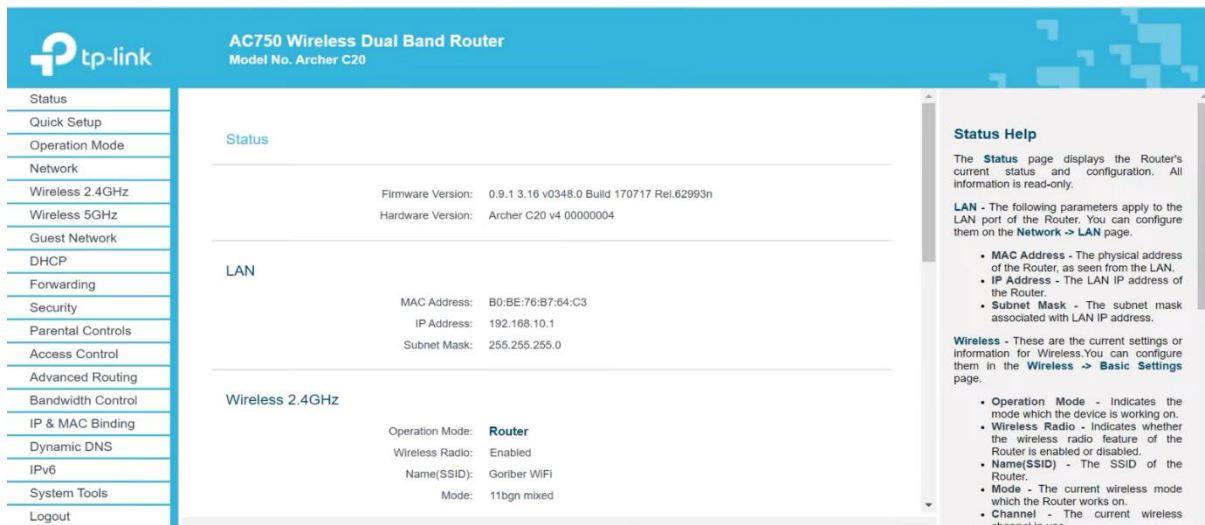


Figure - 3.9 : Wireless Router Configure

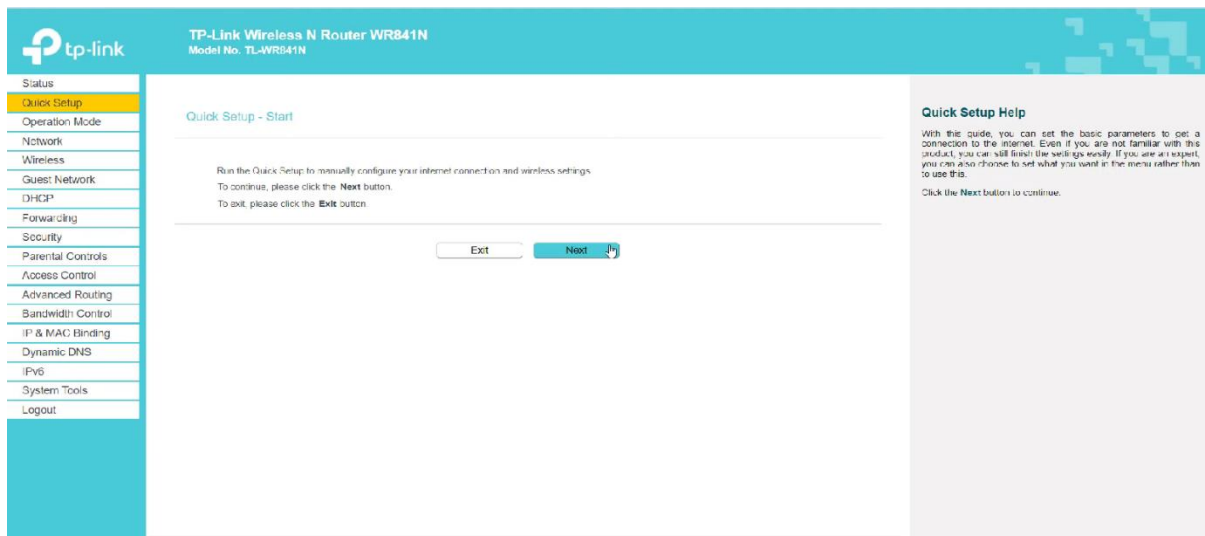


Figure 3.10: Wireless Router Configure

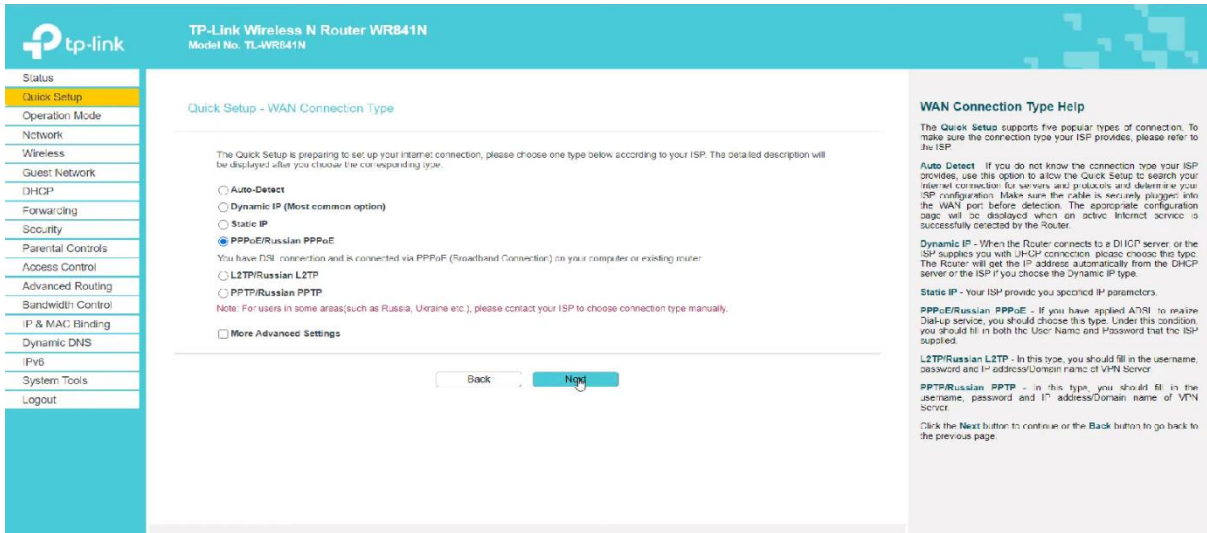


Figure 3.11: Wireless Router Configure

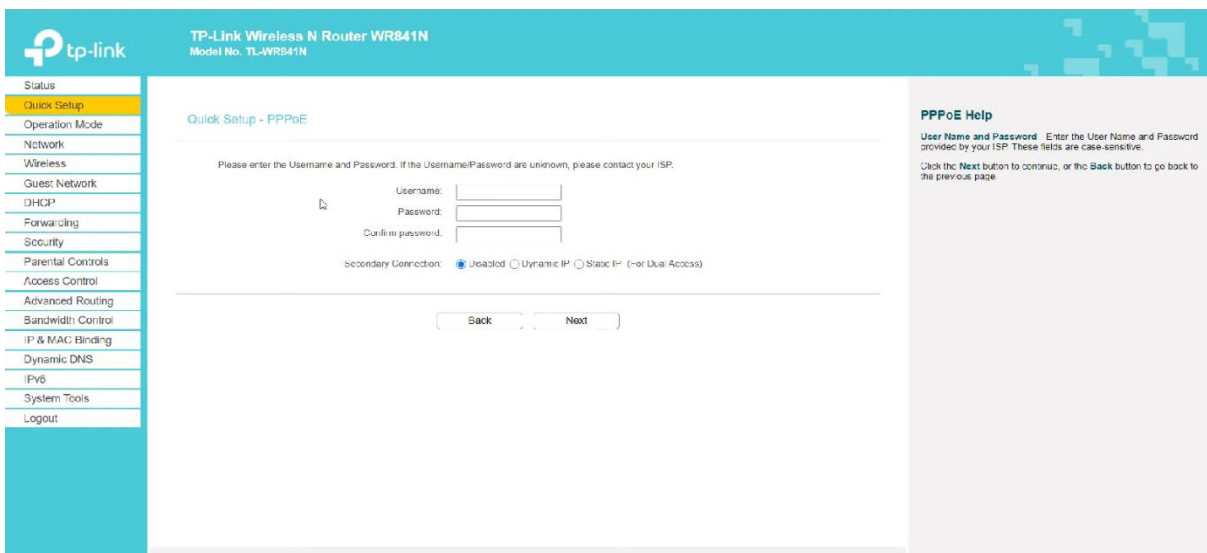


Figure 3.12: Wireless Router Configure

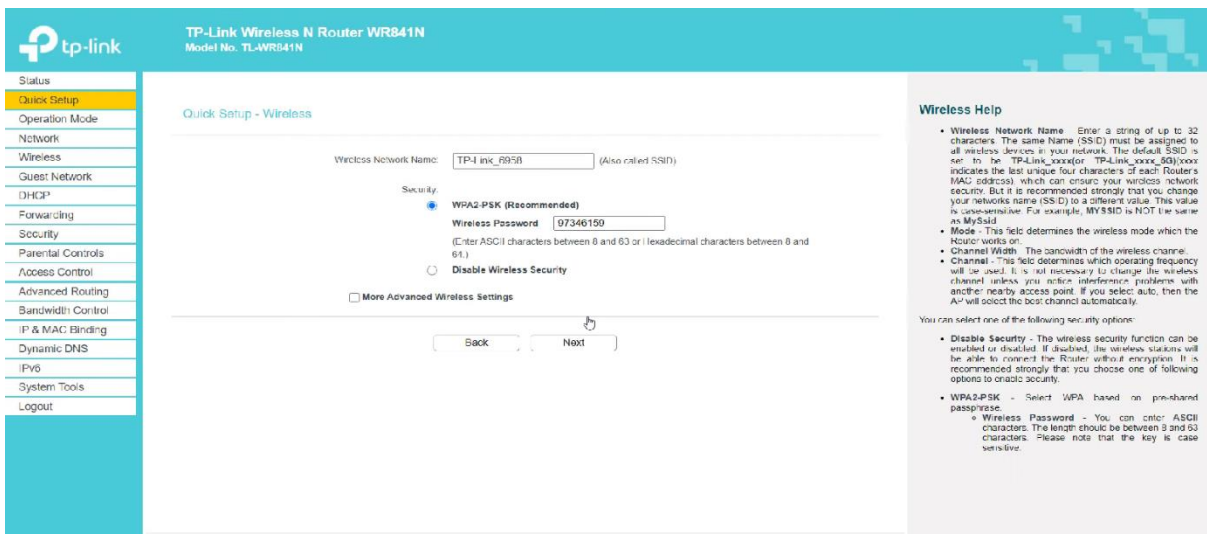


Figure 3.13: Wireless Router Configure

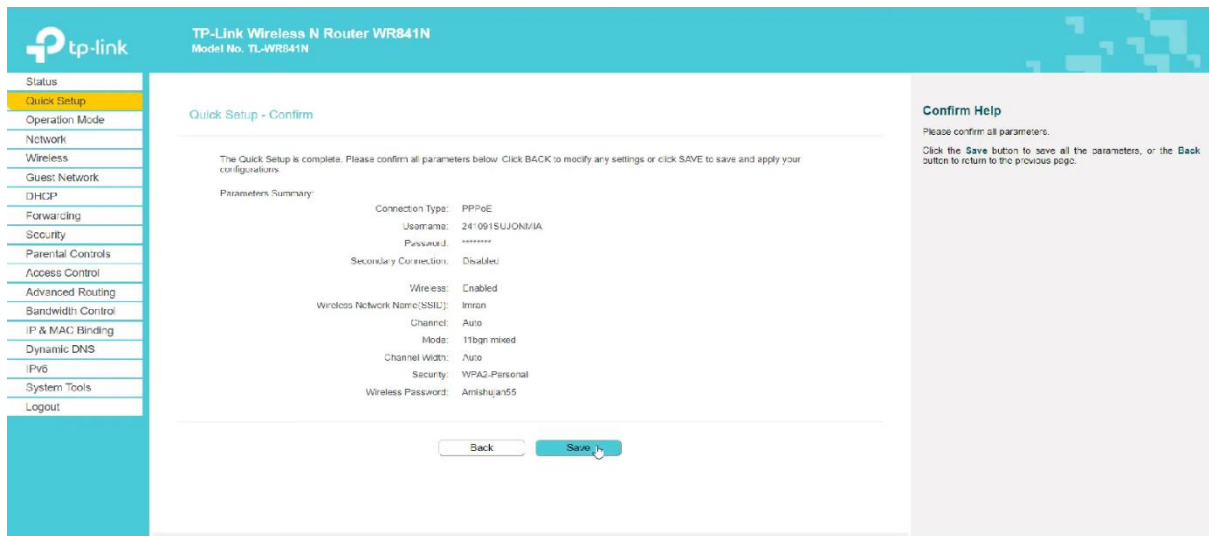


Figure 3.14: Wireless Router Configure

3.3.9 Ip address

A device on the internet or a local network can be identified by its IP address, which is a special address. The rules defining the format of data delivered over the internet or a local network are known as "Internet Protocol," or IP. IP addresses, which carry location information and make devices reachable for communication, are essentially the identifier that permits information to be exchanged between devices on a network. There must be a means for computers, routers, and webpages to be distinguished on the internet. IP addresses offer a method for achieving this and are crucial to how the internet functions.

Internet Protocol is referred to as "IP." There are currently two IP versions coexisting on the global Internet (IPv4 and IPv6). All data that needs to be routed via the Internet is driven by addresses, which are composed of binary. IPv6 addresses are 128 bits long compared to 32 bits for IPv4 addresses.

There will be a switchover from IPv4 to IPv6 for each of them. Although these two protocols are unable to communicate with one another directly, "dual stack" systems offer benefits for exchanging data across IPv4 and IPv6. The IP addressing of TCP/IP is the most crucial factor. That is expressed using dotted decimal notation. There are 4 octets and 4 dots (192.168.10.1). Each octet contains a number in the range of 0 to 255. Internet Protocol must be used for all communications. that uphold the Internet's global protocol.

Table 3.1: IP Address Classes

Class	First Octet decimal (range)	Address Range	Subnet Mask
Class A	0 To 127	0.0.0.0 – 127.255.255.255	255.0.0.0
Class B	128 To 191	128.0.0.0 – 191.255.255.255	255.255.0.0
Class C	192 To 223	192.0.0.0 – 223.255.255.255	255.255.255.0
Class D	224 To 239	224.0.0.0 – 239.255.255.255	N/A
Class E	240 To 255	240.0.0.0 – 255.255.255.255	N/A

3.3.10 Class - A Subnet Mask

IP - 20.0.0.0/10

Subnet Mask = 255.192.0.0

Block Size= $256 - 192 = 64$

Host = $2^{22} - 2 = 4,194,304 - 2$

Usable Host = 4,194,302

Table 3.2: Class-A IP Addresses

Network Address	Usable Host Range	Broadcast Address
20.0.0.0	20.0.0.1 - 20.63.255.254	20.63.255.255
20.64.0.0	20.64.0.1 - 20.127.255.254	20.127.255.255
20.128.0.0	20.128.0.1 - 20.191.255.254	20.191.255.255
20.192.0.0	20.192.0.1 - 20.255.255.254	20.255.255.255

IP - 25.0.0.0/11

Subnet Mask = 255.224.0.0

Block Size= $256 - 224 = 32$

Host = $2^{21} - 2 = 2,097,152 - 2$

Usable Host = 2,097,150

Table 3.3: Class-A IP Addresses

Network Address	Usable Host Range	Broadcast Address
25.0.0.0	25.0.0.1 - 25.31.255.254	25.31.255.255
25.32.0.0	25.32.0.1 - 25.63.255.254	25.63.255.255
25.64.0.0	25.64.0.1 - 25.95.255.254	25.95.255.255
25.96.0.0	25.96.0.1 - 25.127.255.254	25.127.255.255
25.128.0.0	25.128.0.1 - 25.159.255.254	25.159.255.255
25.160.0.0	25.160.0.1 - 25.191.255.254	25.191.255.255
25.192.0.0	25.192.0.1 - 25.223.255.254	25.223.255.255
25.224.0.0	25.224.0.1 - 25.255.255.254	25.255.255.255

3.3.11 Class - B Subnet Mask

IP – 172.32.0.0/20

Subnet Mask = 255.255.240.0

Block Size= 256 – 240 = 16

Host = $2^{12} - 2 = 4,096 - 2$

Usable Host = 4,094

Table 3.4 : Class-B IP Addresses

Network Address	Usable Host Range	Broadcast Address
172.32.0.0	172.32.0.1 - 172.32.15.254	172.32.15.255
172.32.16.0	172.32.16.1 - 172.32.31.254	172.32.31.255
172.32.32.0	172.32.32.1 - 172.32.47.254	172.32.47.255
172.32.48.0	172.32.48.1 - 172.32.63.254	172.32.63.255
172.32.64.0	172.32.64.1 - 172.32.79.254	172.32.79.255
172.32.80.0	172.32.80.1 - 172.32.95.254	172.32.95.255
172.32.96.0	172.32.96.1 - 172.32.111.254	172.32.111.255
172.32.112.0	172.32.112.1 - 172.32.127.254	172.32.127.255
172.32.128.0	172.32.128.1 - 172.32.143.254	172.32.143.255
172.32.144.0	172.32.144.1 - 172.32.159.254	172.32.159.255
172.32.160.0	172.32.160.1 - 172.32.175.254	172.32.175.255
172.32.176.0	172.32.176.1 - 172.32.191.254	172.32.191.255
172.32.192.0	172.32.192.1 - 172.32.207.254	172.32.207.255
172.32.208.0	172.32.208.1 - 172.32.223.254	172.32.223.255
172.32.224.0	172.32.224.1 - 172.32.239.254	172.32.239.255
172.32.240.0	172.32.240.1 - 172.32.255.254	172.32.255.255

IP – 190.60.0.0/23

Subnet Mask = 255.255.240.0

Block Size= $256 - 254 = 2$

Host = $2^9 - 2 = 512 - 2$

Usable Host = 510

Table 3.5: Class-B IP Addresses

Network Address	Usable Host Range	Broadcast Address
190.60.0.0	190.60.0.1 - 190.60.1.254	190.60.1.255
190.60.2.0	190.60.2.1 - 190.60.3.254	190.60.3.255
190.60.4.0	190.60.4.1 - 190.60.5.254	190.60.5.255
190.60.6.0	190.60.6.1 - 190.60.7.254	190.60.7.255
190.60.8.0	190.60.8.1 - 190.60.9.254	190.60.9.255
190.60.10.0	190.60.10.1 - 190.60.11.254	190.60.11.255
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.....
190.60.244.0	190.60.244.1 - 190.60.245.254	190.60.245.255
190.60.246.0	190.60.246.1 - 190.60.247.254	190.60.247.255
190.60.248.0	190.60.248.1 - 190.60.249.254	190.60.249.255
190.60.250.0	190.60.250.1 - 190.60.251.254	190.60.251.255
190.60.252.0	190.60.252.1 - 190.60.253.254	190.60.253.255
190.60.254.0	190.60.254.1 - 190.60.255.254	190.60.255.255

3.3.12 Class - C Subnet Mask

IP – 192.170.0.0/25

Subnet Mask = 255.255.255.128

Block Size= 256 – 128 = 128

Host = $2^7 - 2 = 128 - 2$

Usable Host = 126

Table 3.6: Class-C IP Addresses

Network Address	Usable Host Range	Broadcast Address
192.170.0.0	192.170.0.1 - 192.170.0.126	192.170.0.127
192.170.0.128	192.170.0.129 - 192.170.0.254	192.170.0.255

IP – 194.180.0.0/26

Subnet Mask = 255.255.255.192

Block Size= 256 – 192 = 64

Host = $2^6 - 2 = 64 - 2$

Usable Host = 62

Table 3.7 : Class-C IP Addresses

Network Address	Usable Host Range	Broadcast Address
194.180.0.0	194.180.0.1 - 194.180.0.62	194.180.0.63
194.180.0.64	194.180.0.65 - 194.180.0.126	194.180.0.127
194.180.0.128	194.180.0.129 - 194.180.0.190	194.180.0.191
194.180.0.192	194.180.0.193 - 194.180.0.254	194.180.0.255

IP – 192.180.0.0/27

Subnet Mask = 255.255.255.224

Block Size= 256 – 224 = 32

Host = $2^5 - 2 = 32 - 2$

Usable Host = 30

Table 3.8 : Class-C IP Addresses

Network Address	Usable Host Range	Broadcast Address
192.180.0.0	192.180.0.1 - 192.180.0.30	192.180.0.31
192.180.0.32	192.180.0.33 - 192.180.0.62	192.180.0.63
192.180.0.64	192.180.0.65 - 192.180.0.94	192.180.0.95
192.180.0.96	192.180.0.97 - 192.180.0.126	192.180.0.127
192.180.0.128	192.180.0.129 - 192.180.0.158	192.180.0.159
192.180.0.160	192.180.0.161 - 192.180.0.190	192.180.0.191
192.180.0.192	192.180.0.193 - 192.180.0.222	192.180.0.223
192.180.0.224	192.180.0.225 - 192.180.0.254	192.180.0.255

3.4 Challenges

During my internship, I ran into a few obstacles. First off, I've never worked before, and I have no prior experience in this field. This is therefore my first time entering the workplace. Lack of colleagues willing to share their experience and mentor me as a novice is one of the challenges I have had to deal with. My manager was out of the office the day I started working for the company, and no one in my department was available to give me an overview of the company and my department as well as my job's responsibilities.

Only one other intern was given the task of helping me and giving me a quick explanation of her tasks because her internship was about to finish in the coming days. Since the staff members are frequently unavailable and so aren't accessible to interns for requests for clarification, I have to pick everything up quickly and figure things out on my own. The university provides recommendations so that you know what to do and how to accomplish it, but this situation is different.

CHAPTER 4

COMPETENCIES AND SMART PLAN

4.1 Competencies Earned

Today, there are countless opportunities on the job market to learn new skills. This temporary work has demonstrated to me the core knowledge of my certificate-related topics and certain skills necessary for my future career. It helps me maintain mental calm as the workload increases. I have learned how to present and design switches and switches, set up DHCP, NAT, and VLAN in this entry-level position.

- Setting up a MikroTik router
- Troubleshooting computer and network issues with clients; and identifying and resolving issues with wireless infrastructure.
- Keeping an eye on the company's and customers' networks.
- Engaging in a series of interactions with clients either in person or over the phone to address problems.
- Configuring Various Network Devices for Customers
- Wi-Fi router installation and configuration of any kind

4.2 Smart Plan

My understanding of systems administration has increased as a result of working on this temporary job application, and I am growing more certain and assured that I could work in the field of systems administration. Later on, recalling the course's core concepts will be helpful.

me with ensuring my place in the workforce. The lessons I learned will be very helpful to me moving forward as I continue to research organizations. I chose to organize as my justification since it is very well-liked everywhere in the world, including Bangladesh. I'll develop myself as an organizational engineer in the future.

CHAPTER 5

CONCLUSION AND FUTURE CAREER

5.1 Discussion and Conclusion

After completing my internship program, I learned more about IT engineering careers. I was able to learn more about the definition of an IT specialist during my internship and become ready to work as a responsible programmer and technologist in the future. I've learned during my training that observation is crucial to identifying a problem's underlying causes. The project also indirectly fosters my abilities to learn on my own initiative, practice self-discipline, be diligent and patient, be self-assured, take initiative, and think creatively.

Additionally, speaking with people helps me to improve my communication abilities.

When I made mistakes during my training, engineers corrected me and gave me advice.

5.2 Scope for Further Career

PC organizing is a field that is currently overly sought-after for employment. There are many IT locale zones. Computer organization is one of the key aspects. Every office, bank, or association of businesses needs at least one well-known IT subject matter expert. So, for an organization engineer, that is even another useful piece of information. In each place, a skilled representative is welcomed. A successful career will require more time to advance in daily life. I need to advance my career in that area.

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APPENDICES

Appendix A: Internship Reflection

My internships helped me develop a wide range of abilities, including how to engage with clients and provide customer service.

How to locate the client's issue, how to address it, how to collaborate with the team.

I am familiar with working in the business sector and can configure any MikroTik router as well as any Wi-Fi router.

An innovative approach, strategies to enlist allies, means of increasing resources, some excellent information work on the best way to coordinate, and how to make decisions.

The environment of the exchange undertaking, the association's commitments, and the feedback internship Happy sewing by my chief at my entry-level position. a tool for evaluation and a pleasurable way to look for private meetings Guess a professional.

Appendix B: Company Details

Amber IT Limited One of the greatest ISPs in Bangladesh, Amber IT has grown significantly since its founding in 1997 and now serves about 4000 customers. Amber IT offers a variety of services, including corporate internet, IP telephone, home internet, radio link, hosting web development, and mail domains.

Head Office



Amber IT Limited

Located in Navana Tower

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Hours: Open . Closes 6PM

Phone: 09611-123123

Website : www.amberit.com.bd

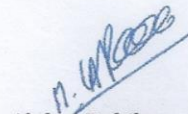
December 29, 2022

To Whom It May Concern

This is to certify that Mr. Jickrul Hasnat Emon has completed his Internship at **AMBER IT LIMITED** under system department. His duration of internship was 2nd July, 2022 to 1st October, 2022.


During his time with Amber IT Limited, he has remained dedicated and loyal to his work and responsibilities.


We wish him every success in life.




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