

B.Sc. in Computer Science and Engineering

Internship Report on ISP Setup and Mikrotik Router Configuration

Submitted by

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Dhaka, Bangladesh

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Candidate's Declaration

This is to certify that the presented report of internship titled “Internship Report on ISP Setup and Mikrotik Router Configuration” of “OneSky Communication limited S.A Bhaban, 115/23 Motijheel Circular Road Dhaka-1000, Bangladesh” is uniquely prepared by me after the completion of three months' work.

I also confirm that the report is only prepared for my academic requirement, not for any other purpose. It might not be used with the interest of the opposite party of the corporation.

Abrar Wasi

173120004

Commercial Certification



Date: 22 July, 2022.

TO WHOM IT MAY CONCERN:

One Sky Communications Ltd is a company dedicated in providing nationwide corporate Internet, and Data Connectivity through Optical Fiber.

Full Name: Abrar Wasi Alif

Student ID: 173120004

Batch: CSE - 06

Department: Computer Science and Engineering

Notre Dame University Bangladesh

Has successfully completed Three months Intern in our ISP.

In this Training period he has worked practically on WAN, LAN Configure With DHCP-Server, PPPoE Server, Hotspot Server. Dedicated Bandwidth, Shared Bandwidth Control, Extra high speed on YouTube, Facebook, BDIX, SpeedTest site, Day, Night Package (peak, Off-peak), MAC bind (restriction), Graph Create and View, Backup file create and restore. IP, Subnet, IP range, Usable IP calculation with easy method, VPN Server and Client Configure (Layer3 Data Connectivity) Router Security Configure, Auto Backup file sending schedule to the email address as an attachment, Web site block for some users, Browsing log of users storing in remote PC, and much more.

He was sincere, honest and hardworking within this training period. He seems to me as talented, creative, self-motivated IT person. I wish him the best of luck.

Thanking you,

A handwritten signature in black ink, appearing to read "A.K.M Jahangir".

A.K.M Jahangir

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Academic Certification

This internship report titled, "**Internship Report on ISP Setup and Mikrotik Router Configuration**", submitted by the student as mentioned below has been accepted as satisfactory in partial fulfillment of the requirements for the degree B.Sc. in Computer Science and Engineering in August 2022.

Student Name:

Abrar Wasi

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First and foremost, I want to express my sincere gratitude to **Allah (swt)** for everything. I, **Abrar Wasi**, with the **ID: 173120004**, prepared this internship report for the Department of Computer Science Engineering at Notre Dame University Bangladesh.

I want to thank my supervisor, **Humayara Binte Rashid**, a lecturer at Notre Dame University Bangladesh's Department of Computer Science Engineering. My supervisor gave me a lot of time and effort to complete the internship program.

I also like to thank OneSky Communication Limited's deputy managing director, **A.K.M. Jahangir**. I can't finish my company internship training without his help.

I would like to express my gratitude to my fellow faculty members at the NDUB CSE department for their kind assistance in completing my internship.

Last but not least, I must respectfully recognize my parents' unwavering support and motivation.

Executive Summary

One of the most well-liked routers for any ISP network is the **MikroTik Router**. Numerous networking features on this router make it easier to build a reliable and intelligent network. It is said that an ISP company or an enter workplace cannot function without a MikroTik router for even one day.

Winbox is used to install the MikroTik Router. This system is tested after full service implementation to ensure that it functions successfully. In order to give users better performance in the future, I need to upgrade the central configuration system.

The best thing about a constructed network is that it may provide AN ISP with a number of convenient services, like scientific discipline telephone services, vehicle tracking systems, fuel restoration, and engine shutoff. The billing area of the MikroTik router makes IP user sharing and maintenance simple. If the billing section is not updated once a month, the server will automatically disconnect from the internet. Overall now a days this sector growing really fast and effective in our country.

Contents

<i>Candidate's Declaration</i>	i
<i>Commercial Certification</i>	ii
<i>Academic Certification</i>	iii
<i>Acknowledgements</i>	iv
<i>Executive Summery</i>	v
<i>List of Figures</i>	x
1 Introduction	1
1.1 Background Of The Study	1
1.2 Origin Of The Report	1
1.3 Scope Of The Study	2
1.4 Objectives Of The Report	2
1.5 Book Organization	3
2 Organization	4
2.1 Introduction Of The Organization	4
2.2 History Of Organization	5
2.3 Product And Market Condition	5
2.3.1 Corporate Internet	5
2.3.2 Bandwidth	5
2.3.3 Broadband	6
2.3.4 Network Solution	6

2.3.5	Wi-Fi Hotspot	6
2.3.6	Video Surveillance	6
2.3.7	Sky Tracker	6
3	Activities, Tasks, and Project	7
3.1	My Daily Task & Activities	7
3.1.1	Basic of Networking	7
3.1.2	Mikrotik Router Configuration	8
3.2	My Project Task & Activities	8
3.2.1	About Network Components and Router	8
3.2.2	Switch	9
3.2.3	Fiber Optic	10
3.2.4	Media Converter	11
3.2.5	About IP Address	11
3.2.6	About Mikrotik Router	11
3.2.7	Configuration of Mikrotik Router	12
3.2.8	Configure WAN with Static IP	12
3.2.9	Configure WAN with DHCP	13
3.2.10	Configure WAN with ISP Given PPPOE Username and Password	14
3.2.11	Configure LAN with Static IP	14
3.2.12	Configure LAN with DHCP	15
3.2.13	Configure LAN with PPPOE Username and Password	16
3.2.14	Check Your Internet Connected Successfully	18
3.2.15	Hotspot Configuration	18
3.2.16	Control Bandwidth Priority to Dedicated/ VIP Client	20
3.2.17	Control Day and Night Package	21
3.2.18	View Client Consumption Graph	21
3.2.19	Create Winbox Login User Read/ Write/ Full Power	22
3.2.20	Configure Bridge with WiFi Password	23
3.2.21	Client VLAN Setup	26
3.2.22	Client Line Block	28
3.2.23	Router Backup and Restore	28

4 Learning Experiences	30
4.1 Knowledge Acquired	30
4.1.1 ISP	30
4.1.2 Advance Router Configuration	31
4.2 Skill Learn	31
4.2.1 Communication Skills	31
4.2.2 Organizing Abilities	32
4.2.3 Networking	32
4.2.4 Problem Solving	32
5 Conclusion	33
5.1 Upcoming Career and Scope	33
5.2 Conclusion	33
References	34

List of Figures

2.1 One Sky Logo	5
3.1 Router	9
3.2 Network Layout	9
3.3 Switch	10
3.4 Fiber Optic	10
3.5 Media Converter	11
3.6 Winbox Login	12
3.7 Configure WAN with Static IP	13
3.8 Configure WAN with DHCP	13
3.9 Configure WAN PPPOE username and Password	14
3.10 Configure Lan with Static Ip	15
3.11 Configure Lan with DHCP	15
3.12 Configure Lan PPP setup	16
3.13 Configure Lan Profile setup	17
3.14 Configure Lan PPPOE name and Password setup	17
3.15 Check your internet connected successfully with terminal	18
3.16 Setup Hotspot	19
3.17 Setup Hotspot	19
3.18 Setup Hotspot	20
3.19 Control Client Bandwidth	20
3.20 Control Day and Night Package	21
3.21 View Client Consumption Graph	22
3.22 Create Winbox User	22

3.23 Give winbox user read, write and full power	23
3.24 Bridge Setup	24
3.25 Bridge Setup	25
3.26 Bridge Setup	25
3.27 Bridge Setup	25
3.28 VLAN basic configuration	26
3.29 Add peering IP on VLAN	27
3.30 Add peering IP on VLAN	27
3.31 Add self-Information	27
3.32 Client Line Block	28
3.33 Router Backup	29
3.34 Router Restore	29

Chapter 1

Introduction

At the present time, people like to understanding the Internet as a cloud. Our country Bangladesh, is a developing country and the internet has increased significantly. At first, we used dial-up internet. But now in our country broadband internet users are quickly increasingly. This broadband internet is not spread in every corner in our country [1]

1.1 Background Of The Study

The Institute of Notre Dame University Bangladesh requires all students enrolled in programs leading to a bachelor's degree in computer science and engineering (BSc in CSE) to complete an internship program of at least one month's duration with a reputable national or international organization. Based on the student's theoretical and practical learning while working for the organization, the Institute expects an internship report.

Being a student of CSE (Hons), I completed my internship at OneSky Communication Ltd in order to meet this academic requirement.

1.2 Origin Of The Report

The CSE curriculum offered by Notre Dame University Bangladesh includes practical orientation and organizational performance evaluation. The requirement for that Practical Orientation is this report. All of this university's CSE students are required to participate in an internship program in order to get practical knowledge of the contemporary corporate environment. An organizational attachment period of at least one month is covered under the program. Each

student is required to produce an internship report detailing the tasks completed and lessons acquired throughout the internship program.

1.3 Scope Of The Study

I have emphasized in my report the numerous ISP and network knowledge processes used by OneSky Communication Ltd. I also gather knowledge about Mikrotik Router and Configuration. Before that, a quick summary of OneSky Communication Ltd's business and activities has been provided. Consequently, the report's scope includes a thorough understanding of OSCL's organizational structure. Through my experience during my internship, I have attempted to examine and comprehend the operations of the organization's Networking department.

1.4 Objectives Of The Report

The study's major goal is to gain knowledge of the practical organizational activities and compare them to the theoretical information learned from profit- and nonprofit-making organizations.

In addition to these, there are the following specific goals:

- To give an overview of OneSky Communication Ltd.
- To focus on Network department of the organization.
- To gather knowledge about the functions of Network department of the organization.
- To understand Knowledge of network testing, debugging and troubleshooting.
- To setup Router configuration.
- To setup Basic Configuration of Mikrotik Router.
- To connect academic knowledge with practical experience.
- To learn about good work ethics.

1.5 Book Organization

There are five chapters in the book.

Chapter 1 provides an overview of the purpose, justification, goals, and methods of this study.

Chapter 2 discusses an overview of the organization, including its mission, vision, objectives, services, and organizational structure. In this part is a collection of the organization's general data.

The internship program is the focus of the chapter 3 , which is the primary chapter. In this section, I listed the tasks and duties I've held within the company along with some insightful thoughts.

In chapter 4 contains the conclusion and recommendations. Here, I highlighted some of that organization's findings and then offered some suggestions for how to address them.

Last but not least, In chapter 5 I listed the places where I got all of my information.

Chapter 2

Organization

2.1 Introduction Of The Organization

More quickly than ever, the world around us is changing. A company's ability to quickly collect, process, and analyze data, as well as its agility in using that data to make decisions, are crucial to today's business success. It is really competitive out there now a days. Companies are searching for strong communication infrastructure, effective and affordable software solutions, and new technologies and devices that will offer us an edge in order to keep up with the frenzied pace of this evolving, digital world. In this digital world lots of technology are invented every moment. With our digital technology we can reach any sector with no time. Automate our procedures, make our business more efficient, and devote more of our time to strategic planning than troubleshooting. Make it productive. Make it count.

As a prominent Internet service provider in Bangladesh, OneSky's purpose is to advocate for the expansion of internet connectivity and data communication by providing high-quality information and communication technology services at competitive prices for all Bangladeshi. In future this sector will be one of the top sector in this sector and overall in the industry. [2]

2.2 History Of Organization

Since 2015, OneSky Communications Limited (OSCL) 2.1 is a team of outstanding engineers and designers with a diverse set of experience, who boast a track record of fast turnaround time, and ingenious solutions for today's high-demand clients. OneSky is well positioned to serve its clients with a comprehensive solution.



Figure 2.1: One Sky Logo

2.3 Product And Market Condition

Now a time we need some product for make it happen and we need to know the market condition and value in thus sector. I am giving some useful product for currently using in this sector. Here in this section I am giving Product and Market condition.

2.3.1 Corporate Internet

They assist their clients in addition to providing broadband internet services. Giving access to corporate Internet. By giving access of internet they are earning good quality money.

2.3.2 Bandwidth

To provide redundancy and dependability for their connection, they maintain connections to numerous upstream providers. This is one of the major and basic product use in this sector.

2.3.3 Broadband

Networks offer the simplest, most effective network and message response available in Dhaka for business office networks.

- Corporate Internet resolution.
- Domains register and web hosting.
- Hi-speed Wi-Fi Zone.
- Proxy and DNS Server resolution, Mail Server resolution.
- Skilled route and training.
- Data Connectivity, Data interior and Co-Location.

2.3.4 Network Solution

They can assist their client in designing, constructing, and maintaining their IT network infrastructure with their office network solutions and services.

2.3.5 Wi-Fi Hotspot

These days, a WiFi hotspot is required in any location where patrons are anticipated to spend a certain amount of time.

2.3.6 Video Surveillance

A video surveillance system is now considered necessary in any commercial building, with or without other security measures.

2.3.7 Sky Tracker

Wherever their client are, they can track, monitor, and control their vehicle at any time via smartphone or PC with Sky Tracker, a GPS-based vehicle tracking system that can be used with any sort of vehicle (car, bus, truck, motorcycle, and C.N.G. driven auto-rickshaw).

Chapter 3

Activities, Tasks, and Project

3.1 My Daily Task & Activities

I have divided my daily task and activities into two part. At first at the starting first two month at Basic of Networking and then in month three I gather knowledge at Mikrotik Router Configuration.

3.1.1 Basic of Networking

Months 1 and 2 of my internship at "One Sky Communication Limited" allowed me to learn and do the following tasks:

- About ISP Network.
- About Network Components.
- Basic of Router.
- Basic of Switch.
- Fiber Optic.
- Media Converter.
- About IP address.

3.1.2 Mikrotik Router Configuration

During month three, I learned and completed the following tasks:

- Introduction of Mikrotik Router.
- Install Mikrotik Router OS using winbox.
- Configuration of Mikrotik Router.
- Configure ISP link.
- Configure WAN Lan Network.
- Bandwidth Control in different ways.
- Bridge mode configure.
- Firewall NAT configure.
- Day Night package control.
- Control Bandwidth priority to dedicated client.
- Router Backup Restore.

3.2 My Project Task & Activities

3.2.1 About Network Components and Router

A network equipment seen in figure 3.1 is a router. Data packets are forwarded between computer networks via it. This information is transmitted via email and websites on the internet. Two or more data lines from distinct IP networks are connected to the router. When a data packet enters one of the lines, the router reads it; the network address information then establishes the destination. The following network packet is then directed using the information from the routing policy. [3]



Figure 3.1: Router

A router is a device that connects various computer networks using wired or wireless connections, as shown in Figure 3.2. It is part of the OSI reference model's network layer. Networks have the ability to accept, examine, direct traffic, and forward data packets from one network to another.

Routers are widely used to connect networks with the same type of hardware as well as networks with various types of gear. A collection of smaller LANs connected by routers has a number of highly desirable advantages over a single large LAN.

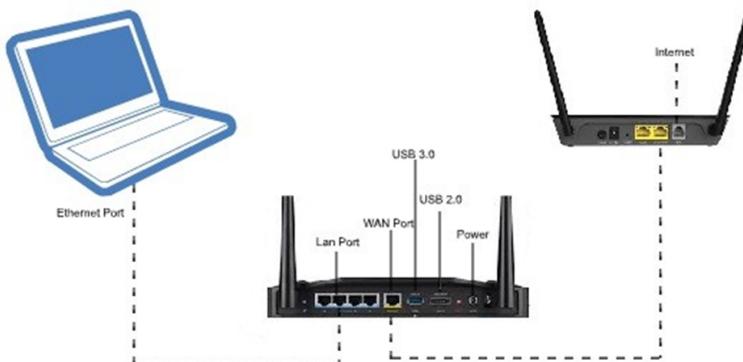


Figure 3.2: Network Layout

3.2.2 Switch

A switch is a piece of network gear used in computer networks to connect devices. Figure 3.3 shows a multiport network bridge. At the data link, data is forwarded using the MAC address, and some switches also have routing functionality.

Switches are one of the additional devices that enable us to connect multiple PCs. The method by which the switch translates the IP address of packets traveling across the internet is known as NAT (Network Address Translation) in other systems. [4]



Figure 3.3: Switch

3.2.3 Fiber Optic

Fiber optics, often known as glass fiber, is the term used to describe the technology used to transmit data as light pulses via a glass or plastic fiber, as seen in Figure 3.4.

These glass fibers can be found in varying numbers in a fiber optic cable, up to one or two hundred. Another glass layer known as the protective coating is located near to the optical fiber core. The protective covering is shielded by a layer known as a buffer tube, and the jacket layer serves as the final layer of defense for each individual strand. [5]



Figure 3.4: Fiber Optic

3.2.4 Media Converter

Figure 3.5 depicts a networking equipment called a media converter. Ethernet protocols are transparently converted by MC from one cable type, often copper UTP to fiber. In order to extend the length of the cable and improve immunity to electromagnetic interference, MC are frequently used in pairs to insert a fiber segment into copper networks. They can also convert link speeds, extend LANs, and use fiber modes. [6]



Figure 3.5: Media Converter

3.2.5 About IP Address

A device on the internet or a local network can be identified by its IP address, or Internet Protocol address. The rules defining the format of data delivered over the internet or a local network are known as "Internet Protocol," or IP. An IP address is used A 32-bit number is how the Web Protocol form 4 (IPv4) describes an IP address. However, a new IP version (IPv6), using 128 bits for the IP address and published as RFC 2460, was created in response to the expansion of the Internet and the exhaustion of IPv4 addresses. Since the middle of the 2000s, IPv6 has been organized, and IP addresses are typically written and shown in understandable texts, such as 172.16.254.1 in IPv4 and 2001:db8:0:1234:0:567:8:1 in IPv6. [7]

3.2.6 About Mikrotik Router

A Latvian firm named MikroTik was established in 1996 with the goal of creating routers and wireless ISP systems. In most nations throughout the world, MikroTik currently offers hardware and software for Internet connectivity.

3.2.7 Configuration of Mikrotik Router

Connect the Mikrotik to your computer first, then launch the Winbox program from your PC, as shown in Figure 3.6.

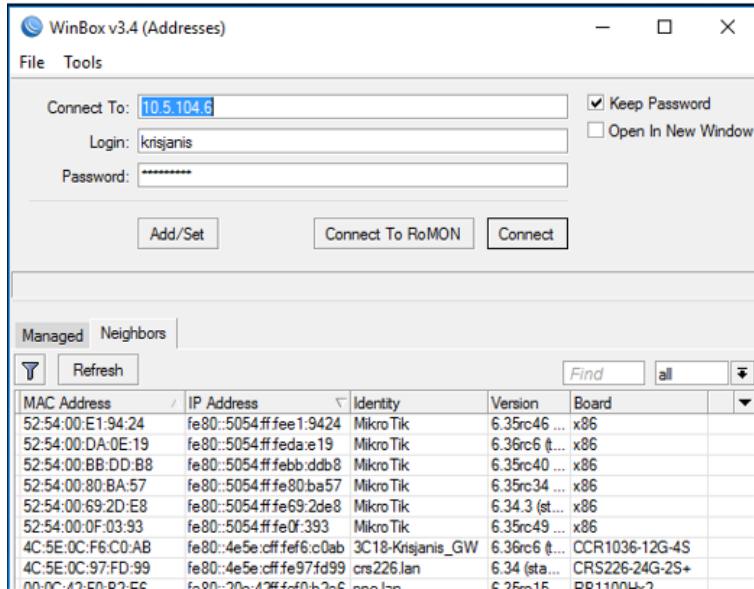


Figure 3.6: Winbox Login

3.2.8 Configure WAN with Static IP

- Go to IP
- Select Address
- Add ISP given Ip address (Ex: 202.191.126.156/30)
- Go to Interface and Connect ISP cable.
- Add Gateway Address.
- Add DNS
- IP
- Select DNS
- Add servers 8.8.8.8

Here shown the Figure 3.7 how to configure WAN with Static IP is given below;

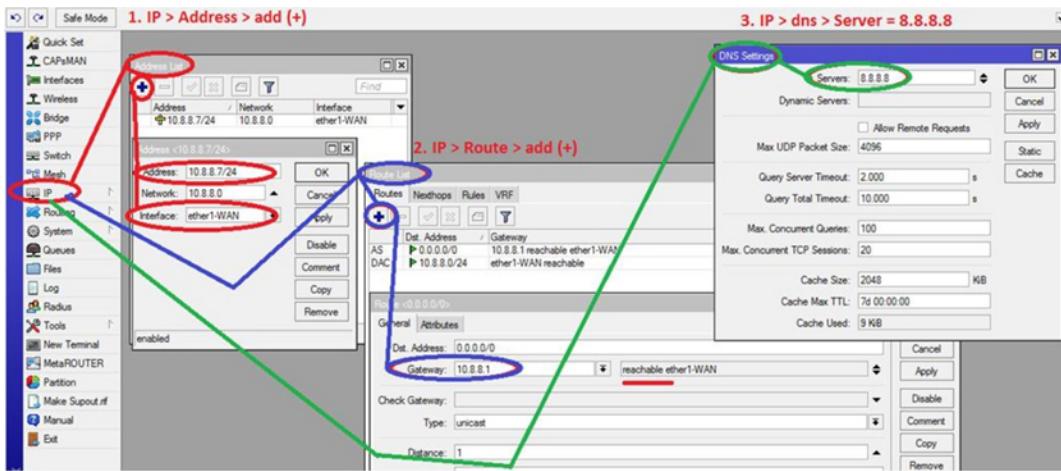


Figure 3.7: Configure WAN with Static IP

3.2.9 Configure WAN with DHCP

- Go to IP
- DHCP Client
- Add interface connected ISP Either.

Here shown the Figure 3.8 how to configure WAN with DHCP is given below;

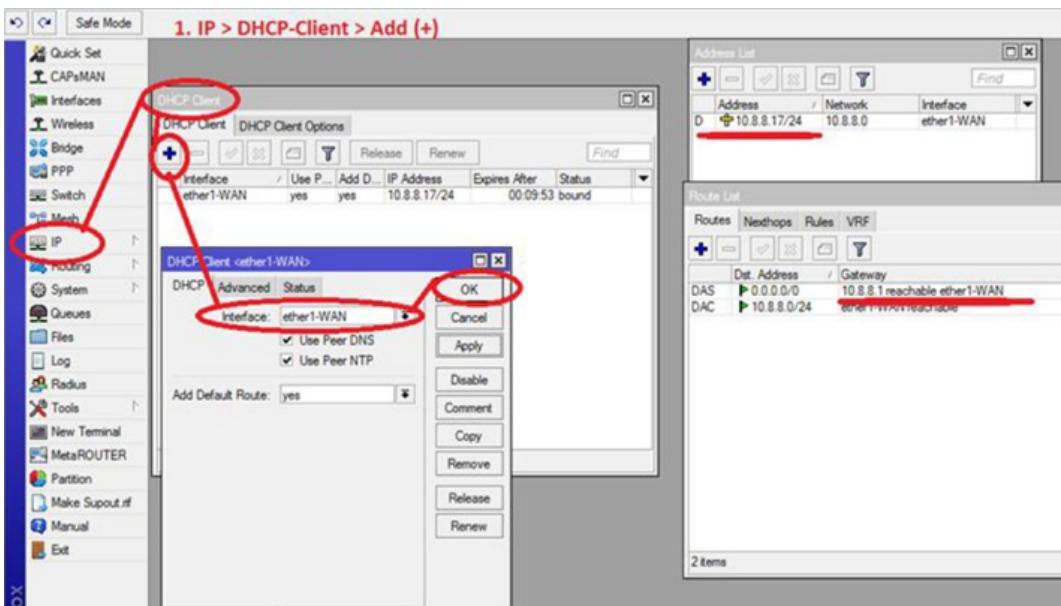


Figure 3.8: Configure WAN with DHCP

3.2.10 Configure WAN with ISP Given PPPOE Username and Password

- Go to Interface
- Select Interface option click PPPOE Client
- Select General
- Name, Interface: Select ISP Connected Either
- Select Dial Out
- Add ISP provided Username Password.

Here shown the Figure 3.9 how to configure WAN with ISP given PPPOE username and Password is given below;

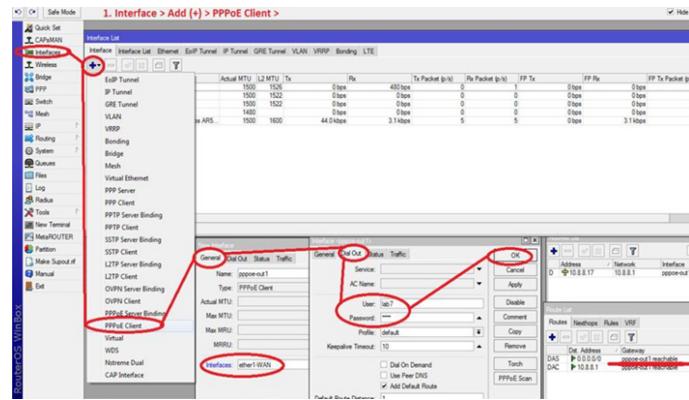


Figure 3.9: Configure WAN PPPOE username and Password

3.2.11 Configure LAN with Static IP

- Go to IP
- Select Address
- Add 10 block IP 10.0.0.1/24
- NAT Setup
- Go to IP
- Select Firewall
- Select NAT
- Add Action: Masquerade.

Here shown the Figure 3.10 how to configure LAN with Static IP is given below;

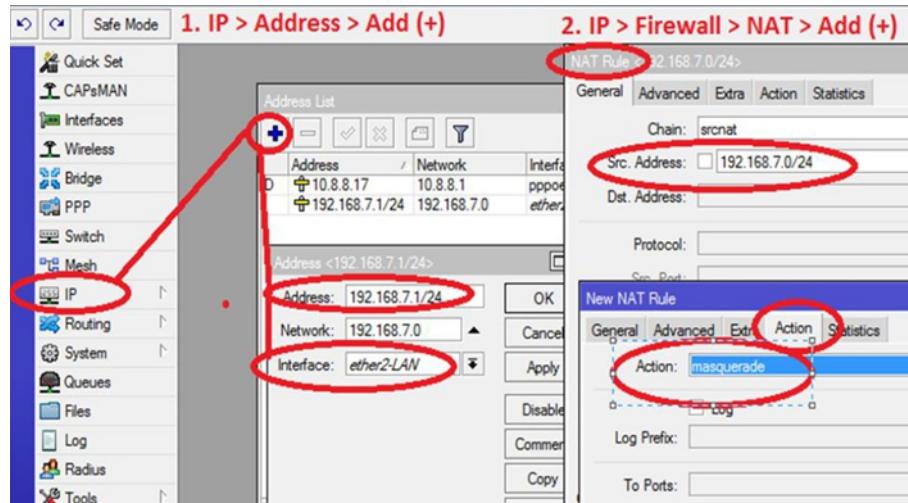


Figure 3.10: Configure Lan with Static Ip

3.2.12 Configure LAN with DHCP

- Go to IP
- Select DHCP Server
- Select DHCP Setup
- Use ISP connected Either.

Here shown the Figure 3.11 how to configure LAN with DHCP is given below;

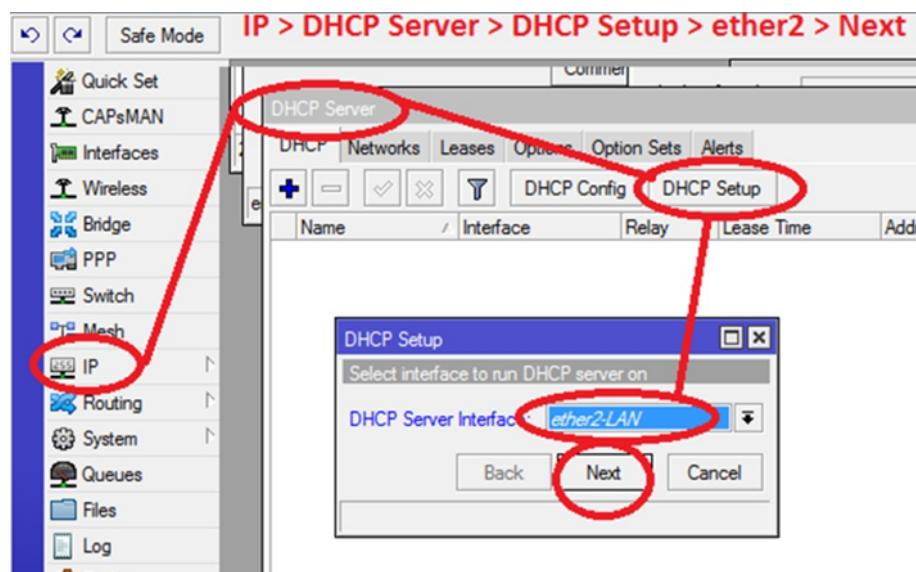


Figure 3.11: Configure Lan with DHCP

3.2.13 Configure LAN with PPPOE Username and Password

- Go to PPP
- Add Interface
- Connect Either 1 (ISP line)
- Select Ok
- Go to Profile
- Add General name, DNS, Limit
- General: 1mb, DNS: 8.8.8.8, Limit: 1Mb/2Mb/5Mb
- Now Go to Secret click
- Give name Password
- Service: PPPOE
- Now select profile: 5M User (Suppose), Local Add: 10.0.0.0, Remote Add: 10.0.0.1

Here shown the Figure 3.12 how to configure Lan PPP setup is given below;

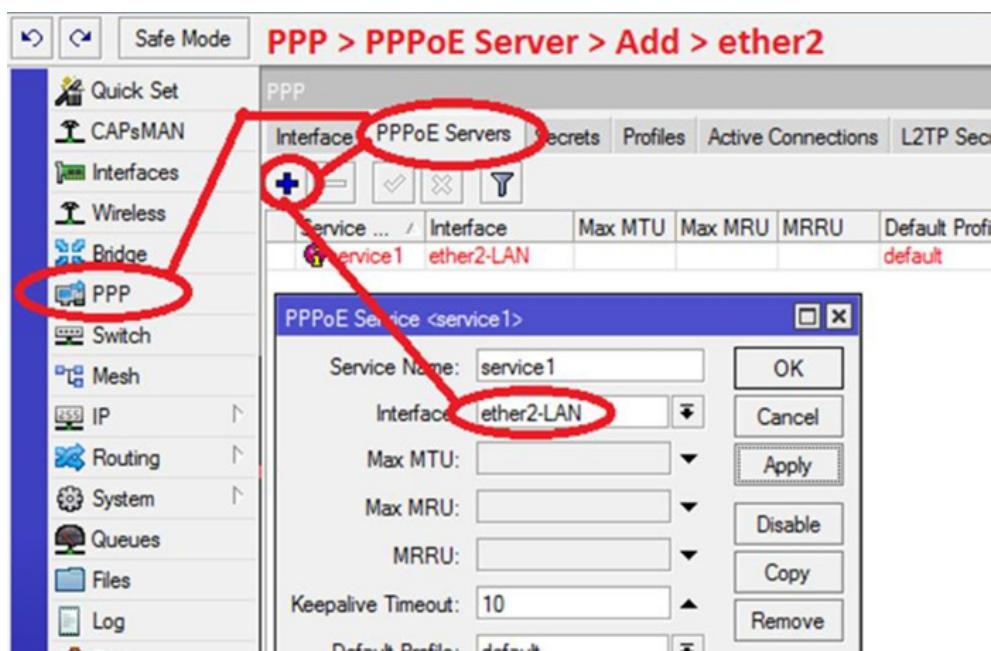


Figure 3.12: Configure Lan PPP setup

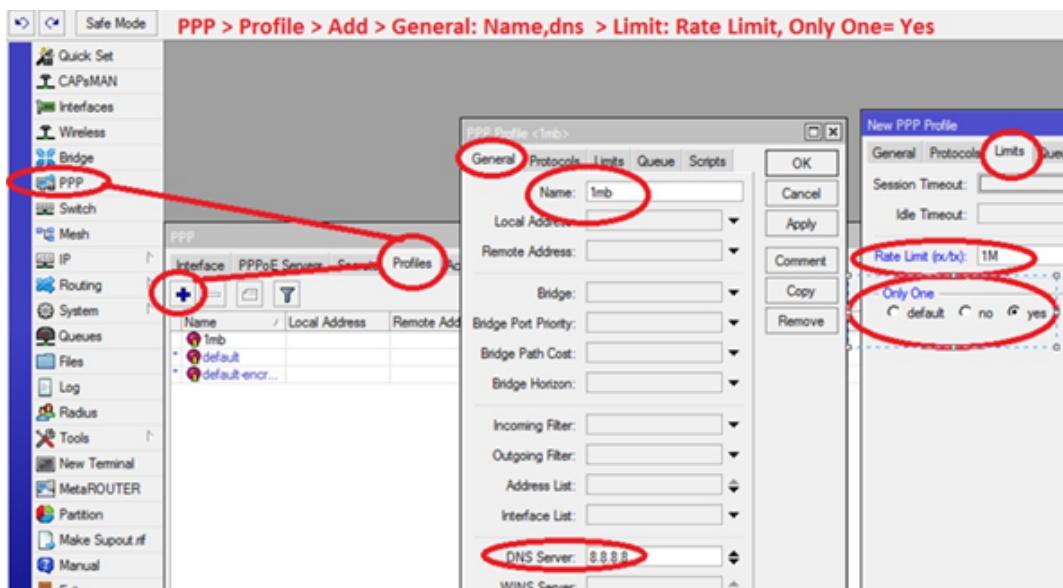


Figure 3.13: Configure Lan Profile setup

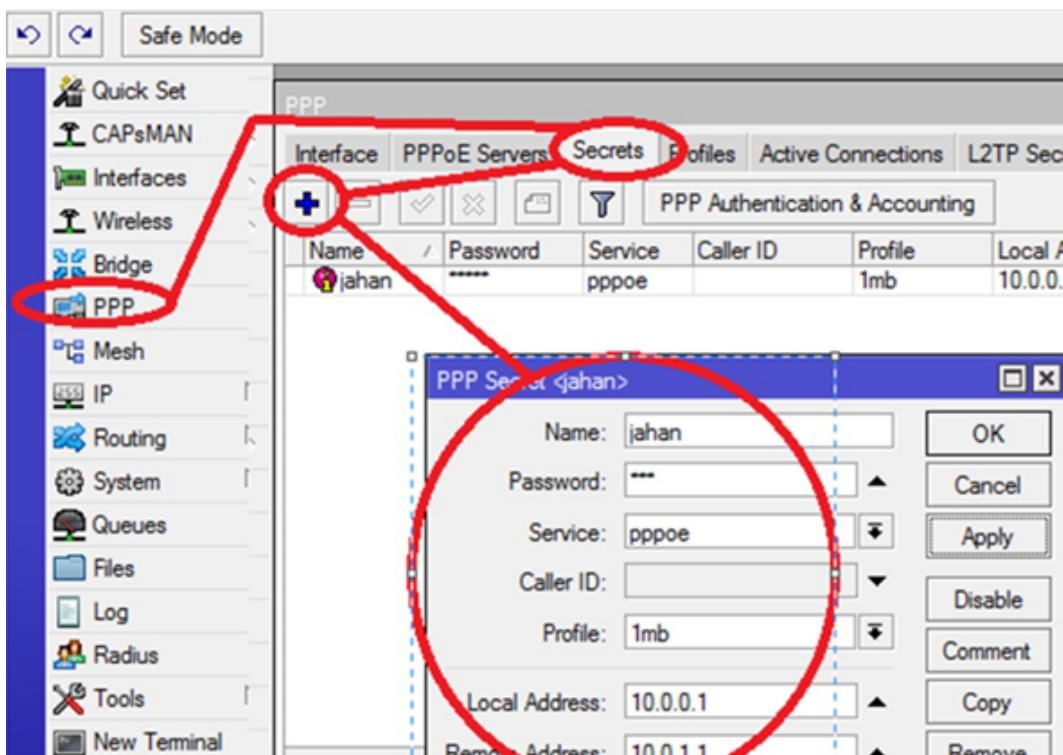


Figure 3.14: Configure Lan PPPOE name and Password setup

3.2.14 Check Your Internet Connected Successfully

- Go to new Terminal
- Write ping 8.8.8.8/ ping google.com
- Connect Either 1 (ISP line)

We see its showing “mili second time” then its link up. If it’s showing “Time Out” then it’s not link up. Here shown the Figure 3.15 how to check your internet connected successfully is given below;

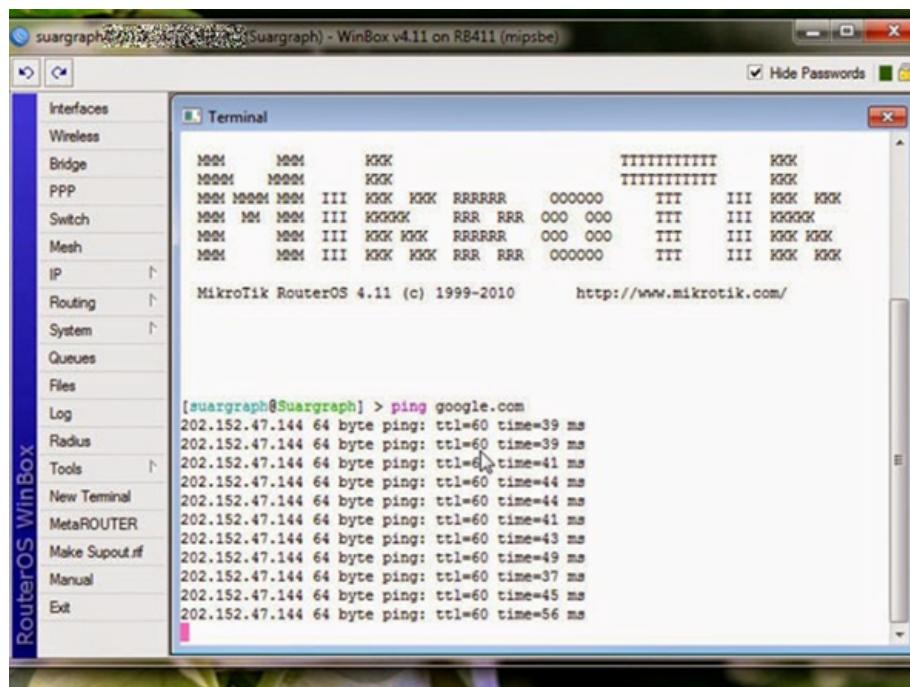


Figure 3.15: Check your internet connected successfully with terminal

3.2.15 Hotspot Configuration

- Go to Ip Address
- Select Hotspot
- Select Server
- Select Hotspot setup
- Select ISP
- Select Connect Either

- Add DNS
- Select Profile/ Bandwidth package
- Add Name, Add Limit: 1M/2M/5M
- Add User
- Add name Password, Profile: 1M/2M/5M
- Add Limit: uptime = 100.00.00(100hrs)

Here shown the Figure 3.16 Hotspot Configuration is given below;

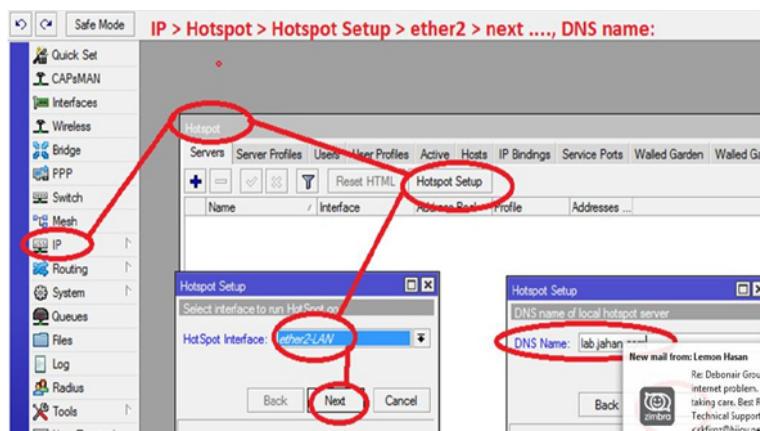


Figure 3.16: Setup Hotspot

Here shown the Figure 3.17 Hotspot Configuration is given below;

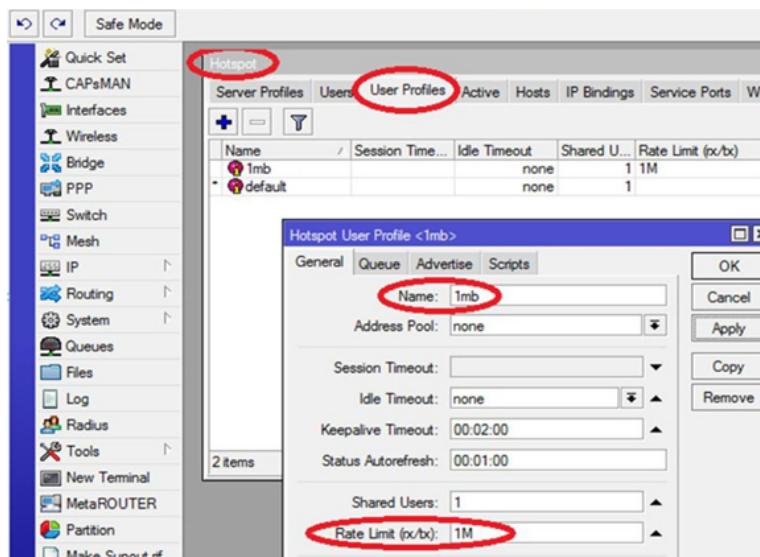


Figure 3.17: Setup Hotspot

Here shown the Figure 3.18 Hotspot Configuration is given below;

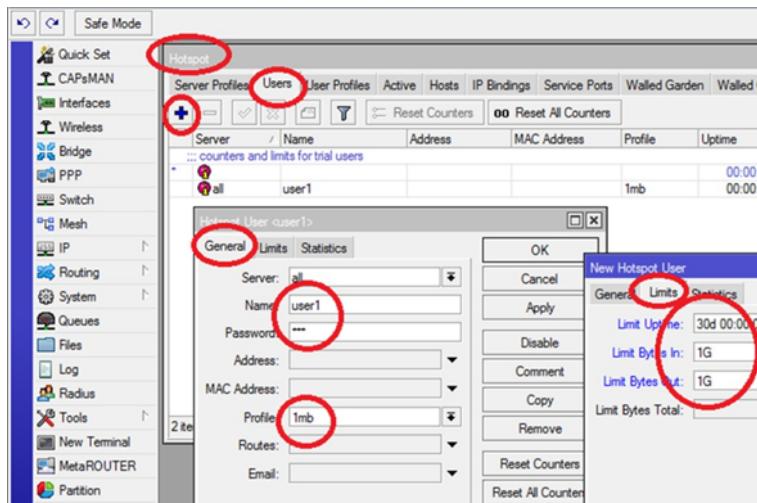


Figure 3.18: Setup Hotspot

3.2.16 Control Bandwidth Priority to Dedicated/ VIP Client

- Go to IP
- Select DHCP Server
- Select Leases
- Select extend IP go to genarel
- Select Page Limit

Here shown the Figure 3.19 how to control Bandwidth Priority to dedicated/ VIP client is given below;

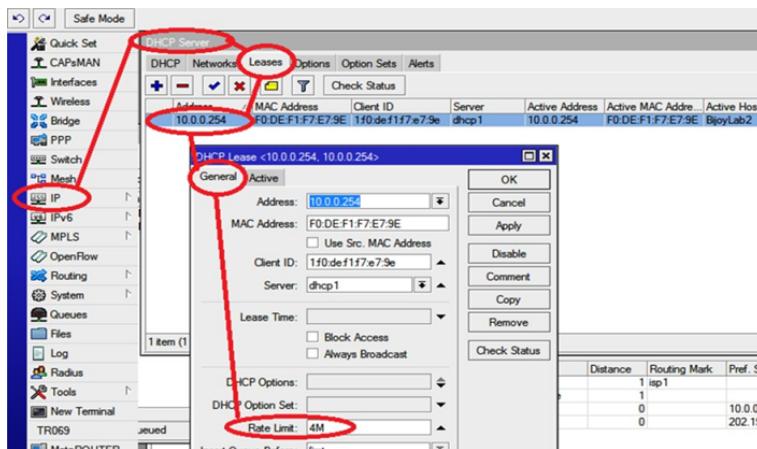


Figure 3.19: Control Client Bandwidth

3.2.17 Control Day and Night Package

- Go to Queues > Select simple Queues > Name: Peak Hour, Target: 192.168.1.10
- Set Max limit: Target upload = 2M, Target Download = 2M
- Select Time: 18:00:00 – 23:59:59, Select All Days.
- Add One more Queue
- Select simple Queues > Name: Off-Peak Hour, Target: 192.168.1.10
- Set Max limit: Target upload = 4M, Target Download = 4M
- Select Time: 00:00:00 – 17:59:59, Select All Days

Here shown the Figure 3.20 how to control Day and Night Package client is given below;

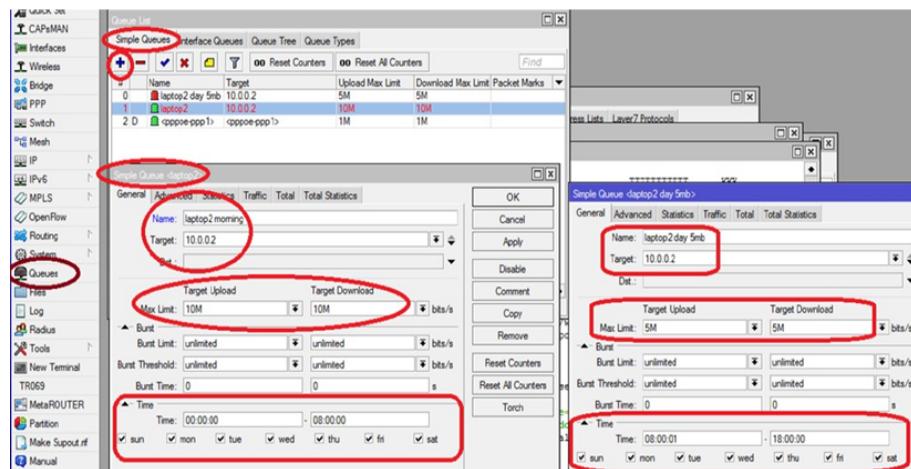


Figure 3.20: Control Day and Night Package

3.2.18 View Client Consumption Graph

- Go to Tools > Graphing > select Interface Rules click Add > ISP connected either in Interface and apply.
- Select Queue Rules Click Add > Select user give ip address and apply.
- Select Resource Graphing Rules add > Give allows address apply.
- Now select Interface Rules click Graphing Settings > Select show ever 5min and apply.
- Go to browser > search ISP given Ip address (Ex: 192.168.1.10/graphs).
- Now you can see graph of all users.

Here shown the Figure 3.21 how to view client consumption graph is given below;

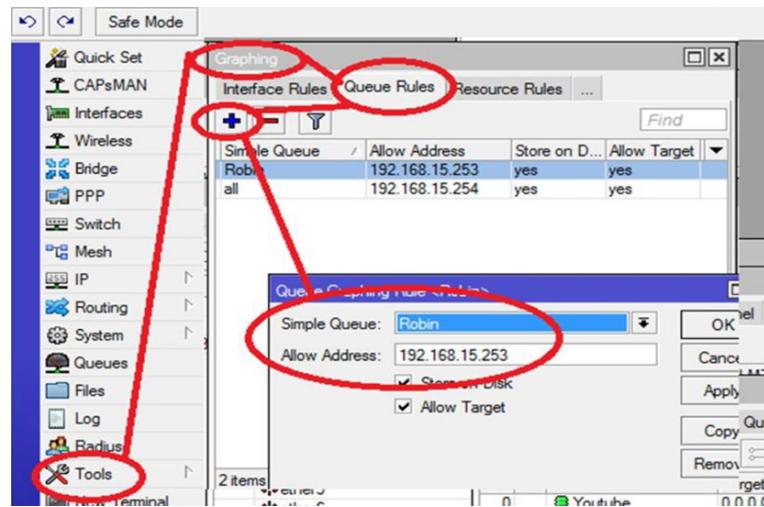


Figure 3.21: View Client Consumption Graph

3.2.19 Create Winbox Login User Read/ Write/ Full Power

- Go to System > User click add > Create new user name group
- Group: here is 3 options, full, read, write. These options are work differently.
- Read: User can only see Admin Configuration but cannot configured anything.
- Write: User can configure your mikrotik router.
- Full: User can fully configured your mikrotik router.
- Now give password and apply.

Here shown the Figure 3.22 how to create winbox user is given below;

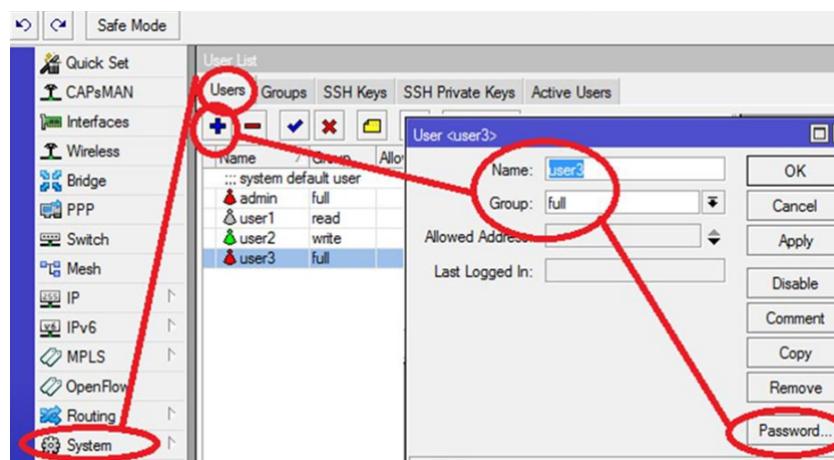


Figure 3.22: Create Winbox User

Here shown the Figure 3.23 how a user can read, write and use full power is given below;

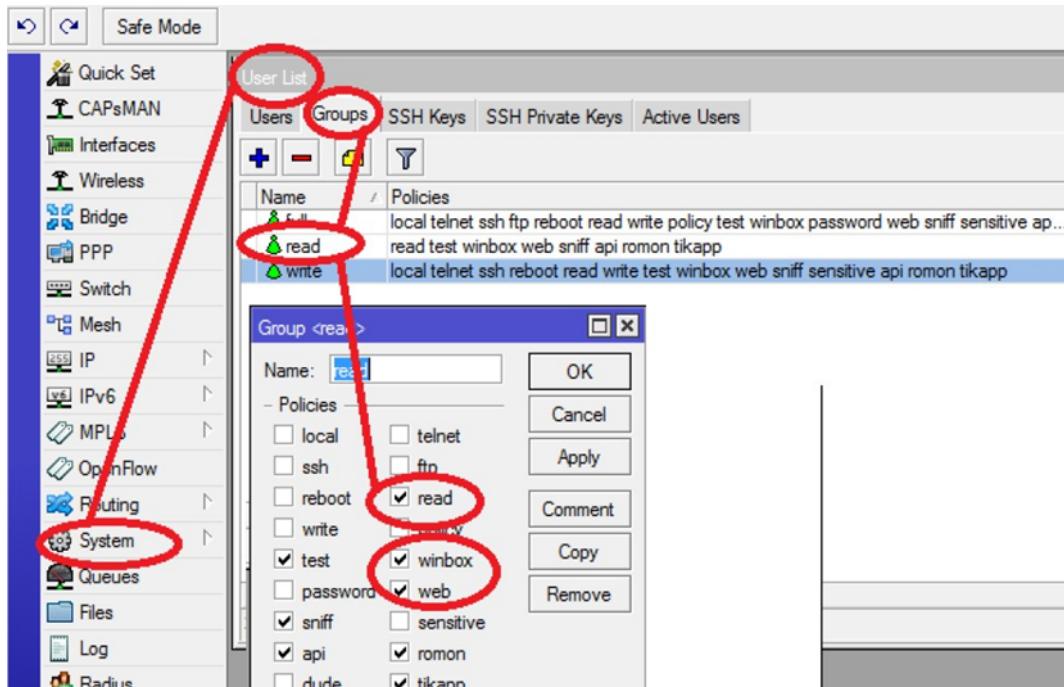


Figure 3.23: Give winbox user read, write and full power

3.2.20 Configure Bridge with WiFi Password

Here we are showing how to configure bridge with Wi-Fi password.

Wireless Setup:

- Go to Interface.
- select wlan.
- Select Wireless.
- Select Mode: op Bridge.
- Select Band: 2GHz Bgn, Give SSId apply.
- Go to IP.
- Add list click Add.
- Interface: Wireless, Address: 192.168.0.1/24 apply.

DHCP Setup:

- Go to IP.
- Select DHCP server.
- Select DHCP Setup > Next.
- Setup Wireless password apply.
- Go to wireless.
- Select security option Click add.
- Select WPA WPA2 and give password.
- Wifi Inter.
- Select wlan1.
- Security Profile.
- Select Profile 1.
- Press Ok.

Here shown the Figure 3.24 how to setup a bridge is given below;

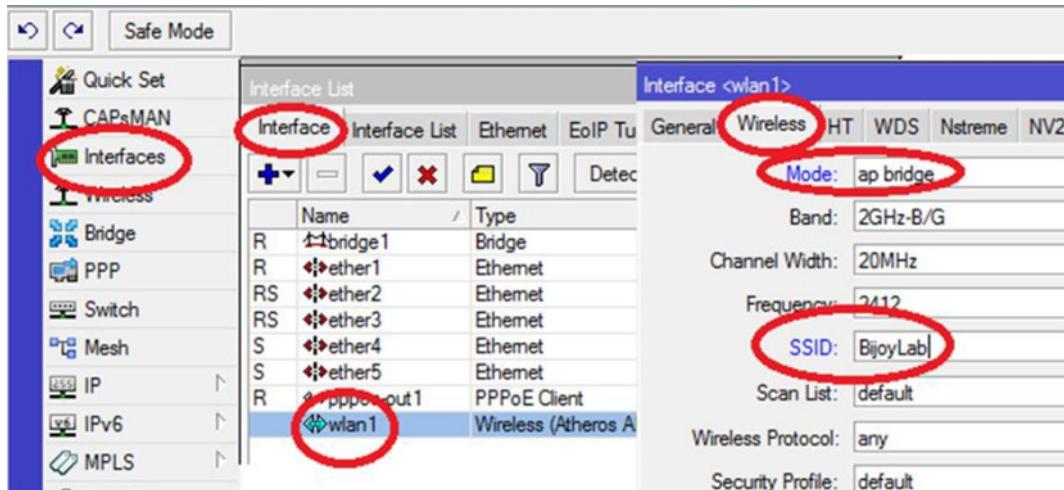


Figure 3.24: Bridge Setup

Here shown the Figure 3.25 also how to setup a bridge is given below;

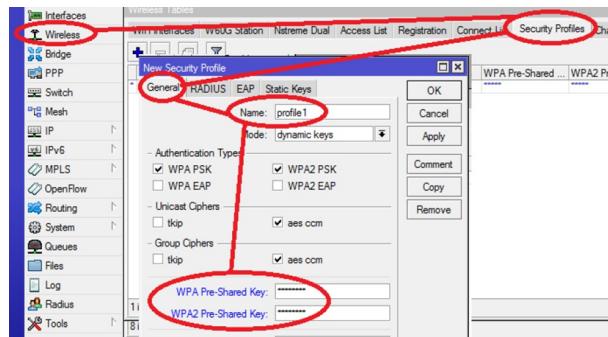


Figure 3.25: Bridge Setup

Here again shown the Figure 3.26 how to setup a bridge is given below;

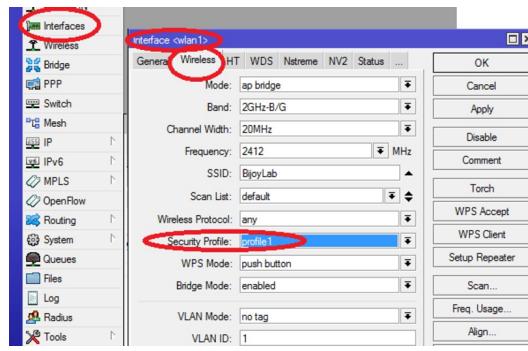


Figure 3.26: Bridge Setup

Here shown the Figure 3.27 how to setup a bridge is given below;

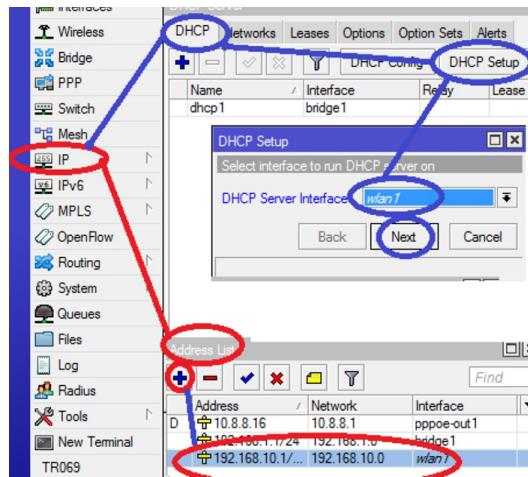


Figure 3.27: Bridge Setup

3.2.21 Client VLAN Setup

- Go to Interface.
- Select Vlan Click (+)
- In general select Name
- Vlan Ip: 101
- Interface: either 2
- Create more vlan profile
- Select Vlan Click
- In general select name
- Vlan Ip: 102
- Interface: either 2

Here shown the Figure 3.28 how to setup VLAN basic configuration is given below;

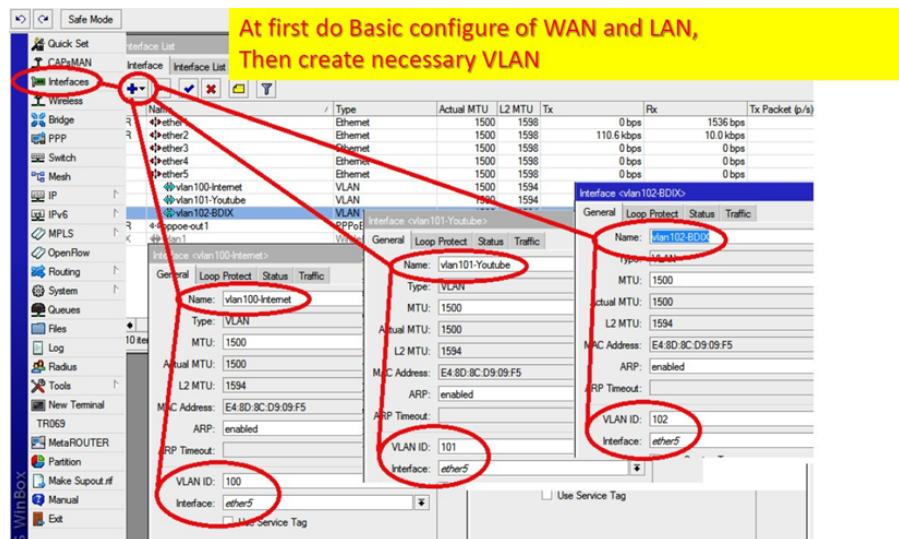


Figure 3.28: VLAN basic configuration

Here shown the Figure 3.29 how to add peering IP on VLAN is given below;

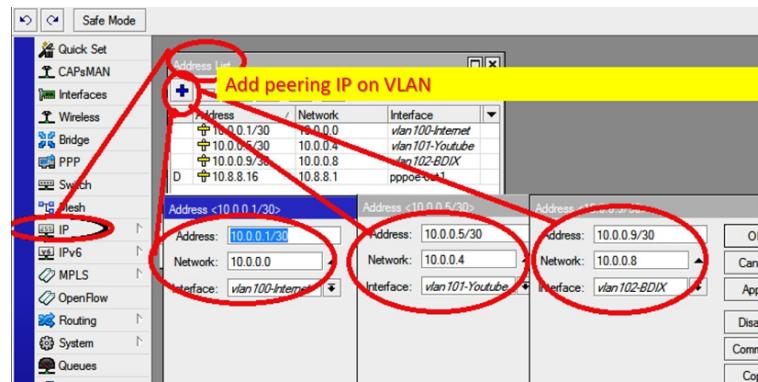


Figure 3.29: Add peering IP on VLAN

Here also shown the Figure 3.30 how to add peering IP on VLAN is given below;

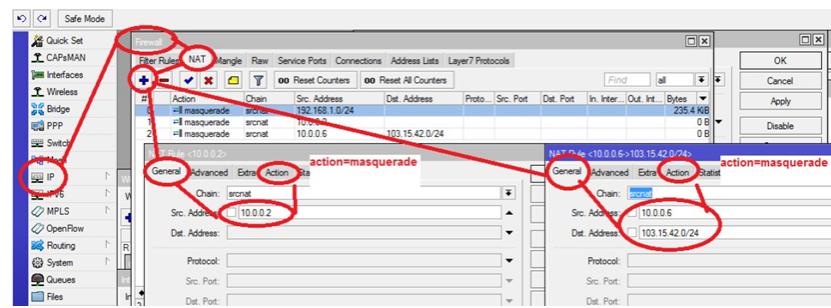


Figure 3.30: Add peering IP on VLAN

Here also shown the Figure 3.31 how to add add self-information is given below;

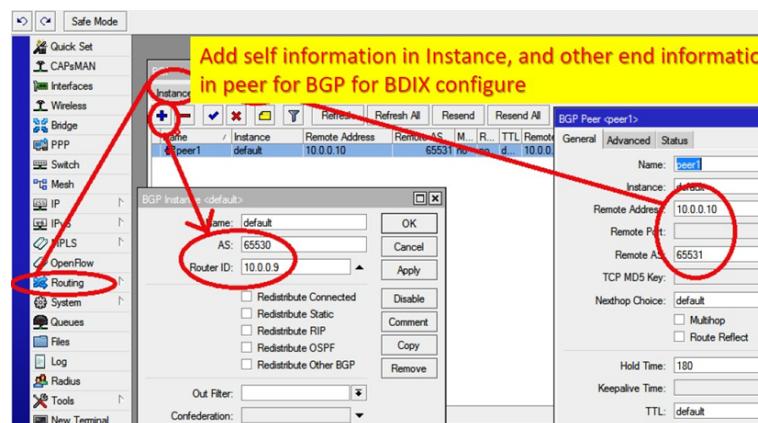


Figure 3.31: Add self-Information

3.2.22 Client Line Block

- Go to IP
- Select Firewall click (+)
- In general select src. Address: Client IP apply
- Select Action option
- Select action: drop apply

Here also shown the Figure 3.32 is given below;

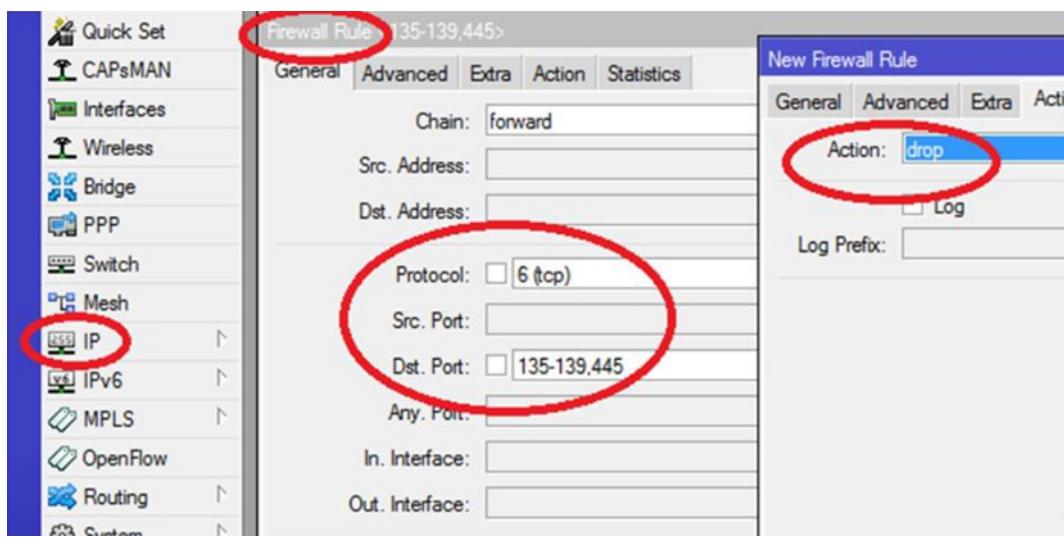


Figure 3.32: Client Line Block

3.2.23 Router Backup and Restore

Backup:

- Go to Files
- Select Backup option
- Give name password and apply.
- Now we see our backup file in file list. We copy this Backup file in our computer.

Here also shown the Figure 3.33 how to backup a router is given below;

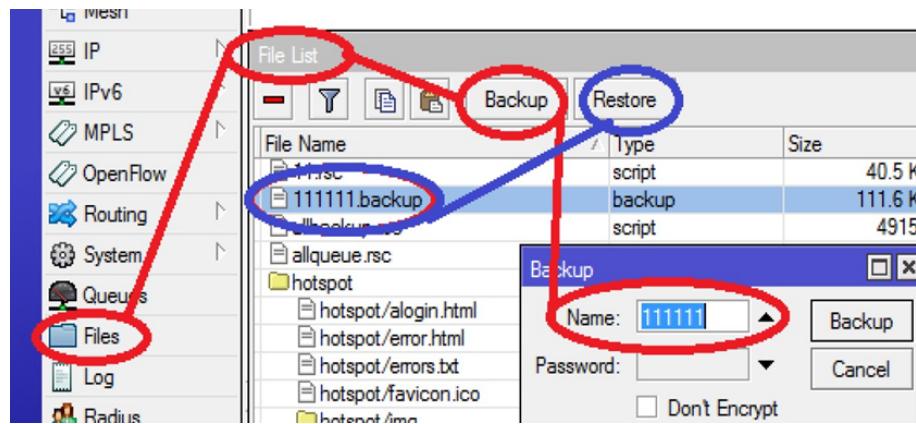


Figure 3.33: Router Backup

Restore:

- You can restore from terminal and from System
- Reset configuration option. If we restore from terminal then, Go to new terminal
- Write system reset-configuration.
- Now login again and restore configuration.

Here also shown the Figure 3.34 how to restore a router is given below;

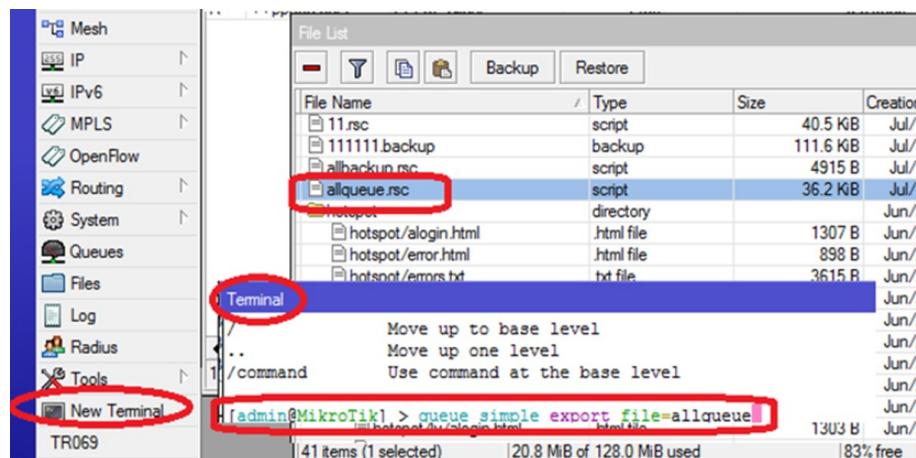


Figure 3.34: Router Restore

Chapter 4

Learning Experiences

4.1 Knowledge Acquired

In this section, the knowledge I have acquired in this internship is given below.

4.1.1 ISP

The business that can give us access to the Internet, often through a computer, is known as an Internet Service Provider (ISP) in the industry. When someone mentions a "provider" in relation to the Internet, we typically mean their Internet service provider (ISP). The Internet is made possible thanks to our ISP. In other words, even if we have a brand-new computer with a built-in modem and a router for networking, we won't be able to access the Internet without an ISP membership. The ISP is typically a "cable business," which in addition to providing a TV subscription, also provides an Internet subscription, for the normal homeowner or apartment tenant. However, we don't get both for the price of one. We can choose to have only high-speed Internet, just cable TV, or both. [8]

Our access point to the Internet and everything else we can do online is an ISP. We'll be able to send emails, purchase online, conduct research, and more as soon as our connection is set up and activated. The ISP serves as a connection or channel between our computer and all other Internet "servers." Email may give us the impression that we are speaking with our mother directly, but in reality, it is more "indirectly." Our email is sent from our computer to the computers and servers of your ISP, from which point it is routed to its destination via other servers on the network. Every residence or business that has access to the Internet has an ISP.

The good news is that we don't all need to use the same service in order to interact with one another, and doing so doesn't cost any extra. Anyone can own a website, but not everyone can work as an Internet service provider. It requires resources, infrastructure, and a large number of highly skilled technicians. For its tens of thousands of subscribers, our ISP maintains miles of cabling, hundreds of technicians, and network services. We normally have a selection of ISPs available to us based on where we live.

4.1.2 Advance Router Configuration

One of the most widely used routers is the MikroTik. Numerous networking features on the MikroTik Router make it simple to create a solid and streamlined network. It is said that an enterprise office or an ISP company cannot function without a MikroTik Router for even a single day. Therefore, I believe that system administrators who do not now use MikroTik Router will do so in the near future. As a Technical Support, I have been using MikroTik Router in network for few times, and I can honestly say that my network is highly stable and seamless. The bandwidth control service and packet filtering features of the MikroTik Router are its key selling points, along with its low cost. Because Winbox, a graphical user interface (GUI) program, makes MikroTik Router so simple to manage, it is a favorite among system administrators. This article is intended to demonstrate the fundamental configuration of a MikroTik Router using Winbox software so that a new user of the MikroTik Router can easily configure his or her router from very beginning and can manage his network smoothly. [9]

4.2 Skill Learn

Here in this section, the skill I have learn in this internship is given below.

4.2.1 Communication Skills

Thanks to this internship training, my "People skills" have significantly increased. My communication abilities have improved because to the training's various communication channels, including mail and verbal communication.

4.2.2 Organizing Abilities

How employees and bosses behave in firms is governed by organizational behavior. Despite the fact that many businesses have laws that must be obeyed, it is important to remember that personal attitude and behavior come first. I've grown in my understanding of organizational behavior as a result of this training.

4.2.3 Networking

Technical proficiency is required but insufficient for management success. Employees can't achieve in today's more competitive and demanding workplace on the basis of their technical skills alone. They must also have strong interpersonal abilities.

This is precisely the benefit that I have gained from my technical training's. I have gained knowledge on how to interact with, comprehend, and inspire others through networking, both individually and in groups.

4.2.4 Problem Solving

Problem-solving requires the ability to think conceptually. Several training sessions have incorporated problem solving, which calls for the capacity to mentally evaluate and diagnose, in order to find a solution, from the first day of the training to the last day.

Chapter 5

Conclusion

5.1 Upcoming Career and Scope

In reality, obtaining a job can be difficult for anyone in our nation, particularly if we lack experience. I decided to do an internship because it will help me turn my job chance into a learning opportunity. I can therefore find opportunities in my future through this internship as like:

- Work as an organization's IT manager.
- Work there as a Network Engineer.
- Work as a manager of security and technical support.
- IT job in a bank.

5.2 Conclusion

Internship is a great opportunity that what I learned and experience in my academic life. Also I got job experience as an intern at working in the “OneSky Communication Limited”. Most of the engineering or technical company, the engineers have dedicative mindset is the most important thing to work. I have gathered a lot of experience in the ISP Company OneSky Communication Limited. There was a scope in the field of computer network planning and designing Data connectivity, ensuring security and maintain. In this Internship report, I have explained my learning and experiences about Network Designing.

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