INTERNSHIP ON ISP NETWORK

Submitted by

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

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APPROVAL

This Internship titled "Internship On ISP" Network", submitted by Md Akash Mia, Id: 201-15-13909 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 2023.

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DECLARATION

We hereby declare that, this project has been done by us under the supervision of Md. Abbas Ali Khan, Assistant Professor, Department of computer science and Engineering Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

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ABSTRACT

Any interface two or more computers that permits the potential exchange of data or information is referred to as a network. To send data or information, Between two members, we require several specialized pcs, generally known as "servers" servers are available in a number of kinds. MikroTik Router, Configuration a Router, Take web servers, DNS servers, proxy servers, Mail server, Firewalls, and FTP servers as an illustration. It is impossible to maintain a network because all of them operate differently. We need to understand how network systems work if our network is linked to the web and want to retain to protected. For this reason, this topic was selected for this report.

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CHAPTER 1 INTRODUCTION

1.1 Introduction

When many computers are networked together, they can exchange information more effectively and a network is established. A network is a system that connects computers, gadgets and even web of others objects. The three most important pieces of hardware in any network Infrastructure are in general, network Infrastructure components can be divided into three main categories, network hardware, such as Routers, Switches, and physical services. Such elements are very visible. Since devices connected to the same network can communicate with each other, as well as with other networks, the network is perhaps the most important component. Internships are an excellent way for students to acquire highly useful marketable skills. Degree-granting schools, college and university place a high priority on Internships, especially in health, geography, technology, and finance. Everything we engage in today, from personal relationships to business activities to online training of products, is dependent on computer- mediated communication and Internet connectivity. Consequently, network security measures need to be as soon possible. from the perspective of its Administration, a network is considered private if it cannot be reached from a location outside its geographic or logical scope. A network can be set to "Public" for maximum accessibility, enabling any user to join A network connects computer system and all its connected things.

1.2 Motivation

At the moment, I am attending Daffodil International University in order to get a Bachelor of Science in Engineering. Knowledge is very Important in practical learning. This actually improves a student's practical Knowledge of the subject. During my apprenticeship, I learned that MikroTik at an ISP is full proficient in network configuration details [1]. As an internet service provider, I understand my issues very well, interacting with people, understanding their needs, and providing them with better services. My aim is to enrich the networking sector of Bangladesh.

1.3 Internship Objectives

I wanted to gain experience for exactly that reason, which I found during an Internship at an ISP Company. I long for a new challenge where I can learn, develop and apply my new skills. The ultimate objective of my internship program is to prepare myself as a competent person in the competitive job market. So that I can face everything in the job field.

I'll also offer some thoughts from a personal viewpoint.

- In order to satisfy the internship requirements of the CSE program.
- Learning more about MikroTik.
- Increase your knowledge of networking's components.
- Configuring Mikrotik Router.
- The best way to contact the clients.
- How to offer customers The services they Need.

1.4 Introduction to the company

Salam online prides itself on being an Internet Service Provider (ISP). The reason is that the basic business ethics in the ICT field is long – term relationship with customers. Salam online internet service provider. Salam online internet Users 2250. Salam online company provides internet access to both personal and business customers. The company started conducting business operations in 2015 [2].

1.5 Report Layout

- In chapter (1): I have described the objective of the Internship, the motivation for the internship, and the Introduction to the company.
- In chapter 2: I addressed the organization with which the internship was affiliated, the IT assets they made available, and the function of MikroTik and wifi in the career path.
- In chapter 3: I talked about the tasks, occurrences, and challenges that are part of daily life.
- > In chapter 4: I explored reflections, smart plans, and acquired competencies in
- In Chapter 5: In in addition to describing MikroTik's potential for the future, I also explored the conclusion and a prospective standpoint.

CHEPTER 2 ORGANIZATION

2.1 About the Company

Salam online is one of the pioneers and most experienced (ISP). It has its own dedicated fiber optic and BTRC- Approved ISP to provide salaam online services. Salam online prides itself on being an Internet Service provider (ISP). This is because the core business principle of the ICT sector is long-term relationships with customers. Salam online Internet Service provider. Md Abdus Salam Managing Director of Salam online. The table shows the Access of the ISP:

Name	Salam Online ISP
Address	31/4,3 rd Floor, Colombia Supper Market Wireless
	Gate, Mohakhali, Dhaka-1212
Telephone	+8801906102645
Fax	+8809610049990
Email	info@salamonline.com.bd
Type of Organization	ISP of Company
Website	www.salamonline.com.bd

Table	1:	Address	of	the	ISP
		1 10 01 0 00	<u> </u>		-~-

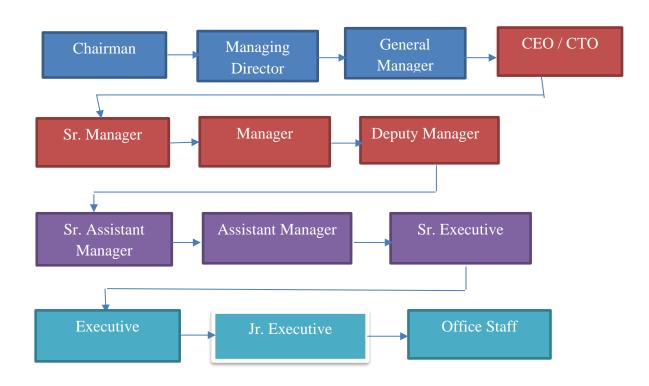
2.2 Product and Market Situation

Salam online is one of the pioneers and most experienced (ISP). It has its own dedicated fiber optic and BTRC- Approved ISP to provided Salam online services. also offers various professional training services. These are given below. Here is the:

- Office Course
- > Networking
- ➢ Web design
- ➢ Graphics design
- ➢ CCNA
- ➢ Video Editing
- ➢ Hardware
- > Auto CAD
- ➢ Freelancing

1.6 Target Group

The company's customer base is all consumers and small to medium-sized businesses. The company plans to focus on clients, as they are perfect targets for out new high-Speed offerings and have the highest growth potential for the company. Networking, and web design, feel that these market segments have a high demand for special prices and services and it creates more, reliable customers and their demand is high. The company is also planning to launch new products. The company plans to try To so something better.



2.4 Organizational Structure

Figure 2.1: Organogram of Salam online ISP

CHAPTER 3

TASKS, PROJECT AND ACTIVITIES

3.1 Every day Task and Activities

- > Month 1: What I learned in first month.
- I learned the fundamentals of Networks.
- I learned about the fundamentals of Mikrotik routing.
- And the WIFI router's principles.
- > Month 2: What I learned in the second month.
- UTP cabling full practical
- Basic network addressing (IPv4)
- Wifi Router configuration
- A network printer configuration
- > Month 3: What I learned in the third month.
- MikroTik Router OS installing and configuration
- Static arrangement and bridge configuration
- Configuring Dynamic Host Configuration Protocol
- > Month 4: What I learned in the Fourth month.
- CCNA
- IP Addresses
- IP Address classes
- MAC Addressing

3.2 Event and Activities

- Keep an eye on the computer systems and network.
- setup user accounts, permissions, and passwords.
- Configuration of Cisco Switches and Routers Servers and routers are also recognized to also be network components.
- Switch and local area network troubleshooting.
- examining network issues.
- Support for network users reporting technical problems monitoring of network use and management.
- IT network for competition policy and regulation suggestions.
- Support for mobile users or actual client migration comes to an end.
- studying the media converting and fiber optic transmission technology.

3.3 Project Task Activities

- IT Support for these other employees' devices.
- In control of the projects' technological and engineering components.
- Organize, manage, forecast, and supervise all hands-on work.
- IT workers may also be expected to handle operations and staff training.

3.4 MikroTik Router

The Latvian company MikroTik has been Pioneer in the development of wireless- Routes and a provider of internet service solutions ever since its establishment in 1996 [3]. This now supports software and equipment for internet accessing throughout the world. the company's products are well known for being less expensive solutions to premium routers and Ethernet radio relay lines.

3.4.1 Router OS

All gateway boards sold under the MikroTik brand use the running program known as Router OS [4]. This is a Linux distribution with a personality network that incorporates the Linux v2.6 kernel. It may well be installed on a laptop or desktop computer, transferring it into a router with every play a leading role, including a Firewall, routing, wireless access point, bandwidth metering, and VPN server, among many others.

3.4.2 Configuration

This router can be set up in a variety of ways, including using a command prompt serial terminal, a monitor and keyboard for local access, Winbox, network-based Secure Shell, Telnet, a satisfyingly developed online interface, or an API programming interface for creating one's own control application. Even though Router OS supports Mac-Telnet and Winbox, IP level connectivity may be challenging.

3.4.3 Features

A sampling of the functionality offered by this Router OS can be found in the list of characteristics that follows:

- Router OS could serve as a switch and a bridge in a network.
- There is technology for DHCP servers.
- Supports a broad range of routing protocols (BGP, OSPF, MPLS, etc).
- It creates opportunity for a Firewall.
- This program has a feature called virtual private network, or VPN service, which supports both IPv4 and IPv6.
- A PPPOE client-server is one of Router OS's many sophisticated features.
- Captive gates and Wi-Fi hotspots are both accessible.

3.5 Cloud Core Router

It took until November 2012 for MikroTik can release the clouds foundational router [5]. It is a robust router made for business use, and thanks to its 36 cores, it has incompatible

processing speed and efficiency. The Cloud Uses A range with 36 cores is the best option when we need very of the high volume of millions of packets per second. One of each of the twelve gigabit Ethernet connections, an SFP connector, a serial console cable, and a USB port are all there. Furthermore, there are two DDR3 SODIMM storage slots exposed. The amount of RAM your device still may use may indeed be regulated by other operating systems, but Router OS does not (will Accept and utilize 16GB or more). CPU having 36 parts at 1.2 GHz per multichannel: TileraTile-Gx36

Superior performance:
 Standard forwarding at 8 Mbps
 Fast-path forwarding 24Mbps (wire speed for all ports)
 Throughput of up to 16 Gbit/s



Figure 3.1: The 1036 series Cloud Router from Mikrotik

3.6 Setup the MikroTik

Before configuring MikroTik, the winbox needs to be downloaded [1]. It displays the MikroTik OS in graph format. It's not required to set winbox after downloaded. It is a possibility for the young.

3.7 Network Diagram

Any physical or wireless connection between at least two computer systems is referred to as a network. The network's two foundation computers are connected by a cable. Connectivity Map Shows in figure: 3.2

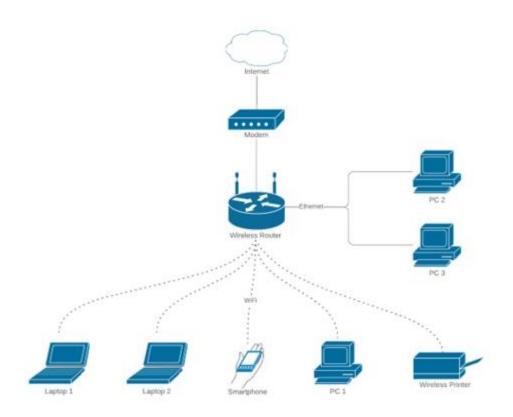


Figure: 3.2 Map of Connectivity

3.7.1 Initial setup

- It is to turn on the Mikrotik Router first.
- Next, join a UTP cable to the MikroTik LAN port and the other PC port.
- A winbox will open.
- No password is required when the IP and MAC addresses are displayed; instead, we can access the system by navigating to the MAC address and signing in as "Admin".

3.8 Configure A Router

Next, select Ip-> addresses

Select" Add"

Give a 192.168.0.1/24 IP address. before choosing local interface, select "Okay"

• Pass 1: First, click the IP>>Address option on the mouse.

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• Pass 2: In the dialogue box that appears, click the plus sing to create more room for adding addresses to the list

Figure 3.3 Display the IP Address List:

+		7		Fitted	
1	Address	/ Network	Broadcast	Interface	
D	· 10.0.1.245	10.0.1.1		12tp-out1	
	· 192.168.0.1/24	192.168.0.0	192,168.0.255	wian1	
D	· 192.168.1.33/24	192,168.1.0	192.168.1.255	ether1	

Figure: 3.3 Displays the assigned IP address

• Pass 3: When the New IP address box has shown, fill it out with the required addressing information, choose an appropriate interface, and the click OK and Apply to save the changes.

New A	ddress		
Address:	0.0.0.0/0		ОК
Network:		-	Cancel
Broadcast:		•	Apply
Interface:	ether1	Ŧ	Disable
			Comment
			Сору
			Remove

Figure 3.4: Give the location details

3.9 Static Configuration

If the Router doesn't come with default settings, you have a lot of options; in this situation, we'll choose the setup that work the best. Static configuration is that.

• Pass 1: Reset the MikroTik settings in accordance with diagram 3.5



Figure 3.5: Reset the MikroTik's settings

- Pass 2: Each piece of data being brought in or must First pass through the gate and interact with it in order to use routing paths. The entrance and exit points for the show are at gateway.
 - The Steps to configure a gateway in MikroTik are as follows:
 - Route>"+"> Gateway in IP
 - After submitting an application, select "Okay"

Setting up a gateway shown in Diagram 3.6

OF Safe Mode Season 54.00 K: NOF 88			
Clask Sar Collubion Hofewa Claskan Cla	Poulos Naciona Ratos URF	New Factor General (Jethiane) Day, Alabama (J. 3500)	an D General
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) Hale Sport A Q Hanuf	2 teres		
Tam Willian		ratied	

Figure 3.6: creation a gateway

• Pass 3: The DNS server converts these DNS records into device IP addresses. Basically, we use google DNS from 8.8.8.8. As our main DNS. Here is a description of how to set DNS on a Mikrotik Router [2].

Operation:

Go to the IP menu, then select DNS

After completing an application, click "Okay"

The setting of the domain name system is shown in Figure 3.7

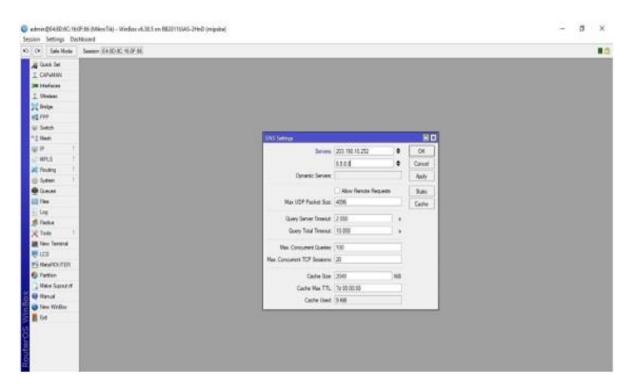


Figure 3.7: setting the Domain Name systems

Pass 4: In instances where the public IP could even transform at irregular intervals, such as when a network device impacts it or a goal tunnel receives a new controller after already being disconnected, or simply when the public IP is dynamic, Firewall NAT action=masquerade is a special variation of action=
 Srcnat that has been created specifically for use in some these situations.

Operation:

Go to the menu and select IP> Firewall> NAT>"+" Masquerade is in action. After completing an application, select "Okay"

Figure 3.8's NAT Rule example is as follows:



Figure 3.8: Illustration the NAT Rule

3.10 Bridge Configuration

Pass 1: Within a truss consultation, a bridge link must be made to connect strong associations [1]. The details gateway would based on "port-number," and this could change immediately after a shutdown. One MAC address would be redistributed among the slave ports once more for bridge connection.

Operation:

Step: Type the bridge's name into the "Bridge">"+"field.

select "Okay" after finishing an application.

The assignment of bridge ports in Figure 3.9 shows:

	Sension: 54.0D 8C 16.0F 8A	
Gank Sel		
I CAPAMAN		
i itafacas	Bidge	60
I Ubukas	Bulge Pots Rees NAT Hulls	
in in the second s		
ett PPP		Find
2) Switch	Interface / Bridge Presty (n. Path Cost Hotson Rola Rost Pat 1 #3a/ter/? 1x53p1 80 10 dosbied out	•
T Hesh	i \$3arber3 brdge1 80 10 deabled port	
UP 1	#3ethen8-LAVI bidge1 80 10 designated pot	
HPLS 1	i #flastwid bedge1 80 10 dealed part #Seter61,4V2 bedge1 80 10 designated port	
Routing 1		
i) System It		
Concerne Concerne		
Fies		
Log		
ft. Packa		
Tada 1		
I fiew Territod	Sters	
5 LCD		
HeraPOUTER		
Patton		
Q Hanual		
Harnal New Writes		
Haine Superst of Hansed New Wellers Est		
Harnual Tiese Weißes		
Harnal New Writes		

Figure 3.9: Bridge ports task

IP addresses allocation for the bridge configuration shown in Figure 3.10

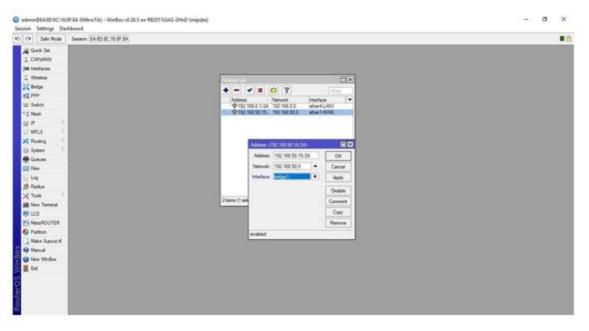


Figure 3.10: IP addresses allocation for the bridge configuration

3.11 DHCP Configuration in Mikrotik Router

Here, two-way communication between a client and a server is facilitated through dynamic host configuration protocols (DHCP). In addition to providing the DHCP client with IP addresses, this capability also provides the client with other helpful data such as subnet masks, default entryways, and DNS information. Every Mikrotik router comes with the DHCP option out of the box [4]. This makes it easier for system administrators to manage the framework by enabling anyone to convert a Mikrotik Router into a DHCP server instantly. The procedures for confirming DHCP on a Mikrotik switch using either the command line or the graphical user interface are listed below.

3.11.1 DHCP Setup

Pass 1:

Operation: To move on to the next step, select IP > DHCP > "+">

The next step is to choose the DHCP Interface, as shown in Figure 3.11.

O OF Safe Mode Season: E4-8D 8C 16-6F-84			
0 Sate Mode Season (64.00.10.10.10.10.10.10.10.10.10.10.10.10.	Interview Inter		

Figure 3.11.1 server interface with DHCP

Pass 2:

I have Assign an IP address after you open the interface. which is seen below:

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Operation:

select IP>DHCP.

The IP address allocation generated DHCP setup are shown in the figure 3.12:

Ce Sala Mode Samiro E43D-8219	FM .	
Cash Ser Collaber E Malan E Malan		
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U Super	photoset and the second s	
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per t	Neve Interface / Heav Lease Time Actions Fuel Add AD.	
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E Finang P	DOTSING BD	
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Garan	DHCP Aldren Spare EVENDD 3 04	
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R. Pachus		
C Tasks P		
Fav Tenina		
100		
S HeraPOL/TEX	(Carros	
Fatton		
Hale Sport #		
P Kenud		
Tes Writes		
5M		

Figure 3.12: The allocation of IP addresses in the DHCP

The 3:

At any one time, the Mikrotik router OS DHCP server might be running on every Ethernetlike connection, the clients will require an access point, two DNS server logins, ongoing support and interest, and an identity [3]. The proper net mask and receiving IP address will be assigned to the connection.

Protocol:

IP>DHCP the network gateway's net address is 1980168.51.1 observe this process.

The DHCP network's entry point is depicted in picture 3.13 as follows:

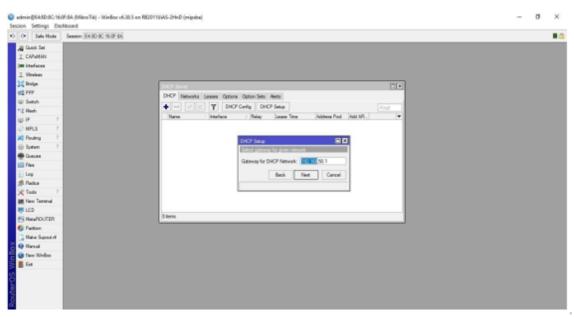


Figure 3.13: the location of the DHCP network's entrance

Pass 4:

Also, we must set DNS

Transform:

IP> DHCP

The domain name system and its settings are shown in Figure 3.14:

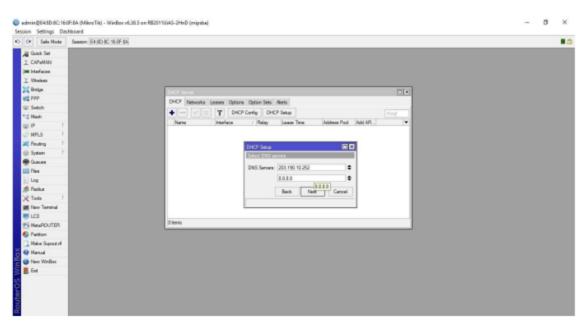


Figure 3.14: setting the Domain Name system

Here could see the dialog box where the setup is configured.

DHCP setting is complete, as seen in image 3.15:

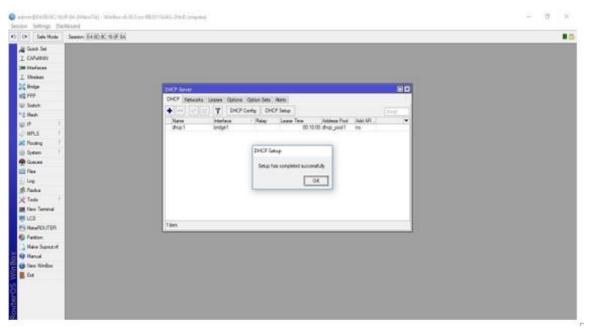


Figure 3.15: configuring DHCP

3.12 PCQ Bandwidth Management

Pass 1:

With minimum level of control possible, the PCQ scheduling method can automatically balance or mold information for a limited number of users. PCQ situations can be divided into three categories those where all users have the same throughput, those where we have fixed bandwidth allocation among clients, and those in which we have unclear throughput equitable distribution among clients. A list of a created class listed below.

Operation:

Move Enter the import address by shifting your cursor to the new terminal.

Action src Importing an address will be next, Figure 3.16's source show



Figure 3.16: using an address. RSC import

Pass 2:

Operation:

In reality, a type marker known as mangle uses particular markings to distinguish between computation frames.

```
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```

Operation:

To do this, go to IP>Firewall> Mangle>" +">General>Chain> Prerouting Method:

Choose "Okay" when it has been created an application Firewall the mangle norm example in Figure 3.17:

OF Sale Mode	Senter E43D/C W/F/H						
Ganh Set	(m) (m)	First Nargie Bate			80		HD
I CAPUMAN	Rep Pulse 1667 Worde Row Service Ports Connections Address Lints L	General Advances I	Inter Action Stateme		OK		
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U.P. P	2.0 It pas _ posticuling	So Pet		-	Carry		
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files.		Cut. Interface					
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ft Pintus		In Hafey SH		•			
A Tada		Out. Herface List	() () () () () () () () () ()	•			
Time Terrind							
e na		Fadurt Walk		•			
S New YOUTON		Consultan Mak.		•			
Hele Support		Ruding Maik:		•			
literati		Rodry Table		•			
taw Welks		Convertion Taxa	-				
64		Connection Sale					
110							
		Cavedian NAT Sale		•			

Figure 3.17: The Norman Mess up

Pass 3:

This section's focus is now on advanced manipulation.

Operation:

To use this function, select IP> Firewall>Mangle>"+"Advanced>General.

Supply. With locations, list YouTube Action.

select "Okay" after finishing an application.

This advance Setup of the Mangle is depicted in Figure 3.18

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Figure 3.18: The Mangle's Advanced setup

Pass 4:

In order to limit the connection speed for a specific IP, subnetworks, interfaces, terminals, as well as other factors, queues have been used to manage and prioritize packets. Cut back on peer connectivity.

Operation: selected Individuals queued up>"+" Updates> Name queue 1 After completing the registration process, select "Okay"

The construction of a list display is shown in Figure 3.19

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Figure 3.19: setting Up Queue

Pass 5:

Operation:

From the menu bar Icon, select Queues, Queue Type, and General. Pcq Type> setting: select your preferred dst. address

Select "Okay" after finishing the registration process.

Figure 3.20 displays a variety of queue types:

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Figure 3.20: Various sorts of lines

3.13 Cisco

The interaction of two or more devices is known as Networking. Both the hardware and the software used to make to are interested to connect logical and physical media.

3.13.1 models of Networking

Networking models come in a variety of forms.

- A consumer product
- Framework for mentoring
- A website Page.

A consumer product:

In the customer model, one server serves a big number of clients. Even though the client can share resources with the server, the server cannot share resources with the client.

Framework product:

The development of peer-to-peer technologies gives every machine the same status.

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A website Page:

Domain models also include the client-server and peer-to-peer models.

3.14 IP addresses

The two distinct varieties of Internet Control message protocol (IP) number are IPv4 and IPv6.

Features of IPv4 include:

- IPv4 addresses have a length of 32 bits.
- There were four octets in total.
- Broadcasting, multicasting, and even unicasting are ten more digits after the decimal point.
- There were five different groups, from A through E.

3.14.1 IP address classes

Just a few of the various directions are class A, class B, class C, class D, and even class E.

It separates into.

Both 8-bit network IDs and 24-bit host IDs are present in class A identifiers.

Both a 16-bit network ID and a 64-bit host ID are used as class B identifiers.

These items fall under class C: 24-bit network ID just an 8 bit host ID.

3.15 MAC addressing

A form of physical or hardware address that is embedded into NICSs is the MAC address. Each NIC is assigned a unique MAC address by IEEE.A 12-dijit, the 48-bit hexadecimal value indicates the MAC address. It is constituted of letters the through F and also the numbers 0 to 9. It might be written in either of those formats.

3.16 Determine the MAC address on your machine

- Select "Run" from the menu to start a program.
- The rules are as follows, keyword in cmd.
- It is copied and pasted to enter ipconfig/all.
- Start is indeed the keystroke necessary.

CHAPTER 4

COMPETENCIES AND SMARPT PLAN

4.1 Competencies Earned

An evidence change that can be used to install and configure a fully functional DHCP server based on windows server 2003 on a server is given to some of the following points. The other individuals will be unable to obtain an IP address if a DHCP sponsor no longer has a configured IP agreement. Most frequently, it signifies that the other staff member's inability to connect to a DHCP server to related a problem or the DHCP server's unavailability. Assuming the DHCP server is operating and distinct individuals are able to get authentic addresses, check that all connecting rental hardware is working. If you were able to start a DHCP service but it failed because the device shut down, look for any advertising in the device log using the event viewer.

4.2 Smart plan

Any company requires a smart plan if it wants to be successful. In essence, interesting a number of effective planning strategies will result in a wise pale. In reality, It uses minute drive router's bandwidth for fast network access. The sophisticated bandwidth modulation technique used by Mikrotik incorporates intelligent bandwidth manipulation using the router operating system. Reason LAN, WAN, and DHCP server were simple to configure. Well, I'll employ Mikrotik to control bandwidth in the future if every company wants to install an ISP or DHCP server.

4.3 Reflections

Employing Mikrotik, an office can properly manage its real bandwidth. Numerous sites with a Mikrotik router at the excellent location. We will be able to connect the computer using the WAN's first bandwidth off even if the network will divide bandwidth over the same time period. No one in the neighborhood can prohibit a network administrator from employing their private PC by connecting to the MikroTik curricular router. Implementing a bandwidth micro issuer for office bandwidth management is achieved by the MikroTik carrier.

CHAPTER 5

CONCLUSION AND FURTHER CAREER

5.1 Discussion and Conclusion

Nowadays, the vast majority of organizations primarily rely on the Internet to control their activities. But without a carefully organized network and a working network management system, the organization's goals will not be achieved. Thus, there should be aware of network architecture. A cheap router that might also work really well with small networks is MikroTik. For this reason, MikroTik Router OS is simple to work with. MikroTik regularly incorporates filter rules, layer 7 protocols, bandwidth shaping, etc. for acceptable network security. Both a potent wireless access point and a web proxy server can really be run by MikroTik. Our research's objective is to help explain core network architecture, specifically the capabilities and configuration of MikroTik Router OS, in a bid to possibly employ MikroTik Router to develop a method. The internship was excellent and immensely satisfying. I have seen the future, and communicating with many others who can back it by assisting me will be valuable to me. My internship has taught me that schedule and self-motivation are the most vital issues. When I first started, I thought nine hours a day, five days a week of office management would be ample. I didn't consider that. After realizing what I needed to get done, I started making plans for the day to ensure that my hours of overlapped work were continuous. It was the right moment and I was prepared after receiving a response intended for questions that needed to be learned. I wanted to understand how to utilize the business to maintain myself motivated during this whole internship and the long hours spent at the office. I'm still looking for ways to use the organization to generate fresh suggestions and ideas. My great possibilities are still accessible to me, but I continue to paint for the goals of the scholarly institution. I'm employed in this field. I worked extremely hard to get this job, and I'm eager to discover more about this industry and meet new people. It was a great experience that I wanted to be populated by another mediator.

5.2 Scope for Further Career

Our internship's primary objective was to put the knowledge we had gained to use in a true setting. I learned a lot of network design principles and models during this internship that I may employ whenever fostering cooperation in the future. And once again, MikroTik Router OS is loaded with a variety of characteristics that can be applied to suit any network requirements. I worked on MikroTik's firewall features throughout my internship and practically configured every feature. As a result, we'll be able to build and efficiently control a network utilizing MikroTik equipment.

APPENDICES

Appendix A: Internship Reflection

I want to apply everything I've learned in the classroom to real-world situations that arise at work by coming up with novel solutions to challenges that arise. Acquiring the ability to discern how to hone the system would enhance as well as deal with new knowledge, experiences, and connections in a professional situation. By building relationships with other people's superiors, you can enhance the size of your professional network. I work in a position where I am exposed to customers, business protocol, and other staff. I monitor other people's behavior and gain insight into it using this exposure to my advantage and their benefit. I am carrying out the obligations of my internship in a professional way. The degree to which a professional organization is held accountable and can provide feedback, the facets in which its mission or vision is carried out, the aspects in which its people can interact with one another within the organization, the aspects in which power is distributed, the aspects in which its organization is structured, the defined as a way in which its members can make decisions, and the facets in which one might come to understand the organization's culture are all things that should be taken into consideration. The large samples of my internship overall experience of each meeting, and facilitates the formation of professional judgment. opportunity for internships during the design stage.

Appendix B: company Detail

Company Offices:

Name	Salam Online ISP
Address	31/4,3 rd Floor, Colombia Supper Market Wireless Gate, Mohakhali, Dhaka-1212
Telephone	+8801906102645
Fax	+8809610049990
Email	info@salamonline.com.bd
Type of Organization	ISP of Company
Website	www.salamonline.com.bd

Table 2: Address of the ISP

Reference

[1] Salam Online ISP <</https://salamonline.com.bd >> (access date: 11.10.2022 at 10:30 AM)

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