

**INTRODUCTION OF NETWORKING DEVICE, CONFIGURATION OF  
ROUTER AND TROUBLESHOT PROBLEM SOLUTION**

**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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**DAFFODIL INTERNATIONAL UNIVERSITY**

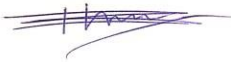
**DHAKA, BANGLADESH**

**December 2020**

## **APPROVAL**

This Project/internship titled **Introduction of Networking Device, Configuration of router and troubleshoot problem solution**, submitted by MD.Billal Hossain Rifat, ID No: 152-15-6097 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 31.01.2021.

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## DECLARATION

I hereby declare that, this project Internship has been done by me under the supervision of **Aniruddha Rakshit, Sr. Lecturer, Department of CSE Daffodil International University** and co-supervision of **Raja Tariqul Hasan Tusher, Sr. Lecturer, Department of CSE Daffodil International University**. I also declare that neither this Internship nor any part of this Internship has been submitted elsewhere for award of any degree or diploma.

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

Finally, I must respectfully acknowledge with due respect the support and patience of my parent.

## **ABSTRACT**

Uses of the internet is immeasurable in our life. Now a days, we can do everything in our daily life from any where through uses of the internet. My internship to make improvements from time to time through their invented tools and devices for us to use to make our lives easier. There are many people who really depend on computer network. Network can help not just in present but also approximating the future. People can complete their different tasks in a few minutes and the work is always correct, the People is satisfied. My internship is all about updated computer networking information, so that it's helps to fix any difficulties and make sure that people can use it properly.

This internship aims to include both cable and wireless information so that I can start a career in this rapidly changing field. Find out the fields that are spread parallel to each other like network networks, network administration, and management. With profound network administration and management expertise, I'm able to function as a network manager, including important aspects of stability, grid computing, and tolerance to faults. This course allows me to work as a network engineer/architect or as an IT support engineer, as a network designer/systems analyst, or in a possible MSc thesis by research, MPhil, and Ph.D.

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# **CHAPTER 1**

## **INTRODUCTION**

### **1.1 Introduction**

Introduction of networking device, configuration of router and troubleshoot problem solution is an about networking system where i am learning practically by doing my internship. I'm learning about networking device, Configuration of router and switch, Many type of troubleshoot problem and solution. It will be very helpful for my future career in this sector.

### **1.2 Motivation**

I am doing my internship in Computer Networking to know top to bottom of a Networking System. Now i am doing this in professional platform, so that i am getting experiences of device, configuration, troubleshoot problems in working sector. If i know about networking system completely, know how to configuration of router and switch, All device functions and solution of troubleshoot i must be capable for this networking system. In future i will be able to take any challenges of this system.

### **1.3 Internship Objectives**

Ultimate objective of my internship is to make my future career smooth and bright in networking. Network engineer is related to the computer network system, the technical skills are essential for competitive job market. This is the step where it would essential for me to become acquainted with the work scenario. However, if i have skills and enough confidence, I can survive in the IT world. For that, I will enhance my skills and make myself capable in the field. I learning from basic to higher level work so that when I start to do this job it would be easy for me to work.

### **1.4 Introduction to the Company [Rf:1]**

The trustworthy name for BDCOM Online Limited is Website, E-commerce, IT Infrastructure Creation, and Industry Standard Applications. From the start, BDCOM has found the 'Absolute Perfection' as its guiding philosophy, which includes all its

operations. With its distinct vision, BDCOM is the predecessor to value-centric offerings in both the national and the international market and is an architect for high-value ICT applications and tech solutions.

In 2014 and 2018, BDCOM Online Ltd. won ICSB Two Times coveted national prize. The award reinforces BDCOM as a top-performing and high value-added organization in the ICT industry in Bangladesh.

## **1.5 Report Layout**

### **Chapter 1: Introduction**

I have described in this chapter, Introduction, Motivation internship objective of internship, Introduction to the company.

### **Chapter 2: Organization**

I identified my internship organization. And this chapter contains information on the location of the internship in this program. And the xenial internet services, CCTV framework, Web service, Web design, Wireless, IT Services, ISP, SWOT Research.

### **Chapter 3: Tasks, Projects and Activities**

Everyday routines and duties, incidents and activities, and challenges have been identified. Switch, Modem, Learning, and Understanding About the Media Converter of Network Modules, PoE, Optop Fiber, Network, and Layer, LAN Link, WAN, NC-support system, Summery Microtic Router, IP Addressing, NAT, Domain Name System, Interface and Setup, Winbox General.

### **Chapter 4: Competencies and Smart Plan**

I defined the skills learned, the intelligent strategy, and contemplation.

### **Chapter 5: Conclusion and Future Career**

The discussion and conclusion and scope of the future I have defined. Step Contemplation, Guide, descriptions of the organization.

## CHAPTER 2

### ORGANIZATION [Rf:1]

#### 2.1 Organization Profile

BDCOM Online Limited is a trustworthy name for National Secured Data Access (NSADDC), the IPTSP (IP Telephony Service). These services include e-commerce, fleet management and vehicle monitoring solutions, construction of IT infrastructures, BPO and many more. From the start, BDCOM found the 'absolute perfection' concept as a guiding light around which the whole range of operations orbits. BDCOM is the precursor to the value-centered service industry and an architect to build high-value ICT solution technologies for the domestic and global market through its special vision.

On 12 February 1997, under the Business Act, 1994, BDCOM was established as a private limited company and was registered with the Joint-Stock Company Registrar. In 2001 the Company then became a public limited company to float its share to the public. BDCOM has more deployments, developers and technical skills on the market than any other data exchange player. BDCOM's financial power, expert management team, strong solution pipeline and diversified sales base will boost its already excellent position as the leading supplier of wireless connectivity services solutions.

#### 2.2 Services and Market Situation

The major business lines of BDCOM are as follows:

- Nationwide Internet and Data Connectivity
- IP Telephony Service
- Software Development
- System Integration
- Managed Services
- Fleet Management & Tracking Solution
- Hospitality Management & Hotspot Solution
- MFS HUB Solution

- Pre-Press BPO

### **Market Situation**

As we are in competitive markets, our primary way of retaining our consumers is ads direct marketing. We're the leaders of Bangladesh's Internet Service and must benefit from number one. Our brand name BDCOM needs to be used. For our ads and direct marketing, the following resources are available

- Announcement. (Television, Facebook, Brochures, Etc.)
- Media affairs, Public relations.
- Released via e-mail.
- Telemarketing. Telemarketing.
- Conference of the Press.
- Sales of Door to Door.
- Marketing DataBase.
- Marketing client link (CRM).

Direct marketing

Personal salespeople (Our inside or hired Commission basis salesforce)

Mail direct

References to consumers

Sales Indirect

Distribution "Extensive" (putting your sign-up CDs in every mass-market retailer you can find or running ads on mass media)

Selective delivery (submitting the CDs or other electronics stores in Circuit City or running unique television ads)

Distribution "exclusive" (working with special stores, distributors, and businesses or with very special media).

Because of the business situation, this marketing approach will change at all times.

### **2.3 Target Group**

The majority of BDCOM's clients are Banks, NBFI, corporate, telecom and home users.

Having 481 employees with 252 of them being highly qualified, skilled and experiences

in providing technical expertise. BDCOM aims to provide high quality and efficient service throughout Bangladesh.

## **2.4 SWOT Analysis [Rf:2]**

The SWOT Analysis is an important method for determining the capabilities, weaknesses, chances, and risks of firms. It allows the company to know how to measure its efficiency and to search the macroclimate, in which case it can navigate the competition's Turbulence Ocean. The next thing is the BDCOM Online Minimal SWOT analysis:

There are some inherent strengths and vulnerabilities for an organization and there are also external openings and challenges throughout its existence. The following would introduce the internal strengths and vulnerabilities of BDCOM Online Limited, as well as external risks and opportunities.

### **Strengths:**

- Marketing staff committed.
- Company's goodwill.
- The management's assistance.
- DhakaCity's biggest and most secure fiber-optic network
- Financial resources, financial aid.
- Help for innovations.
- Customer care.

### **Weaknesses:**

- No V-Sat contingency or big company customer protection scheme.
- The quality of operation is very poor (Bandwidth).

### **Opportunities:**

- It is advised to incorporate value-added services like VOIP, VOD, and Gaming Server.
- It is important to introduce new technology.
- It should expand the line for Goods & Services. The goal of the business is to

launch these services at the earliest opportunity.

- Country Internet-Wide Service and Facilities for Data Exchange.
- The Internet service provider Number -1 in Bangladesh can still be BDCOM Online Ltd.
- You should upgrade the original telephone line to E1.
- Sensitization of the brains of the consumer.

**Threats:**

- We should boost our broadband Internet Access, and the Service is the strength to succeed in this competitive environment.
- The competitors have already developed their network to provide them with different types of services, beginning with DSL/Radio, etc.
- Price The price of a rival fluctuates.
- If offerings are not upgraded at an enterprise stage, ASL will lose its goodwill.
- The business could lose its way from the market if we do not take the appropriate steps.
- Free internet access at the directors' residence
- Company free installation plus

**2.5 Organizational Structure [Rf:1]**

We maintain safe WAN connectivity for our customers across regular security devices. BDCOM is still based on service quality and stability, the two main WAN connection requirements.

BDCOM has developed a network on 493 Thanas out of 509 countries with the approval of BTRC for the provision of Domestic Data Communication. We have a proposal to enlarge the majority of the country's districts by this year.

**Dedicated Optic Fiber & Broadband Internet**

Enterprise Fiber Optic & cellular broadband provides the corporate class with mission-critical networking criteria for remote businesses as well as small and medium-sized enterprises. This is enabled by industry-leading SLAs and a vital mission service to

provide a cost-effective service to consumer and business clients.

Customer Service – Customer support in order to fulfill the company's needs.

- Live support Dedicated
- Field distribution expedited on the same day
- Stick to the field repair goal also after hours, weekends, and holidays
- Account Manager Committed
- Help for email.

## CHAPTER 3

### TASKS, PROJECTS AND

### ACTIVITIES [Rf: 1]

#### 3.1 Daily Task and Activities

Daily task and activities in my internship are described month wise give below:

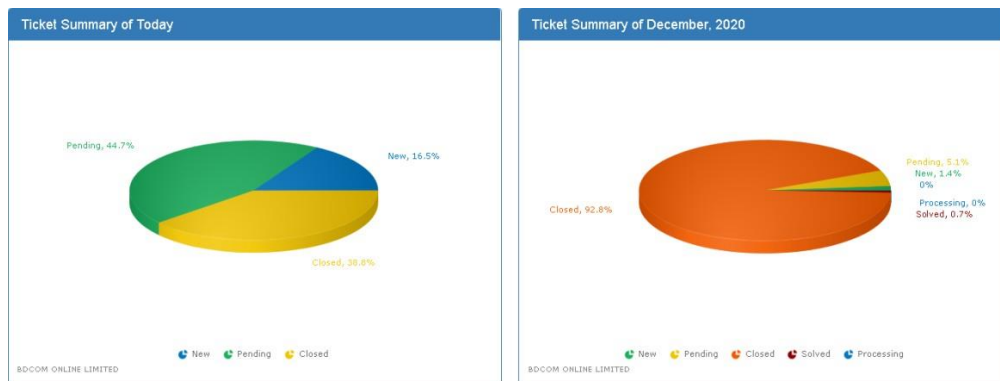


Figure 3.1: Daily and Month Tasks Summary

**First Month:** After Start my internship on BDCOM Online Ltd in first month I have learned:

- Fiber Optic.
- Power Over Ethernet.
- Media Converter.
- Basic Router and Switch.

**Second and Third:** In Second and Third Months of internship I have learned the following tasks:

- Network Layer and Design.
- LAN and WAN.
- IP Address.
- Ports, File System.
- NOC Support System.



**Fourth:** In the fourth month of internship i have learned the following tasks:

- DNS and other Server
- Router and Switch Configuration.

### 3.2 Events and Activities



Figure 3.2: BDCOM Home User Monitoring

- Network System Monitor.
- Client Information Setting.
- Troubleshooting
- Checking of System Utilize
- IT Suggesting.
- Support Remotely or Physical in Client and POP End.

### 3.3 Project Task and Activities

The task is the same as associate degree activities; some say that a task is a work package that can encompass one or a number of activities, and in order to construct items that are more complicated, most project manager clusters of associate degrees think that the

former assertion is only correct when inverted: activity is the work package and can include one or more projects.

### 3.4 Introducing with Networking Devices [Rf:3]



Figure 3.3: Connector

Hardware devices that are used to link computers, printers, fax machines, and other electronic devices to a network are called network devices. These devices transfer data in a fast, reliable, and correct way over the same or different networks. Network devices can be inter-network or intra-network. Some devices are mounted on the device, like the NIC card or RJ45 connector, while some are part of the network, like a router, switch, etc.

### 3.5 Fiber Optic and Power Over Ethernet

#### Fiber Optic



Figure 3.4: Fiber optic

The fiber of glass means medium and hence the technology for transmitting data on a glass or plastic strand or fiber, as light-weight pulses. A fiber optic cable comprises a variable spectrum from one to two hundred glass fibers. Another layer of glass called protective shielding is the close of the fiber optic heart. The protective coating is covered by a sheet called the buffer tube, and the jacket layer works because of the final protective strand layer.

### **Power Over Ethernet**



Figure 3.5: Power Over LAN (PoE)

Power over LAN or author explains one of the standardized or ad-hoc schemes that integrate wattage with LAN cabling expertise. This allows a single cable to provide each wattage and association with devices such as wireless access points or cameras. Not like the Universal Serial Bus standards that allow long cable lengths in addition to power devices over the information cables. Power is often carried on the same drivers since information or power is passed inside the same cable from dedicated drivers.

### **3.6 Media Converter**



Figure 3.6: Media Converter

Media converters are versatile and inexpensive instruments allowing fiber connections to be introduced and optimized across all network types. The most popular type of media converter is the unit that acts like a transceiver to transform the electric signal used by copper Twisted Pair (UTP) cables into fiber-optic cabling light waves.

Fiber optic connecting is expected where the propagation distance of copper cabling exceeds the distance between the two network devices. Conversion from copper to fiber using media conversion systems allows two copper ports network devices to be linked by fiber optical cabling over extensive distances.

### **3.7 Design of Network and Layer [Rf:5]**

#### **Design of Network**

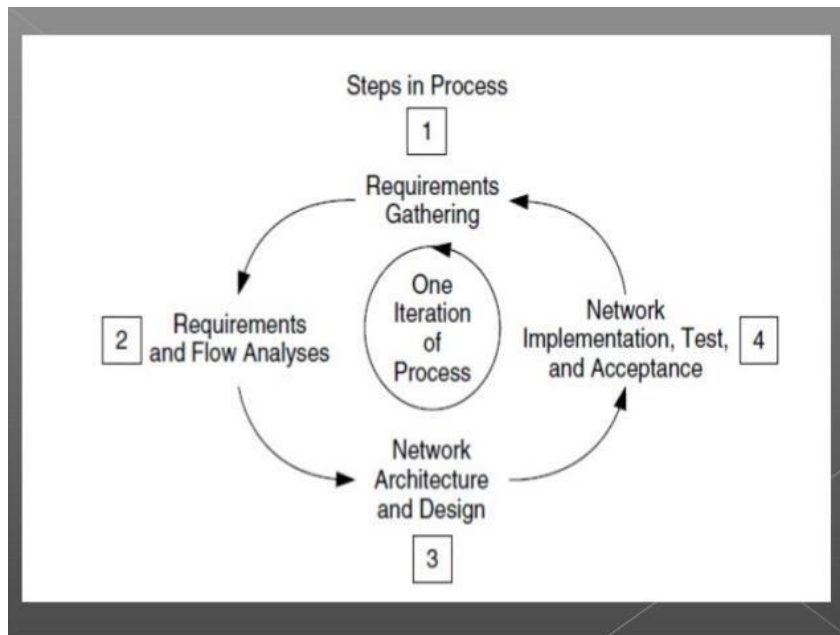


Figure 3.7: Design of Network Process

Your computer network helps or builds on all your computers, programs, apps, and devices. Therefore, the company needs to be a top priority in the design, design, purchase, and security of a business computer network.

You need to look at a variety of things to create a computer network for your business. The computing network is somewhat different from creating a home or household network in an effective business environment. Complexity and security issues are strong in the conception of enterprise networks. Depending on your business needs, creating the right network for your organization.

For designing a network against any criteria you can use the following eight steps architecture approach. And have full detail and method for designing any network.

- Recognize Consumer desires
- Describe the current Network
- Project networking & topology Solution
- Plan the network installation
- Create a network prototype
- Full concept guide
- Apply the sign

- Check, track, and alter as necessary.

## Backbone Network Design

Want to follow a few rules or steps to build a network that makes a network more economical and delivers high quality. A network built has some objectives

The measure previously mentioned.

- Scalability.
- Attainable.
- Security.
- Power of management.

An design to allow each stability and development should be built to achieve the specific goals of a network.

Hierarchical networks have several flat type blessings. The positive news is that the native traffic appears to be indigenous. Traffic is moving to multiple networks only and rapt to a better layer. Layer-2 devices allow for the control of transmissions or to filter unnecessary traffic.

When many sensors and apps calculate squarely elsewhere in a flat network, reaction times deteriorate until the network is unusable.

Holding it higher than we can use the hierarchy in the style of our ideal network.

## Network Layer

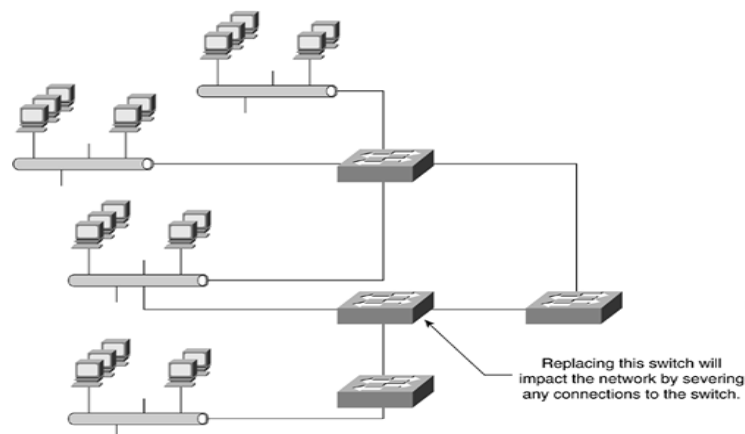


Figure 3.8: Hierarchical Network Layer

There are three levels used for the hierarchical network model. There are layers of

1. Core
2. Distribution
3. Access

These layers also refer to the network's physical structure. The Access layer is the network edge of the communication of host devices. It protects workstations and printers. Here often connect gadgets that expand the network, including phones and connection points.

The Distribution layer is a multifunctional layer. In specific, access layer traffic must be aggregated and transferred to the rest of the network. There are potentially a lot of network access layer switches. Any of these switches has connections to the layer of delivery switches. The distribution layer consolidates multiple terminal machines through access layer switches.

The kernel of the campus network is the Core layer. Both delivery blocks are interconnected. The core layer has one goal and requires a few characteristics. No security protocols, no QoS, or endpoints are linked.

### **3.8 LAN and WAN**

#### **LAN**

The local area network is a community of computers and related equipment, which share a shared line of communication or connect with a server or a machine through a wireless network. In general, a LAN contains computers and peripherals attached to a server within a certain area, like an office or a business facility. Computers and multiple mobile devices share services like a printer or network storage using a LAN association.

## Local area network (LAN)

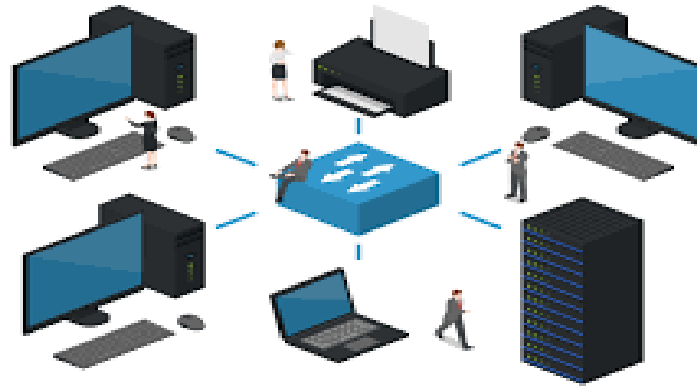


Figure 3.9: Local Area Network

Here is a limited connection using a workstation, which is called the Local Area Network or LAN node. And the LAN has internet access.

### LAN setup

1. Pick Network Configuration from the main menu and LAN Setup from the browser app device menu. Set-up screen will display LAN knowledge science.
2. Enter your router's scientific address (factory default: 192.168.1.1). Certify that there are many subsets to discuss the local port science discipline and the demilitarized port scientific discipline.
3. Join the Subnet Mask science discipline. In the networking science discipline, the mask determines the network variation aspect of the part of the Associate. The subnet mask assisted by the scientific address that you allocate can be determined by your router mechanically. Using 255.255.255.0 as the subnet mask computed by the router, unless you enforce subletting.

### WAN



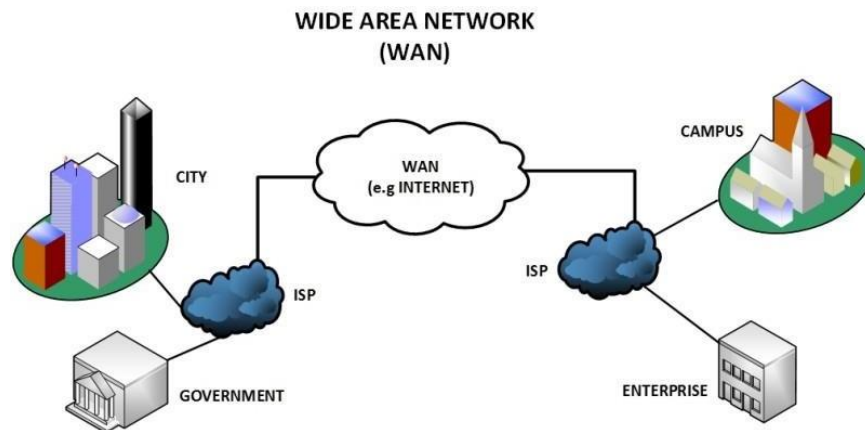


Figure 3.10: Wide Area Network

WAN Internet network consists of a branch office, and each office has several workstations. The network is a wide region.

BDCOM offers Layer 2 & Layer 3, IP VPN Wide Area Network (WAN) wireless networks, Internet Connectivity, and VLAN (Virtual LANs). For its customers, BDCOM promises safe WAN communication across regular security equipment. BDCOM is still based on service quality and stability, the two main WAN connection requirements.

### 3.9 IP Address

In a data network, the two most important tasks are:

Any host or machine or computer involved in the network should be defined specially.

That's what the addressing is called.

To link and transfer data packets through all network devices. Switching and routing also are named by linking computers to switches and routers.

An IP address and a Subnet Mask are very fundamental computer network entities.

The IP address is a 32-bit integer like the binary number 110000001010000000000001 or the decimal number 3232235777. It is then written in a binary form in 4 sections such as 11000000.1010100000.00000001 and in a decimal form in 192 168.1.1. It's more clear in this context.

During my internship when any issue come to us, First we need to check that link P2P

point to point okay or not. So i have to know what is the ip and gateway address  
suppose with issue i have 110.254.70.137/30

So now I have to find what the ip and gateway, Bdcom normally use add number as  
gateway and even as ip address.

Here /30 subnet musk so we have 4 available host 2 useable, So we have

110.254.70.136

110.254.70.137(Gateway)

110.254.70.138(IP)

110.254.70.139

Now, I can ping 11.254.70.138 for check my P2P link okay or not.

### 3.10 DNS and DHCP Server [Rf:5]

You need to customize the DNS on your router or device to open internet sites or to get  
connections to network hosts by area calls. The only choice of router setup, such that  
DNS addresses are supported by DHCP servers.

#### Domain Name System (DNS)

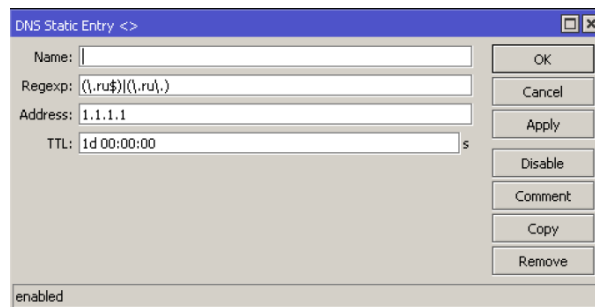


Figure 3.11: Domain Name System

If a device needs to connect to a device but only knows its name, it may request the IP  
address of the intended target device with a hostname from the machine installed by the  
program “DNS” (Domain Name Service).

Each DNS server provides information about the components of the network of an entity.

It also maintains track of specialist device addresses, such as e-mail servers, that the world wants to find. The DNS server is not simply an isolated directory service. If a sending device has to identify the address of a device that belongs to another entity, the DNS can find the appropriate DNS server in some area of the internet so that you can have the IP address information for the appropriate target device.

### Dynamic Host Configuration Protocol (DHCP)

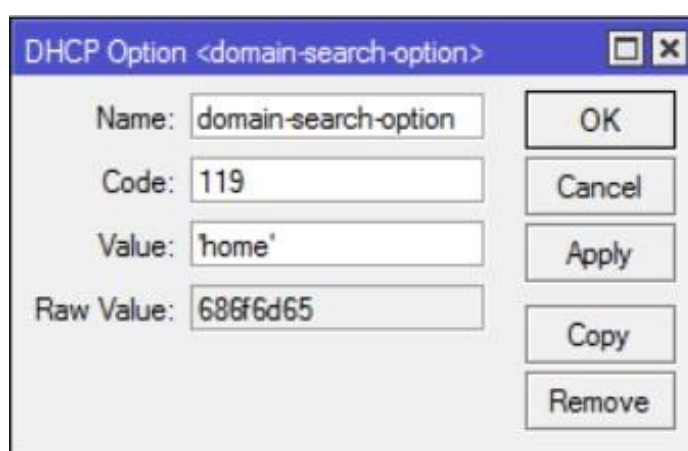


Figure 3.12: Dynamic Host Configuration Protocol

The use of DHCP servers greatly decreases administrative efforts to allocate, assign, not assign, and manage IP addresses, and companies are not able to use DHCP these days.

Two forms to allocate an IP address to a network computer are possible:

- One approach is to manually enter the system administrator from the right address field into the configuration of the device from the network administrator.
- The other approach to customize each interface is to allocate an IP address from the network's corresponding address set as it links to a network machine running the DHCP server program.

### 3.11 Router and Switch [Rf:3]

#### Router



Figure 3.13: Router

If a device in an area network needs to communicate with a device on another LAN, it must transfer the traffic to a LAN-connected specialized device called a "router," with the goal of determining the most suitable way for the message to reach the requested destination device and of transmitting that message along that path.

For the billions of devices on the Internet to find each other, routers must communicate frequently using protocols to allow routing information to be exchanged so that routers coordinate to decide the best way for the message packet to arrive at the intended target device if a device wants to send a message to a target device.

A special routing protocol is designed to connect each router port with the port function. For example, a router port with an Internet link must understand how contact messages can be effectively routed to destinations worldwide. Protocols that make this simpler are known as the protocol for "gateway routing protocols" An organizational router port that connects to the internal networks of an organization must learn how to configure the organization network to efficiently move across the organization.

## MikroTik Router [Rf:4]



Figure 3.14: Mikritik Router

Mikrotik routers transform an efficient group router into a normal computer port. Upload favorite group pc interfaces to enhance router skills. Remote control and simple home windows utilities for modern times (Winbox).

- Superior service management nice with burst support
- State complete p2p scanning firewall, tunnels, and IPSec
- Move by way of filtering skills
- The functionality of vocabulary and virtual ape
- Play and plug-in hotspot
- Rip, OSPF, protocols for BGP routing
- Ethernet prepared for Gigabit
- Sync assist V.35, x.21, t1/e1
- IP-Phone
- GUI Admin Remote Winbox
- Serial console Telnet admin /ssh.
- Setup and tracking in real-time

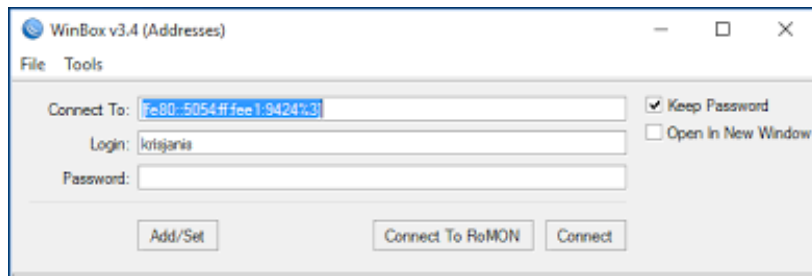


Figure 3.15: Mikrotik Open In Winbox

Step1: Opening winbox>tails >simple queues > pressing >call=tail=tail>goal deal=19216805 ( n.b: your lan site ip in case you want to govern bandwidth against of unique laptop or unique ip). Upload aim, max limit=512k, download goal, max limit=512k > add >good enough.

Step2: Winbox open > queuing > queuing > plus > name > aim deal with = 192.168.0.5. Step2 (and your lan website ip in case you want to manipulate bandwidth against of particular computer or unique ip). Upload goal, max limit=512k, download aim, max restrict=512k>apply>appropriate.

## Switch



Figure 3.16: Switch

A switch is a system that links other computers together in a computer network. A switch to allow connectivity between various networked devices is linked to multiple data cables. Switches control network data transfer only through one or more computers for which the transmission would be intended by transmitting a received network packet. A

network address may be used to identify each networked system attached to a switch so as to allow the switch to direct a traffic stream that maximizes network protection and performance.

An Ethernet center, which essentially retransmits packets from each port except for the port to which the packet is sent, cannot differentiate between separate receivers and achieve lower network performance overall, makes a transfer more knowledgeable.

An Ethernet switch will be used to create a different collision domain for each switch on the data link layer (layer 2) of the model. Every switch-to-port system will be able to forward the data to other ports at any point and transmissions won't be interfering.[a] The newly developed network parts remain a broadcast domain as broadcasting is already transmitted to all connected devices through a switch. Switches can also operate on higher OSI levels, like network layer and higher. A multilayer transfer is regarded as a system that often deals with these higher stages.

### **3.12 NOC Support System**

The key role of NOC is to control all the links in order to accomplish these functions. NOC uses network output management software such as solar wind for monitoring purposes.

The NOC engineer monitors and carries out the everyday operating tasks necessary for IT services and IT infrastructure support. For central location or distant concerns, the NOC engineer controls large data networks and servers. Typical NOC engineering practices include:

- Events review
- Perform problem-solving and device reaction
- Communicate with website technicians or with the settlement third parties
- Track problems before they are fixed.



Figure 3.17: Key Activities

- Systems monitoring. The use of various methods to track computer systems' efficiency and ability.
- Problems troubleshooting. Working to solve the problems in your specified fields.
- Stuff to track. Monitor all failures and resolutions through a specified ticketing system and record them in depth.
- Incidents in the filing. Complex management challenges, other IT capital, third parties, and/or manufacturers should be exacerbated.

### 3.13 Winbox

It's much better to handle Mikrotik with Winbox than with CLI. Winbox is an Interface software for the control and setup of the Mikrotik router.



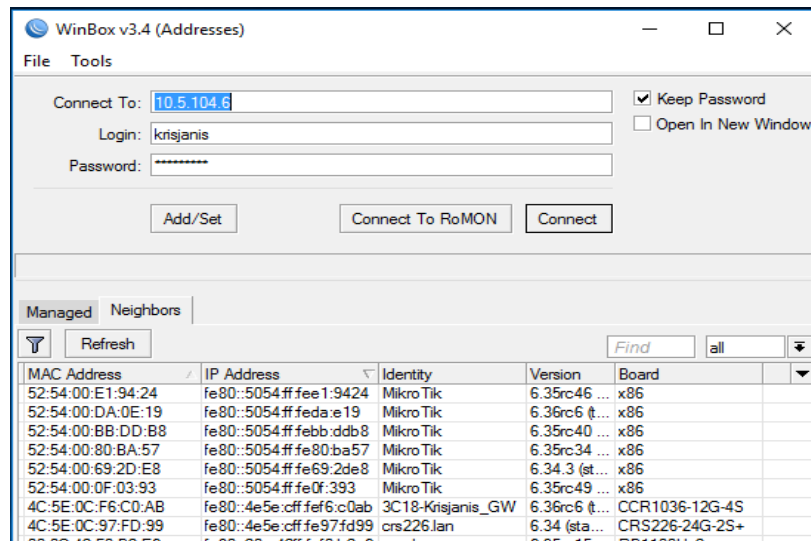


Figure 3.18: Winbox Interface

Please click on three points once you receive and run winbox, it should view all Mikrotik devices open. Just fill in the username and the password and press connect. Just click MAC address. If you have a PC on the same network, use an IP address rather than a MAC that works better and your RouterOS update would also be far more reliable.

## Translation of Network Address (NAT)

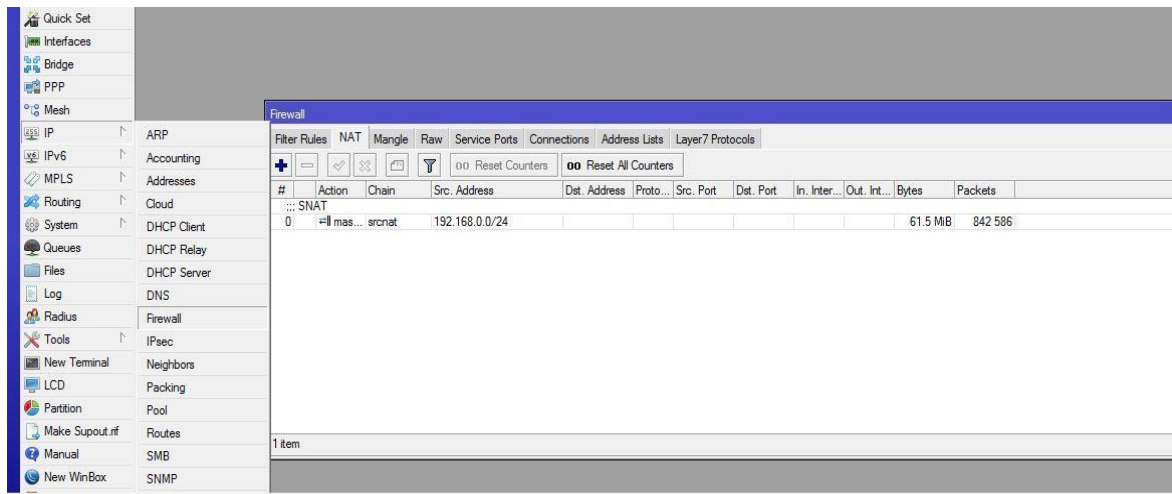


Figure 3.19: NAT in Winbox

Since we prefer to use units locally and internationally, we have to organize cover-ups, so that our device arrangement is protected by ISP IT address. That should be along such lines as ISP does not realize what addresses are advancing {neighborhood |LAN PC network} and the worldwide machine will not address our LAN.

### File System and Port Numbers

The folder/directory hierarchy is handled in the file system, and folders are indexed. The syntax used for the "path" of the files is also specified. File systems define the names of files and the overall file size and storage space to manage. See file names and routes.

Many file systems are in use, for example, FAT32, exFAT, and NTFS are used in Windows while FAT32, exFAT, HFS+, and APFS are employed for the Macs. Extend2, ext3, FAT32, and exFAT are included in Linux. UFS, ext2, ext3, and ZFS are found in Unix systems. See file logging system (FAT32, NTFS, APFS, HFS, NFS, UFS, ext).

### 3.14 Challenges

During my monthly position and to exchange companions accompanying the cheerful winds of the hour, I have found that there are widespread issues in under-studying. I have

never encountered great challenges. I assume that these are the three aspects of the assistant: unpaid/under, temporary, and they have an issue with preparation. Insufficient work in some cases: I've had insufficient work. I'm overused, underused. I'm underused. More work: because assistants are glad to put a foot in the inside.

## CHAPTER 4

### Competencies Earned

#### 4.1 Competencies Earned

Understand the value of partnership building and of building a network of practitioners. I learn the advantages of linking my company both internally and externally and explore networking skills.

Networking is about creating relationships to receive advice, knowledge, coaching, expertise and encouragement in my career. It is about social experiences. I can learn how to make a good impact, how to develop business relationships and how to build trust.

#### 4.2 Smart Plan

In order to prosper, any organization should have an intelligent strategy. In theory, some common mixture items build an intelligent strategy.

BDCOM provides the value-centric service industry for both domestic and foreign markets and is an architect for high-value end-to-end ICT technologies.

BDCOM has more deployments, developers and technology know-how than any other Data Exchange player on the market. The financial strength of BDCOM, its proven management team, the strong solution pipeline and its diversified sales base will boost BDCOM's outstanding position as the leading wireless connectivity delivering data communications solution provider.

#### 4.3 Reflections

Networking is not a modern field of computer science and engineering any more – the Internet has evolved as a discipline and the core technology that it serves.

BDCOM is a trustworthy name for National Wide Web-service, Secure Data Access and

Device Convergence and Managed Services (IP Telephony Services). Along with these software growth, flower management and vehicle monitoring, IT infrastructures, BPO and many others are supported by BDCOM's home. I therefore believe that I have to regard myself as the Internet civil engineers in my internship building knowledge and skills in particular, enabling us to understand and upgrade a large, vital infrastructure.

## **CHAPTER 5**

### **Conclusion and Career**

#### **5.1 Discussion and Conclusion**

The internship helped me to create a network with the business community. The primary goal of the internship is to introduce the pupil to the workplace. BDCOM Online Ltd. is an intern in network operations. I've learned to give myself to work. Dedicated and thoughtful work in such a high-profile setting is the most important thing. It's not about a formal thing. The work output of engineers is often related to the workflow of engineering or technological firms.

For national broadband, secure data access, computer and convergence and management systems, BDCOM is a trustworthy brand. BDCOM's home serves IT facilities, BPO and several other programs as well as these device growths, flower management, and car control.

Throughout the whole internship I have learnt from my supervisors and colleagues too many valuable protocols and completed several tasks daily, building confidence to deal with my mission. It is an excellent way to take advantage of my experience and expertise. I have since taught how to deal with critical flaws and new concepts. This style of job is genuinely beneficial to my career and I want to be permanent.

#### **5.2 Scope for Further Career**

The networking market is currently in high demand and is one of the highest-paid industries of the IT industry. IT gives students a rewarding career. With each year that passes, IT rises enormously as an unquestionable king of engineering. But the fact that this stream is not unchallenged is not bad.

Networking engineers have varying scope and responsibilities. A key function is performed by a network administrator, responsible for running and managing the whole

wired system infrastructure. Many network administrators love their jobs regardless of the worrisome and complicated networks. In networking stuff typically work in a way that's very dry and cut in style. The challenging job well provides compensation, and today networking engineers still improve their comprehension of systems, networks, and software applications.

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## **APPENDIX**

### **Appendix: Project Reflection**

The key purpose of my temporary work in a specialist sense is the application of knowledge gathered within the classroom, viable answers to certifiable problems. In addition, the specialists have technically specific capabilities and links, how to handle new information skills, and how to determine how a strategy is to be created and formulated. Add to collaboration with other specialist managers. I follow acceptable management practices in order to fulfill the obligations of my entry-level job.

I have the main aim/vision of an organization to connect with partners, how power is shared, how decisions are coordinated, how an expert association knows its lifestyle, and its level of accountability and feedback. An evaluation of my temporary work manager's conclusion and the entry-level meeting at specific meetings provides an incentive to take an expert assumption. Temporary sessions to organize life in a worldwide society, management, and management, my blessing to use. my blessing.



