COMPUTER NETWORKING & IT SYSTEM ADMINISTRATION

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This report presents a partial fulfillment of the requirements for a Bachelor's degree in Computer Science and Engineering.

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APPROVAL

This Internship report titled "COMPUTER NETWORKING & IT SYSTEM ADMINISTRATION" submitted by "**JOBAYDA KHANAM, ID: 172-15-10127**" 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 *08-10-2020*

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I hereby declare that the internship report has been completed by me JOBAYDA Khanam, Israt Jahan, lecturer, Department of CSE supervision of Daffodil International University Computer Science and Engineering, Department of Daffodil International University.

I declare that neither the internship, the internship report, nor any part of the award of a degree or diploma elsewhere has been reported. I announced that I **Fareast Islami Life Insurance Company (FILIC)**, collect information from the book, and I declare that any falsification of information and materials from a variety of sources and Internet sites are not used in this report.

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ABSTRACT

Collection of devices that allow a network computer, server, someone else, network device, accessory, or other interconnected data exchanger. An example of a network is the Internet, which communicates with millions of people around the world. A server is a computer designed to process requests and provide information to another computer via the Internet or local network. Internetworking is the connection of computer networks through gateways and routers. There is various type of work in the network that is why also different types of server have. For Example- Network Design, Network Server, Router Configuration, VLSMs, Troubleshooting, easy subnetting, internetworking operating system, IP Addressing, Routing And Configuration. We call the exchange of data between multiple computers a network. We exchange data through a special computer that is the server computer and from that data is sent to another. There are separate computers used for servers such as web server, DNS server, proxy server, mail server, firewall, FTP server. Every network works differently because It is not possible to maintain core of a network. Our custom network is connected computer to computer by Local area network and resource sharing each other. we need to secure our information. so obviously need to know about the computer network and security.

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CHAPTER 1 INTRODUCTION

1.1 Introduction

This is the information technology age. Now a days a large number of people use internet technology all over the world and the server is not such an essential part. CCNA is a well known confirmation among COMPUTER system engineers. Full CCNA type Cisco guaranteed system partner. This is the essence of a recognized program architects for all sorts. It includes passage level system engineers, system management system pillow planners and system experts.

It is measured that more than 1 million CCNA Testaments have been offered since it was first run in 1998. The CCNA announcement system has been given a wide range of ideas. This makes it possible to get ready for the latest system development they are probably going to deal with.

1.2 Motivation

We call the network if two or more computers are bound and capable of exchanging data or information. We need to call some special PC servers when we want to increase the number of PCs and exchange data from one time to another. There are different types of servers that are why there are different types of work within the network. Patterns for network design, network server, router configuration, IP addressing, routing and configuration.

It is measured that more than 1 million CCNA Testaments have been offered since it was first run in 1998. The CCNA announcement system has been given a wide range of ideas. This makes it possible to get ready for the latest system development they are probably going to deal with.

1.3 Objectives

✓ Computer science internships are designed to provide students with work 8experience while still in school, equating academic training with work experience, and helping students transition from work to classroom. Combine the skills found there for writing each unique resume purpose.

- \checkmark To make employers efficient
- \checkmark Learn how to work and lead the team
- \checkmark Continuously develop work energy and attitude.
- \checkmark That's all there is to IT and networking systems \checkmark Have a good idea of how networking works in all areas.
- \checkmark Learn all kinds of router configurations.
- \checkmark Learn the responsibilities of an IT officer.
- \checkmark Will have good skills professionally.

1.4 Introduction to the company

Fareast Islamic Life Insurance Company Limited Dhaka, Bangladesh is the largest company. **Fareast Islami Life Insurance Company Limited**, a direction 3rd propagation company in the insurance branch, created its operations May 29, 2000. It was certified public limited company under the Certificate Companies May 29, 2000. Listed with Exchange.

1.5 Report Layout

In Chapter (1) I expressed the motivational purpose of internship, internship from company , Introduction.

Chapter (2) I have explained my internship procedures. This chapter provide info about where internships have been attached to undertaking this program. About how, internship work did not execute include about the company, what is IT services and what is the role in computer networking and security work market. 8

In Chapter (3) I described the daily work and activities, events and challenges.

Chapter (4) I have explained the competition is earned, smart plan, reflection.

In Chapter (5) I have described there are no conclusions and future opportunities. And the conclusion of the writing

CHAPTER 2: ORGANIZATION

2.1 Introduction

Fareast Islami Life Insurance Company Limited, a leading 3rd generation company in the insurance sector, started its operations May 29, 2000 and was certified as a public limited company under the Certificate Companies Act on May 29, 2000. Listed with Exchange.

At present the authorized capital of the company is Rs.1000 crore and the paid up capital is Rs.747.42 million. As of December 31, 2018, the total number of shareholders was 8,066. The shares of the company have been traded on both the Dhaka and Chittagong stock exchanges of the company from the very beginning. The total market value of the company's shares is Rs 723.74 million as on 31 December 2018.

The financial performance of the company is very strong and positive. As on 31st 8December 2018, the total assets of the company stood at Rs. 33,329.26 lakhs and Rs.

2.2 Product Plan and Marketing Situation

In various operations Fareast Islamic Insurance Company Limited, the main function being briefly-described work:

- ✓ Ekok Bima
- ✓ Sarbojonin Bima
- ✓ Group Bima
- ✓ Child Protection
- ✓ Hajj Bima
- ✓ Retirement Plan
- ✓ Fixed Deposit
- ✓ Payment Endowment Assurance Plan
- ✓ Money Back Plan
- ✓ Monthly Saving plan

M-Insurance

IDRA has informed the policyholder about the information regarding the Short Message Service (SMS) policy established to comply with Fareast Islamic Life Insurance Company Limited (FILIC). SMS are usually sent to policyholders using the Creating messaging system within three days of confirmation of payment. Confirmation of policy payments, payments, maturity and other related information due to date is usually sent via SMS.

Data Center

Security Measures to improve the new surveillance system, the Access Control System Head Office with Fingerprint has been implemented in all departments everywhere. The maintenance and newly established data center is run by the IT department. Maintenance and expansion of existing servers, networks, cooling systems, power systems, surveillance systems is properly managed by skilled engineers in the IT department. To ensure a reliable and secure environment, Data Center Security is equipped with eminent Cisco firewalls, core switches, access level switches, routers, etc. connected to the data center of all departmental offices, service centers & zonal offices and connected to the data center.

Near Data Center (NDC)

For growth, it has set up Services and Extra Near Data Center (NDC) in Narayanganj. The continuity of business during the bad times including restoration of all IT services over time has been considered during the establishment of this NDC. Unnecessary services Unnecessary capacity has been considered for ensuring cooling, connection etc. World class hardware, network, power, surveillance systems have been installed to satisfy the demand.

2.3 SWOT Analysis

88SWOT analysis means understanding your strengths and weaknesses, and for identifying both opportunities you can open up to the threat faced. **Strength:**

Strong Board of Director: The Board of Director of that insurance is stronger of than other company.

Top Management: The top management of the Fareast Islami Insurance Co. They contributed yearly towards the growth and development of the company.

Market Value Statement: Detailed market value will be displayed in the workplace report of the appraiser from a market for the share price. This may be the difference between the low price and the value of the books in the shares of a consultant. Contact higher market price guidelines Inferior material is made for equals

The value of a single market of communication, Rs 4723.74 million, the price of a single book, Rs 747.42 million, the resource test, December 2018 31, added Rs 3,976.32 million as tax, the price of Rs 4,595.69 million in 2017.

The employers of Fareast Islamic Insurance Company are limited as many insurance companies, trade business market is very stable business person, mobile SIM company etc.

Weakness:

This weakness of Fareast Islamic Insurance company limited is the key weakness for the limited company to push the insurance for lagging behind other competitors.

- 1. Efficiency New tract ablation is required for flat market
- 2. Large sums of money need to be set up in the business
- 3. Contact for small resources
- 4. Many price tariff and location options Advertised are -
 - ✓ Billboard: There are have some Billboard of Fareast Islamic Insurance company limited. It's not enough for marketing performance.

Opportunity:

- 1. Population change age structure
- 2. Increasing the number of UK families
- 3. Simple duty introduction
- 4. Modification of regulatory structures

Threats:

Economic Crisis - Households are less likely to trust the digital-communications market as their broadband subscriptions make up for the lack of a stock market. It remains to be seen how far consumers will have access to the internet. There are many insurance companies in Bangladesh that can be persuaded to accept. But Fareast Islamic Insurance Company relies on Islamic insurane systems. Conflict is a part of life. It has a negative side as a positive aspect of a reality conflict. Negative side conflicts are bad. Bad conflicts are detrimental to the organization and must be avoided. Negative consequences from conflict can be devastating

2.4 Organizational Structure

Chairman
Vice Chairman
Director
Independent Director
CEO
Chip Consultant
Deputy Managing Director & Chip
Financial Officer
Assistant Managing Director
Senior Executive Vice President
Executive Vice President
Joint Executive Vice President
Senior Vice President
Joint Senior Vice President
Vice President
Joint Vice President
Assistant Vice President
First Assistant Vice President
Senior Executive Officer
Executive Officer
Senior Officer
Front Desk Officer

Officer

Figure: 2.4 Organizational Structure of fareast islami insurance company limited

CHAPTER 3 INTERNSHIP TASK, PROJECT AND ACTIVITIES

3.1 Daily Task and Activities

Daily Task and Activities

Month (1): first month of internship on fareast islami insurance company I learned , performed the following tasks:

- Learning & understanding about Network Components.
- Learning & understanding basic concept of CCNA.
- Learn how to connect local area network by using switching and hub
 Learning & Understanding different type of Router Configuration.
- Learning & understanding the level of router runnig.

Month (2): In second month of internship on fareast islami insurance company . I have learned and performed the following tasks:

- Router Setup:
- Router Software format.
- Router Password format.
- Basic knowledge about GMS(Global System for Mobile Communication)
- Basic knowledge of different types Router configuration and IP address

Month (3): In the third month of internship on fareast islami insurance company limited

performed the following tasks. All kind of router configuration

3.2Events and Activities

- . Maintain monitors and computer systems and networks.
- User set up is account, permission and password.
- Troubleshooting servers and routers.
- Troubleshooting local area networks and switches.
- Fixed network faults.
- Technical support for people using the network.
- 7 days from the administrator and monitoring of network usage.
- It offers solutions to business problems.
- Support the client on the physical steps of the phone or client end. Client Support over the phone or Physical move to client Ends.

3.3 Project task Activity

Purpose:

Use PC blue console cable to connect Cisco router or switch

Perform putty and connect to Cisco router or switch or switch using COM1 or PC's own COM port at 9600bps speed

Boot up the Power Cisco device and the device by looking at the console session verification terminal emulator.

Detected Cisco router and switch film IOS Purpose.

3.1.2 Identify what iOS version and feature currently running Cisco devices setup



Dipath of the textbox show blew display version command.

Identify what iOS version and feature currently running Cisco devices setup Dipath of the textbox show blew display version command.

```
outer#show version
Cisco Internetwork Operating System Software
IOS (tm) 3600 Software (C3620-IK9O3S7-M), Version 12.3(25), RELEASE SOFTWARE (fc1)
Copyright (c) 1986-2008 by cisco Systems, Inc.
Compiled Mon 28-Jan-08 20:16 by alnguyen
ROM: System Bootstrap, Version 11.1(20)AA2, EARLY DEPLOYMENT RELEASE SOFTWARE (fc1)
Router uptime is 23 minutes
System returned to ROM by reload
System image file is "flash:c3620-ik9o3s7-mz.123-25.bin"
This product contains cryptographic features and is subject to United
States and local country laws governing import, export, transfer and
use. Delivery of Cisco cryptographic products does not imply
third-party authority to import, export, distribute or use encryption.
Importers, exporters, distributors and users are responsible for
compliance with U.S. and local country laws. By using this product you
agree to comply with applicable laws and regulations. If you are unable
to comply with U.S. and local laws, return this product immediately.
A summary of U.S. laws governing Cisco cryptographic products may be found at:
http://www.cisco.com/wwl/export/crypto/tool/stqrg.html
If you require further assistance please contact us by sending email to
export@cisco.com.
cisco 3620 (R4700) processor (revision 0x81) with 60416K/5120K bytes of memory.
Processor board ID 24807256
R4700 CPU at 80MHz, Implementation 33, Rev 1.0
Bridging software.
X.25 software, Version 3.0.0.
2 FastEthernet/IEEE 802.3 interface(s)
32 terminal line(s)
DRAM configuration is 32 bits wide with parity disabled.
29K bytes of non-volatile configuration memory.
32768K bytes of processor board System flash (Read/Write)
Configuration register is 0x2102
Router#
```

The running iOS version is: System image file is "flash:c3620-ik9o3s7-mz.123-25.bin"

This is the actual image file name that is currently running on the router. This image name is very helpful in identifying this IOS version and feature

3.1.3 Configure VLAN, Voice VLAN, VTP and Inter-VLAN Routing

SB1DLSW, configure port Fa0/1-4 and Gig1/1 as trunk port. The range command greatly reduces the amount of repetitive commands you must enter when configuring the same commands on multiple SB1DLSW, SB1ALSW1 and configured for SB1ALSW2 on Trunking SB1DLSW, SB1ALSW1 and SB1ALSW2 Trunking port switch or router connected to the port is another. Trunk mode, and as the native VLAN trunking port all set assign VLAN 6. SB1DLSW date, configure ports Fa0 / 1-4 and Gig1 / 1 as a trunk port. When repetitive commands wide range command to configure multiple ports at the same commands reduces the amount you have to write.

SB1DLSW(config)#int range g1/1, f0/1-4 SB1DLSW (config-if-range) #switchport mode trunk SB1DLSW (config-if-range) #switchport native trunk VLAN 6 SB1DLSW (config-if-range) #exit On SB1ALSW1, configured port Fa0 / 1-4 as trunk port. SB1ALSW1 (config) #int range f0 / 1-4 SB1ALSW1 (config-if-range) #switchport mode trunk SB1ALSW1 (config-if-range) #switchport trunk native VLAN 6 SB1ALSW1 (config-if-range) #exit On SB1ALSW2, configured port Fa0 / 1-4 as trunk port. SB1ALSW2 (config) #int range f0 / 1-4 (config-if-range) #switchport SB1ALSW2 mode trunk SB1ALSW2 (config-if-range) #switchport trunk native VLAN 6 SB1ALSW2 (config-if-range) #exit To see the trunk port, use the following command:

```
SB1ALSW2#show interfaces trunk
```

3.1.4 Link to point T1 Configure point:

The point link point between a branch office and the headquarters site is a common architectural installation. This tab will discuss and demonstrate this WAN link configuration using PP and HDLC Level 2 protocols.

```
R1 con0 is now available
Press RETURN to get started.
R1>enable
R1#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
R1(config) #interface Serial0/1
R1(config-if) #encapsulation hdlc
R1(config-if) #no shutdown
R1(config-if) #end
R1#
$SYS-5-CONFIG I: Configured from console by console
R1#
%LINK-3-UPDOWN: Interface Serial0/1, changed state to up
R1#
$LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/1,
changed state to up
R1#
```

3.1.5 Configure point relays in multiple point frames

When it comes to hub and spoke technology, then most of those hubs are deployed with a single point in the multiple point interface. This lab discusses and demonstrates configuration and verification of multi-point frame relay interface.

```
R1 con0 is now available
Press RETURN to get started.
R1>enable
R1$configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)$interface Serial0/0
R1(config-if)$frame-relay map ip 10.54.123.2 122 broadcast
R1(config-if)$frame-relay map ip 10.54.123.3 123 broadcast
R1(config-if)$frame-relay map ip 10.54.123.3 123 broadcast
R1(config-if)$frame-relay map ip 10.54.123.3 124 broadcast
R1$$SYS-5-CONFIG_I: Configured from console by console
R1$$
```

3.2 Events and Activities

3.2.1 Configuring the static routing

The fact is that you will be intent on understanding the static steering that turns you into a CCNA, at best. Static steering is a center of innovation any system expert will get it. It is necessary to design a course from one machine in a system with the ability to statically bounce the following travel path to get that arrangement.

Example:

If you want to get the switch R1 for example 10.61.30.0/24 then R1 needs to know that you can get the neighborhood from R1 where the system is connected to the system 10.61.10.0/24 to send the switch traffic to the system requirements.

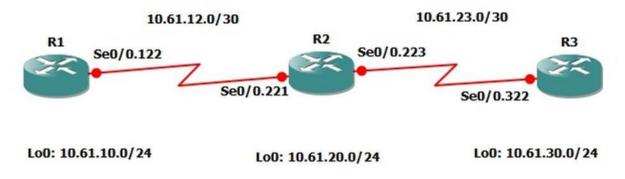


Fig: 3.2.1 Configuring the static routing

Code of configuring static routing:

R1#configure terminal Enter configuration commands, one per line. End with CNTL/Z. R1(config)#ip route 10.61.20.0 255.255.255.0 10.61.12.2 R1(config)#end R1# R2#configure terminal Enter configuration commands, one per line. End with CNTL/Z. R2(config)#ip route 10.61.10.0 255.255.255.0 10.61.12.1

3.2.2 How to configuring DHCP, DNS & HTTP Server along with Router:

1) Open the Cisco Packet Tracer.

R2(config)#end

R2#

 Click end device select PC (generic) & Server, select Switch (2960) and select Router (generic).

PCO		PCI	Server1	PC2
Switch0	RouterO	Switch2	Router2	Switch1
Server0		Router1		Server2

Fig 3.2.2 configuring DHCP,DNS,HTTP:

3) Now connection copper straight-through icon cable for pc to Switch & Server to Switch. Then Switch to Router. Router connection we use serial DTE. Then click end

device connect to the Fast Ethernet port to switch Fast Ethernet port and Router serial port to serial port. Then I put the server name DHCP, DNS, HTTP.

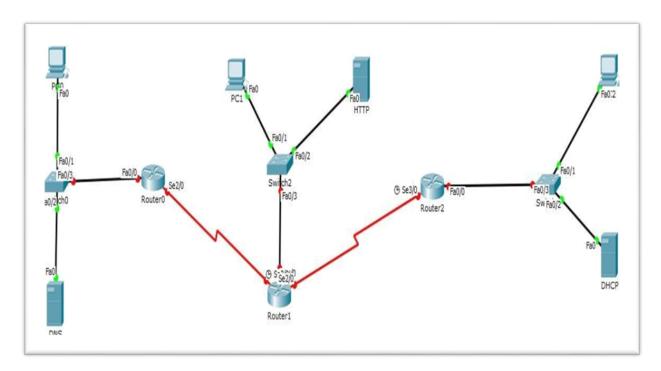


Fig:3.2.3 Connecting router, server DHCP,DNS,HTTP

4) Write the IP address for each PC, Server and Router.

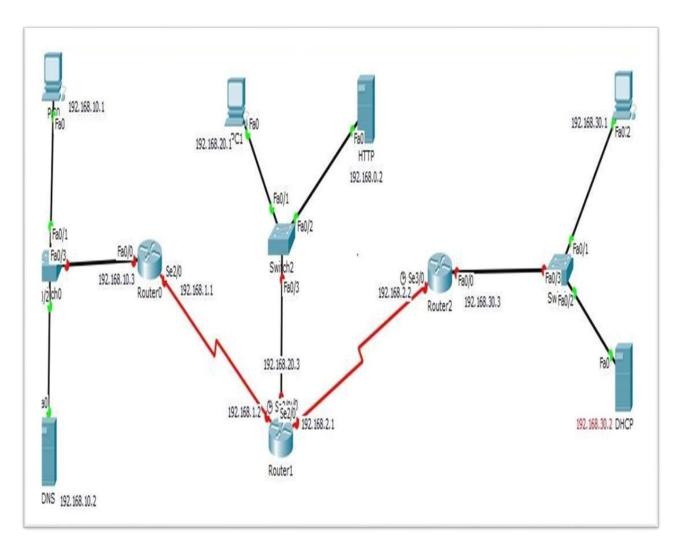


Fig:3.2.4 DHCP,DNS,HTTP IP address setting & subnetting

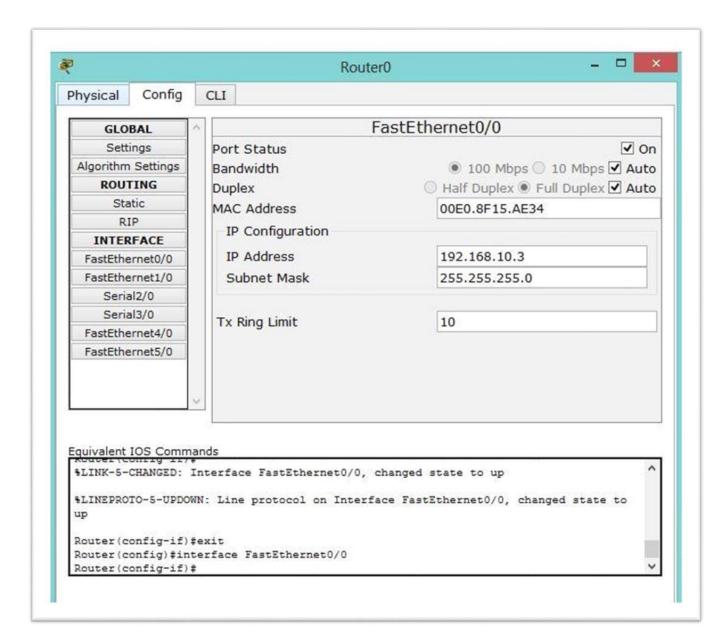
5) Now set the IP address and Subnet Mask. Click the end device select the config tab then FastEthernet0 and show the IP configuration and set IP address and Subnet Mask. Then click Desktop click IP configuration put Default Gateway.

	_	PC0	
hysical Config	Desktop	Custom Interface	
GLOBAL	^	Fast	Ethernet0
Settings Algorithm Settings INTERFACE FastEthernet0	O DHC Stat IP Adda Subnet IPv6 Ca O DHC O Auto Stat IPv6 Adda	ress figuration p tic ress : Mask onfiguration p o Config tic	 ✓ On ● 100 Mbps ● 10 Mbps ✓ Auto ● Half Duplex ● Full Duplex ✓ Auto 0060.470C.33D8 192.168.10.1 255.255.255.0 / 0:47FF:FE0C:33D8

As like other end device configuration IP and Subnet Mask.

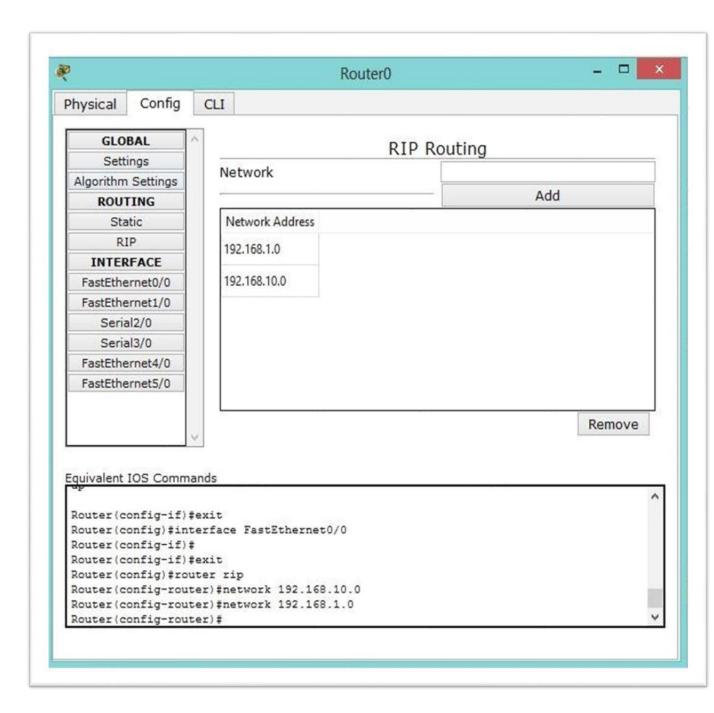
IP Configura	tion		Х
IP Configuration			
O DHCP	State	ic	
IP Address	192.1	68.10.1	
Subnet Mask	255.2	55.255.0	
Default Gateway	192.1	68.10.3	
DNS Server			
IPv6 Configuration DHCP O Auto Pv6 Address	Config ()		/
Link Local Addres	s FE80:	:260:47FF:FE0C:33D8	
IPv6 Gateway IPv6 DNS Server			

6) Now select Router and configure each port and put IP address for his own port.



Similarly configure all the Router.

Then go to RIP and add his own Network.



7) Now

Select DHCP server and configuration it.

Process select server – click config – put IP address & Subnet Mask. & go to Desktop - IP configuration & put Default Gateway.

Physical	Config	Services	Desktop	Custom Interface				
	-			EastEthernat0				
GLO				FastEthernet0	FR -			
	ings	Port Stat		@ +00.14	✓ On			
Algorithm Settings		Bandwidt	n) 10 Mbps 🗹 Auto			
	ernet0	Duplex		Half Duplex F				
		MAC Add		0005.5E2D.E5E	32			
		IP Conf	figuration					
		O DHC	Р					
		State	tic					
		IP Addr	ess	192.168.30.2	192.168.30.2			
		Subnet	Mask	255.255.255.0	255.255.255.0			
		IPv6 Co	onfiguration					
		ODHC						
			Config					
		State	-					
		IPv6 Ac						
		1 20.000		FE80::205:5EFF:FE2D:E5B	<u>/</u>			
			cal Address.	FE00205.5EFF.FE2D.E5D.	2			
25	N	1						

As like configure DNS & HTTP server.

IP Configurati	on astEthernet0
IP Configuration	
O DHCP	Static
IP Address	192.168.30.2
Subnet Mask	255.255.255.0
Default Gateway	192.168.30.3
DNS Server	
IPv6 Configuration	
O DHCP O Auto C	Config 🖲 Static
IPv6 Address	
Link Local Address	FE80::205:5EFF:FE2D:E5B2
IPv6 Gateway	
IPv6 DNS Server	

 Now go to DHCP server – desktop – IP configuration & put DNS server IP address in DNS server.

IP Configuration		Х
and a state of the	astEthernet0	•
IP Configuration	Static	
IP Address	192.168.30.2	
Subnet Mask	255.255.255.0	
Default Gateway	192.168.30.3	
DNS Server	192.168.10.2	
IPv6 Configuration		
O DHCP O Auto C	onfig	
IPv6 Address	1	
Link Local Address	FE80::205:5EFF:FE2D:E5B2	
IPv6 Gateway IPv6 DNS Server		

Again go to DHCP server and select services – DHCP – service on - put Default Gateway - DNS IP address & maximum number of users than click save.

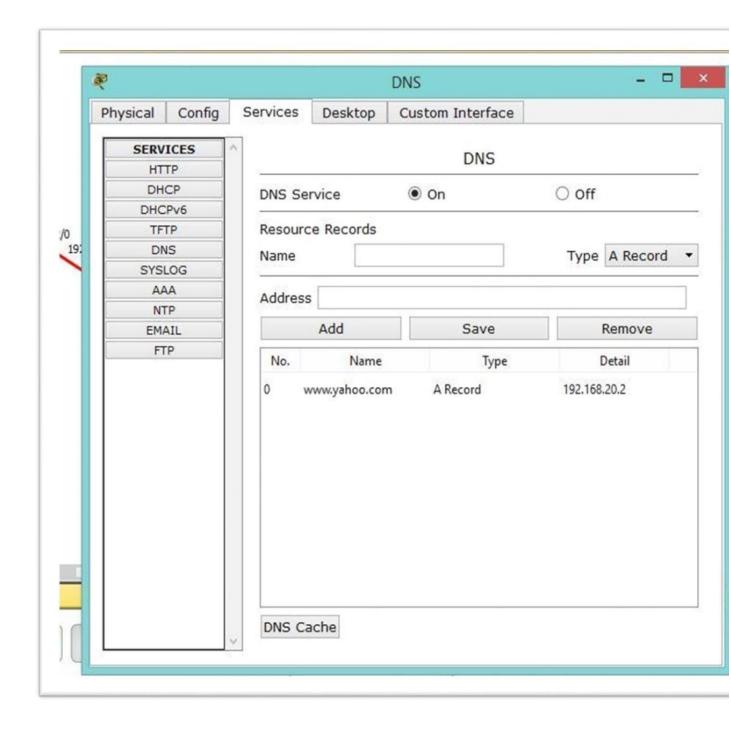
			DHCP							
Config	Services	Desktop (Custom Inter	face	1					
CES				DH	CP					
P				501						
	Interface	FastEthe	•	Service 🖲 On			○ Off			
	-									
	Pool Name	e			serverPo	loi				
	Default G	ateway			192.168.30.3					
1	DNS Serv	er								
>					102.100	1012				
IL	Start IP Address :						19	2 168	30	0
,	Subnet Mask: Maximum number of Users :						25	5 255	255	0
					10					
	TFTP Ser	ver:			0.0.0.0					
		Add		Save Remov				ve		
	² ool Name)efault Gatewa	DNS Server	itart	IP Addres	Jubne	t Masł	Max Use	er 📑	TFTP
		192.168.30.3	192.168.10.2	192.1	168.30.0	255.25	5.25	10	0.0	.0.0
										,
	P V6 DG L	P Interface V6 Pool Nam OG Default G DNS Serv Start IP A Subnet M Maximum TFTP Ser Pool Name	P Interface FastEthe Pool Name Default Gateway DNS Server Start IP Address : Subnet Mask: Maximum number of Us TFTP Server: Add Pool Name Default Gatewa serverPool 192.168.30.3	P Interface FastEthernet0 Pool Name Default Gateway DNS Server Start IP Address : Subnet Mask: Maximum number of Users : TFTP Server: Add Pool Name Pefault Gatewa DNS Server serverPool 192.168.30.3 192.168.10.2	P Interface FastEthernet0 V6 Pool Name Default Gateway DNS Server Start IP Address : Subnet Mask: Maximum number of Users : TFTP Server: Add Yool Name Pool Name Pool Name Pool Name Pool Name Pool Name Subnet Mask: Maximum number of Users : TFTP Server: Add Sa Pool Name Pefault Gateway DNS Server Image: Same Property Pool Pool Name Pool Name	P P V6 P V6 Pool Name Default Gateway Default Gateway Default Gateway DNS Server Start IP Address : Subnet Mask: Maximum number of Users : 10 TFTP Server: 0.0.0.0 Add Save Pool Name Default Gatewa: DNS Server itart IP Address ServerPool 192.168.30.3 192.168.10.2 192.168.30.0	P Interface FastEthernet0 Service V6 Pool Name serverPool Default Gateway 192.168.30.3 DNS Server 192.168.10.2 Start IP Address : Subnet Mask: Maximum number of Users : 10 TFTP Server: 0.0.0.0 Add Save Yool Name Jefault Gateway Pool Name Server DNS Server 192.168.30.3	DHCP Interface FastEthernet0 Service On Pool Name ServerPool Default Gateway 192.168.30.3 DNS Server 192.168.10.2 Start IP Address : 19 Subnet Mask: 25 Maximum number of Users : 10 TFTP Server: 0.0.0.0 Add Save Pool Name Pefault Gateway DNS Server itart IP Addres jubnet Mask serverPool 192.168.30.3 192.168.10.2 192.168.30.0 255.255.25	P Interface FastEthernet0 Service On Pool Name serverPool Default Gateway 192.168.30.3 DNS Server 192.168.10.2 Start IP Address : 192 Subnet Mask: 255 Z55 Maximum number of Users : 10 TFTP Server: 0.0.0.0 Yool Name Default Gateway DNS Server 10	P Interface FastEthernet0 Service On Off Pool Name serverPool Default Gateway 192.168.30.3 DNS Server 192.168.10.2 Start IP Address : 192 L Subnet Mask: 255 255 Maximum number of Users : 10 TFTP Server: 0.0.0.0 Add Save Pool Name Remove Pool Name Pool Name

Now select HTTP server – Desktop – IP configuration – put DNS IP address in DNS server.

hys	ical Config	Service	es Deskt	cop C	ustom Interf	ace		
Г.		-		di		r=		\sim
	IP Configu	ation						Х
	Interface IP Configuratio		thernet0					•
O DHCP								
(IP Address	1	192.168.20.2					
Ī	Subnet Mask	2	255.255.255.0					
	Default Gateway		192.168.20.3					
	DNS Server	1	192.168.10.2					
	IPv6 Configura	tion						
1	O DHCP O Auto Config Static							
Г	IPv6 Address Link Local Address							1
1			FE80::201:43FF:FE76:B18A					
	IPv6 Gateway							
	IPv6 DNS Serve	r 🔤						
LP'								

10) Select DNS server - services - DNS - DNS service on - name (put a web side name)

Address (put HTTP server IP address) – click add. 11) Now select PC – Desktop – IP configuration - put DNS IP address in DNS server.

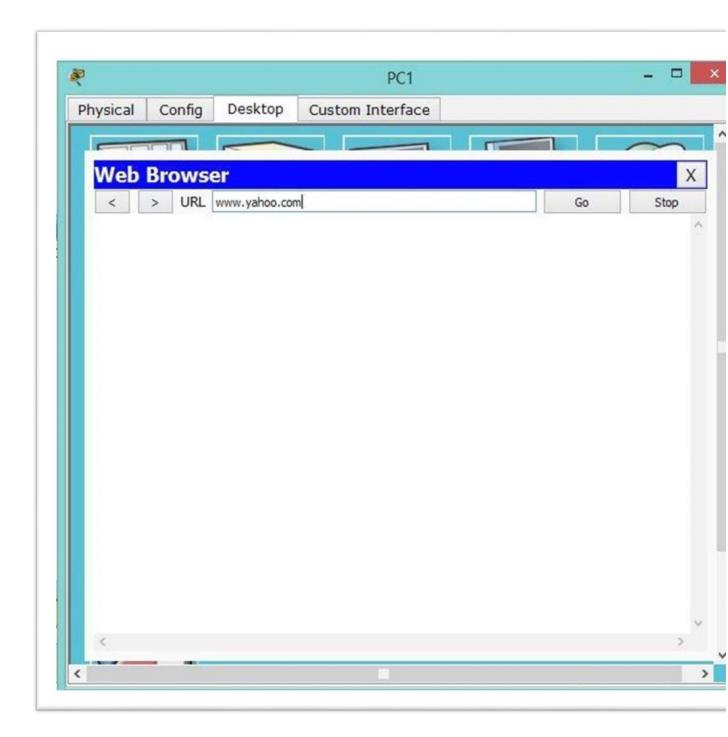


Now it is ready for search the address.

			PC1	
ysical	Config	Desktop	Custom Interface	
IP Co	onfigura	ation		X
	nfiguration	0		
O DHC	Р	Stat	ic	
IP Add	ress	192.1	68.20.1	
Subnet	Mask	255.2	55.255.0	
Default	Gateway	192.1	68.20.3	
DNS Se	erver	192.1	68.10.2	
IPv6 C	Configurati	on		
	P O Auto	Config 🖲	Static	
IPv6 A	ddress			/
Link Lo	cal Addres	FE80:	:250:FFF:FECC:2C0B	
IPv6 G	ateway			
IPv6 DI	NS Server			
				1
0				
50				

Select any PC - Desktop - Web Browser - put address.

Result:



Than it is successfully find the address. Than sent message it is received successfully.

2			PC0			- 🗆 🗙
Physical	Config	Desktop	Custom Interface			
	1.1.1					\sim ^
Web	Browse	er				X
<		http://www.yah	100.com		Go	Stop
		(Cisco Packet T	racer		^
	ignts					
Image Image						
Image	page					>

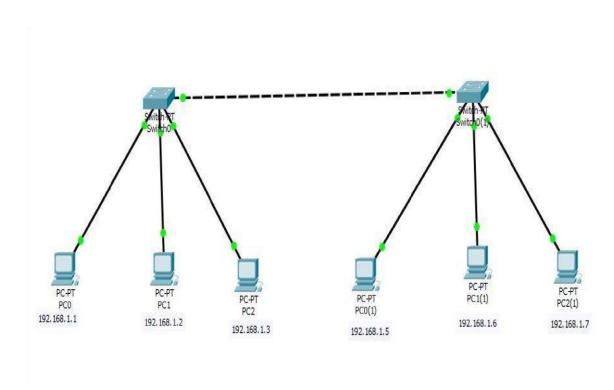
ire	Last Status	Source	Destination	Туре	Color	Time(sec)	Periodic	Num	1
	Successful	PC0	PC2	ICMP		0.000	N	2	
	Successful	DHCP	HTTP	ICMP		0.000	N	3	1
	Successful	DHCP	DNS	ICMP		0.000	N	4	
100					=			5	2

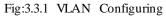
3.3 Project Task and Activities

3.3.1 VLAN Configuration

:

Write the IP address and Subnet Mask for each PC and Router.



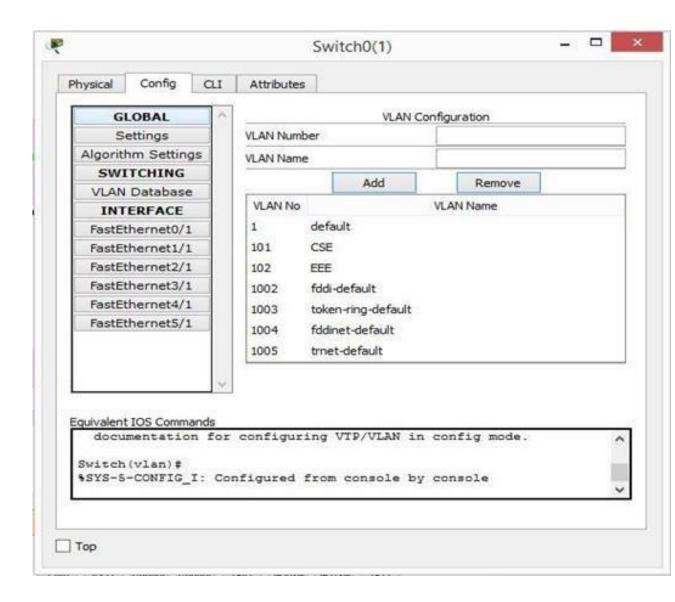


Now set the IP address and Subnet Mask. Click the end device select the Configure tab than FastEthernetO and show the IP configuration and set IP address and Subnet Mask.

Now select switch and Configure VLAN Database.

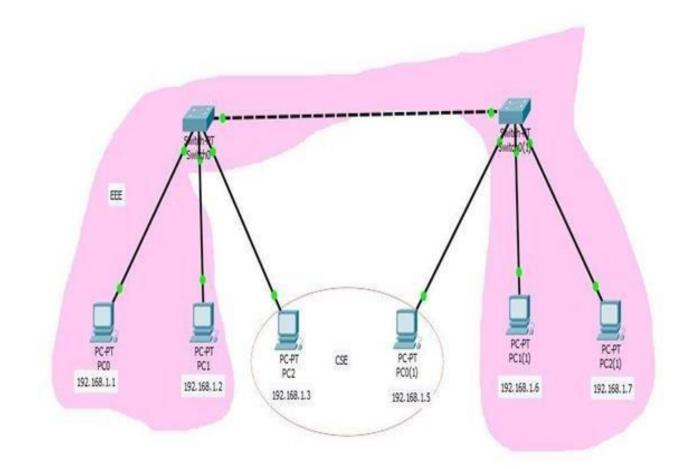
Select switch click VLAN database set VLAN number & name. I add

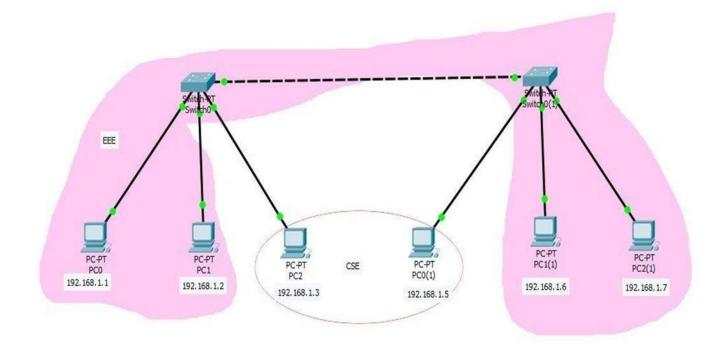
two VLAN Number & Name.



Firstly, VLAN Number = 101 VLAN name =CSE Secondly, VLAN number=102 VLAN name =EEE Hear I set PC0,PC1,PC1(1),PC2(1) = 102, EEE & other PC2,PC0(1) set =101,CSE

Such as:





Result:

Now select

PC1(1) to PC1 = Successful (They are same LAN) PC0 to PC2(1) = Successful (They are same LAN) PC1 to PC2(1) = Successful (They are same LAN)

Fire Last Sta		Destination	Type	Color	Time(sec)	Periodic	Num	Edit
G Succes	efil PC1(1)				i mura fa a ah	r crivers	194111	EUR.
	and Levis	PC1	ICMP		0.000	N	0	(edit)
Succes	sful PC0	PC2(1)	ICMP		0.000	N	1	(edit)
G Succes	sful PC1	PC2(1)	ICMP		0.000	N	2	(edit)

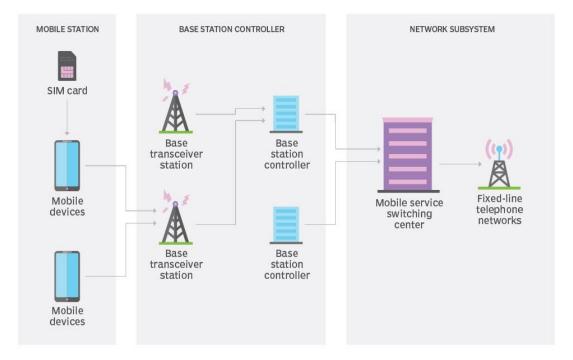
PC2 to PC0(1) = Successful (Same LAN) PC2 to PC1 = Failed. (Different LAN) PC0(1) to PC1(1) = Failed. (Different LAN)

							Rea	ltime	
Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit
•	Successful	PC2	PC0(1)	ICMP		0.000	N	0	(edit)
	Failed	PC2	PC1	ICMP		0.000	N	1	(edit)
	Failed	PC0(1)	PC1(1)	ICMP		0.000	Ν	2	(edit)
<									3

3.3.2 GSM (Global System for Mobile Communications):

A digital mobile network of GSM (Global System for Mobile Communications) such as European mobile phone users and more will be used. , GSM and L-Division Little Access (CDMA). The digitization of GSM and the connection of the article, then two more data streams, the slotting during the test is sent to the bottom of a chatlet It operates in the 900 MHz (MHz) one or 1,800 MHz frequency band.

GSM, in conjunction with the Principal, High Level Circuit Switched Poster (HSCSD), General Packet Radio Service (GPRS), Enhanced Post GTM Environment (PRAN) and Universal Mobile Telemetriston Hospital



Global system for mobile (GSM) network

Fig:3.3.2 GSM Networking System

3.4 Challenges

In case of hosting detection issues, you need to take the correct configuration as your computer networking hardware will not be able to send data and messages without an address. Smaller networks usually do not have because they can be easily configured via the manual addressing large networks, but this is a serious problem. When you create and maintain large domain controller, DHCP- and address of the server and software protocols are required.

One of the most important issues in any computer network is security, which usually involves protecting the network from denying (Dosa) service attacks, preventing unauthorized users from infiltrating, and maintaining network integrity. These network problems increase in size according to all network sizes. Larger networks are able to attack because they are more vulnerable points, which intruders can gain access to.

A small network usually has several thousand IP addresses with unique host names and one particular device is likely to conflict with another so you should add multiple routes so you can bypass a busy network problem. Larger networks, configuration conflicts and busy networks need to be dealt with because they are not going through too much traffic network.

About Wireless Router: A Better Router is a device that contains information about a Rater Karbali edit and a Better Access Point Karbali. Provide access to the Internet or private computer network Trust the customers and models used, it should work in an instantaneous network, a wireless address LAN's, or a mixed within its kid network.

CHAPTER 4 Conclusion and Future Career & Scope

4.1 Competencies Earned

Network and system administrators design, build, maintain, and secure local area networks that work quickly in challenging and challenging areas of technology. They design and support server systems and related software, as well as end-user support for all LAN-based applications.

Network Administrator is the gateway to computer network maintenance and cannot be contacted. Solution Project features include: Installing and configuring computer networks and systems. Complete solution with guidelines and any computer networks and systems.provision of an inclusion in the policy and description.

4.2 Smart Plan

Network and computer system administrators maintain this network for list-to-day operations. They install administration, and an organization's system including (LAN),support,(WAN), network part, Internet and other information communication organization. Every networking internship has an organization that does a good job of networking. If all organizations work well with smart planning, then they need to go out and move towards more brilliant arrangements. Smart plans are made using all experience and 8further forward skills.

4.3 Reflections

Shares of Fareast Islamic Life Insurance Limited started meeting on May 29, 2000 and the next limitation was 2005. Listed with Dhaka and Chittagong Stock Exchanges. Work with and gain fame. They use the latest technology and get the service upgraded when it is not needed. This is an experimental technology provider in the Monitoring Network Solutions Department to provide for state road networks and experimental solutions with testing.

CHAPTER 5: CONCLUSION & FUTURE CAREER

5.1 Discussion and Conclusion

This internship review took place in a wonderful and fruitful position. I wake up and communicate with many of them through this internship that I have learned a key life-motivation that is the key subject and 8time experience. My internship is the location of the main course. I maintain an internship three days a week. Our daily time is four hours again. The name of my internship consultant is Multipurpose Technology Limited which is my special stage, the place that came to Multipurpose Technology Limited and is closed. They never. I inspect the hairstyles and use arrangements that house. I face contact for a YouTube address. In this internship I learned how to build CCNA's networking computer calories. It comes at a glance, and I hope it happened in other details.

5.2 Scope for Further Career

Automation is becoming a networking base. Automation is now a part of automated configuration, deployment, maintenance, and troubleshooting. Everyday networking actions like this become networking opportunities. There is a myth that automation can take work away in the near future which is not true. Because there is a strong demand for network engineers and lack of qualified professionals, salaries, work outlook, and the opportunities are great. Taking on the role of network engineer can be an exciting and rewarding career choice. Networking will help develop and set skills, stay top of the latest trends in industry, keep the pulse in the job market, meet expected resource associates, and nur8ture client and profit access to develop your career.

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- [2] Learn About Fareast Islami Life Insurance Company Limited, available at <<u>www.fareastislamilife.com</u>> Access on 3 September' 2020 at 9:00pm.
- [3] Learn about IP address, available at <<u>https://en.wikipedia.org/wiki/IP_address</u>> Access on 5 September' 2020 at 11:00pm.

[4] Learn about Critical Network Infrastructure, available at <<u>https://www.cisco.com/c/en/us/solutions/critical-infrastructure.html</u>> Access on 15 September' 2020 at 08:30pm.

[5] Learn about Book, can be found at: Behrouz A Forouzan, 4th Edition, McGraw-Hill, Data Communications and Networking

APPENDICES

Appendix: Company Information



Head Office

Name	Fareast Islami Life Insurance Company Limited
	Company Linned
Address	Fareast Tower, 35 Topkhana Road,
	Dhaka – 1000
Telephone	09613000123, +88-02-9573077
E-mail	info@fareastislamilife.com
Website	https://www.fareastislamilife.com
Employees	304

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3	Submitte Student Paper	ed to University o	f Western Syd	ney	2
4	www.free	eccnaworkbook.c	om		2
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