

**INTERNSHIP ON NETWORK ADMINISTRATION AND LINUX SYSTEM**

**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 “**Network Administration and Linux System**” submitted by **Md. Abid Hasan** 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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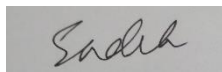
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## DECLARATION

I hereby announce that, this internship report is prepared by me, **MD. ABID HASAN**, **ID No: 172-15-9915** to the department of Computer Science and Engineering, Daffodil International University. Under the supervision of **Fahmida Afrin**, **Lecturer, Department of CSE**, Daffodil International University.

I also announce that neither this internship report nor any part of this internship report has been submitted elsewhere for award of any Degree or Diploma I also declare that, I collect information from Daffodil Online Limited , Books and Internet.

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I really grateful and wish profound gratitude to **Fahmida Afrin, Lecture**, Dept. of Computer Science and Engineering, Daffodil International University, Dhaka. Deep knowledge & keen interest of my supervisor in the field of “**Network Administration and Linux System**” to carry out this internship. Her endless patience, academic guidance, constant back-up, constant and energetic supervision, positive analysis, important advice, reading many lower draft and correcting them at all stage have made it possible to complete this internship.

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

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Finally, I must acknowledge with due high opinion the constant support and patients of parents.

## **ABSTRACT**

As a CSE student, I have completed my UV Network Ltd internship study. The report is a prerequisite of the internship program for my Bachelor of Science degree. The Connectivity Monitoring System An organization is linked to a variety of gadgets by correspondence. A hub may be a PC, printer, or any other gadget that is suitable for sending or possibly receiving information generated on the system by various hubs. Still, with their reluctant lives, an overwhelming amount of people in the world use network innovation. Along these lines, the administration of systems in our advanced lives is so critical. Each workstation is fully dependent on programming-based correspondence and web technology for every person, company and web-based company. The configuration of a device is correlated with the computer frame and fringe. If two or more computers are interconnected and able to share data or information, then we call the network. They offer different focal points. If we want to increase the number of PCs and share data or information from one to another, some unique PCs are called servers. For example, Network Architecture, Network Server, Router Settings, IP Addressing, Routing, and Settings

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# CHAPTER 1

## Introduction

### 1.1 Introduction

The Daffodil International University Internship Program is an under-graduation prerequisite for CSE students. This investigation is a fractional prerequisite at the daffodil global college for the entry level position program of the CSE education plan. The primary motive behind temporary work is to present the understudy to the world of action. The biggest challenge, being an understudy, was to turn an understanding of the conceptual ideas into genuine experience.

The aims of the temporary work program and the inquiry are as follows:

- To receive and coordinate comprehensive hands-on responsibilities for learning.
- To explore the real world of industry.
- The real situation and the exercises learned at Daffodil International University should be compared.
- To fulfill the specifications of the CSE program

### 1.2 Motivation

I am currently pursuing my Bachelors in Computer Science Engineering at Daffodil International University, I feel the significance of practical birth knowledge that will supplement the knowledge of the textbook and help a student gain a broader view of the subjects. I have learned during the internship that I am fully trained in computer networking & security information. I have received my point very well as an internet worship provider, engaging with individuals, knowing their needs and supplying them with better service. My strengths lie in my capacity to read and understand the state comprehensively and act quickly and yet smartly.



- **Executive summary:**

UV Networks Ltd. is known in Bangladesh as one of the most renowned private companies.

1. Information protection and Management of Facilities
2. Framework for Channel Management
3. Data Center and Disaster Recovery Location -Infrastructure
4. System of application support
5. Device application solution application solution
6. Kit for Network Management

UV Networks offers services to all respected consumers and partners with the assistance of the IT division.

### **1.3 Internship Objectives**

The ultimate aim of my internship program is to train myself as an acceptable person in the ruthless job market. This is also very effective in developing skills. To provide our self as skilled one, I would like to be saved some amazing virtue.

The computer science internship is designed to provide job awareness while students are still in school, to provide the same job experience with bookish preparation, and to help students swap work from classroom to workplace.

### **1.4 Introduction to the Company**

UV Ltd Networks. This is mostly a working supplier business focused on IT Technology & Security. They are the most foresighted company in the ICT sector, where long-term relationships with buyers are the basic merchandise ethics. They are highly proud of what they have received when we look at the accrual over the decade since our genesis, and even more optimistic about their prospects for an equally hopeful future You will be happy to know that they are operating in the year 2010. Due to the customer's request and considering time requirements, they have expanded their operations and service portfolio in the last few years. You will be happy to know that they are operating in the year 2010. Due to the customer's request and considering

time requirements, they have expanded their operations and service portfolio in the last few years.

**Our Mission:** To research, design, build & deliver a technology & knowledge-based synergy concept for our existence of mutation.

**Our Vision:** To become a global leader through easy solutions, as long as there are full benefits for industry, people and society from information communication technology.

**Our Values:** We explore relationships and trust with our colleagues, clients and partners based on our transparency, commitment, mutual respect and fairness.

## **1.5 Report Layout**

I have identified the intent of the internship, internship agreement and introduction to the organization in **chapter one**.

I mentioned the approach of my internship in **chapter two** and this section offers information on where the internship was connected to this program. Similarly, about how the internship work was carried out, about the business, what is the IT service provided in VTL and what is the preface of computer networking & security in the job market..

I have listed daily tasks and activities, events and acts, and challenges in **chapter three**.

I have mentioned Competencies Won in **chapter four**, Smart Plan, Reflections.

I have connected Conclusion and Potential Scope in **chapter five**. I take Linux Future Scopes into account and write a conclusion.

## **CHAPTER 2**

### **ORGANIZATION**

#### **2.1 About the Company**

Since July 2010, UV Networks Ltd. is proud to be one of the main providers of ICT services mobilized at one stop. To support corporate, ip camera, and security system SME and separate clients, it has its personal Fiber Optic & Radio Link WAN infrastructure. The Institute has collaborated with several national programs and highly enhanced foreign organizations from all alarmed citizens. It uses the technology with it and upgrades services wherever possible.

The joint Network Solution department of the centers is able to offer state-of-the-art network and telecommunication solutions with a highly effective technological dab hand class. VTL is accredited and related to Cisco, Microsoft and has a very good technical engineering and management team. Via its programs and facilities, VTL supports three main stages of education, nation-building, and conditions.

#### **2.2 Product and Market Situation**

As one of the state-leading Internet Service Providers in Bangladesh, UV Networks Ltd. is vanity itself. They are the most professional and oldest organization in the field of ICT, where long-term relationships with their clients are essential business ethics. They are extremely proud of what we have achieved as they look at the swelling over the decade since our beginning, and even more excited for our outlook for an equally optimistic future. Remote IT services and vocational training services are also offered by Daffodil Online Ltd. These are assigned below.

## IT Services

- Internet Corporate Solution..
- Key for safe.
- Registration and web hosting of the domain.
- Website marketing.
- Authorization of an open source program.
- Internet Service Provider
- Data Center, Data Access & Co-Location.
- Mail Server Solution, Proxy & DNS Server Solution.
- And all device products.
- Professional instruction and lessons.

### 2.3 Target Group

The client base of the company includes all consumers and all small- to medium-sized companies, including start-ups. The company wants to think about SOHO customers, as they are ideal goals for our latest high-speed prices, and the company has the best growth potential. Web Solutions claims that these business divisions have unique prices and service specifications and generate more committed, unfailing customers.

**Mission:** To study, design, build & deliver a technology & knowledge-based concept synergy for our life of mutation.

**Vision:** To become a global leader by offering easy solutions to the full benefits of information communication technology for industry, people and society.

**Values:** Based on our clarity, persistence, mutual respect and fairness with our colleagues, clients and partners, we explore relationships and trust.

## 2.4 SWOT Analysis

SWOT strategies are a good way to consider your strengths and weaknesses and to put your finger on the opportunities and challenges that you face.

### ❖ Strengths:

- Communication with people who are separated by distance
- Work from home without any downsides
- Set up an online biz
- Knowledge meeting

### ❖ Weaknesses:

- New entrants have set skill levels too low to sustain the market.
- The vast amounts of money needed to set up companies
- Objection to tiny resellers
- Numerous price spikes and service choices

### ❖ Opportunities:

- Age type of Population Switch
- The number of households increasing in the UK
- Fund mentation of simplified tariffs

### ❖ Threats:

- Economic rub-House owners are less likely to increase the lack of confidence in the digital telecommunications industry for their broadband offerings in the stock market.
- It remains to be seen how far Internet access can be grasped by customers.

## 2.5 Organizational Structure

UV Networks Ltd.'s Body Structure.



Figure 2.5.1: Shows Organogram of UV Networks Ltd.

## CHAPTER 3

### Tasks, Events and Activities

#### 3.1 Daily Tasks and Activities

- ❖ The first month of the UV Networks Ltd internship. The following tasks were studied and performed by me:
  - Learning & awareness of CCNA's Network Components and Fundamentals.
  - Router Setup & Router Run Level for learning & understanding.
  
- ❖ The second month of the UV Networks Ltd internship. The following tasks were studied and performed by me:
  - Router Setup & Setup for Applications.
  - Setup of Router Password
  - Gain basic knowledge of the configuration of routers and IP addresses
  -
  
- ❖ The third month of the UV Networks Ltd internship. The following tasks were studied and performed by me:
  - I have attempted to configure all router forms.

#### 3.2 Events and Activities

- Setting up accounts, permissions and passwords for users.
- Computer devices and network management and maintenance.
- Troubleshooting networks and switches in the local area.
- Servers and routers troubleshooting.
- Technological assistance for network users.
- Correcting network failures.
- Suggesting IT solutions to issues in industry.
- Cell Client Help or Physical Movement to Client Ends
- Day to day admin and recording of network use.

### 3.3 Project Task and Activities

Connecting via console to Cisco devices

Objectives:

- Use the blue console cable to connect the PC to a Cisco router or switch.
- Run putty and connect the cisco router or switch or switch at a speed of 9600bps using the COM1 or PC corresponding COM port.
- Power on the cisco devices and check the cheering session on the terminal emulator by watching the devices boot up.

### 3.4 Introduction of Basic Networking

#### 1) Simplex

The occupation of a simplex correspondence only sends information in a single heading. A radio station rule, for instance, sends signs to the gathering of viewers but never receives signals from them, tolerating signs. In any event, this would most likely not be certain on the basis that the pair of fiber strands are joined to one link as much as possible. The remarkable feature of simplex mode is that it is possible to use its entire exchange speed in the middle of the transmission.

#### 2) Half duplex

The occupation of a simplex correspondence only sends information in a single heading. A radio station rule, for instance, sends signs to the gathering of viewers but never receives signals from them, tolerating signs. In any event, this would most likely not be certain on the basis that the pair of fiber strands are joined to one link as much as possible. The remarkable feature of simplex mode is that it is possible to use its entire exchange speed in the middle of the transmission.



### **3) Full duplex**

Meanwhile, a complete duplex direct correspondence will convey data on a sign conveyor in the two headings. It functions as two or three simple associations that license synchronous bidirectional transmission. For example, Acknowledge Telephone, people can speak and be heard by each other at the two terminations of a call in the meantime in view of the fact that there are two forms of communications between them.

### **3.4 Challenges:**

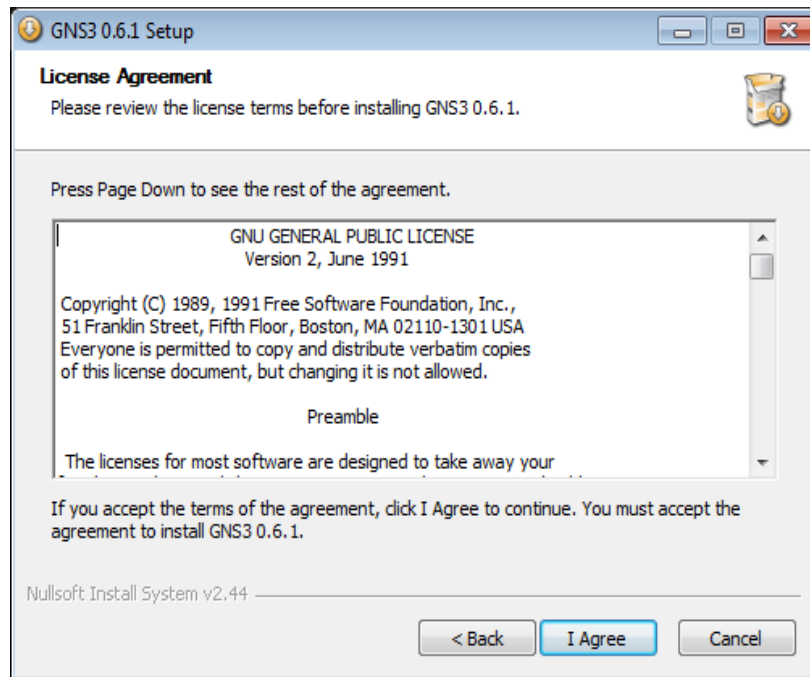
I would like to suggest the following items for Competencies Won

- The server has long fallen flat.
- Currently, new CBS programming has been going for a few months. So the previous programming called Baxibank is needed on the off chance that someone wants the announcement or other information identified with exchange multiple moths.
- The electronic token system is not used.
- PCs are not state-of-the-art.

## Installing graphical network simulator v3:

**Step 1:** Download the all-in-one GNS3 package.

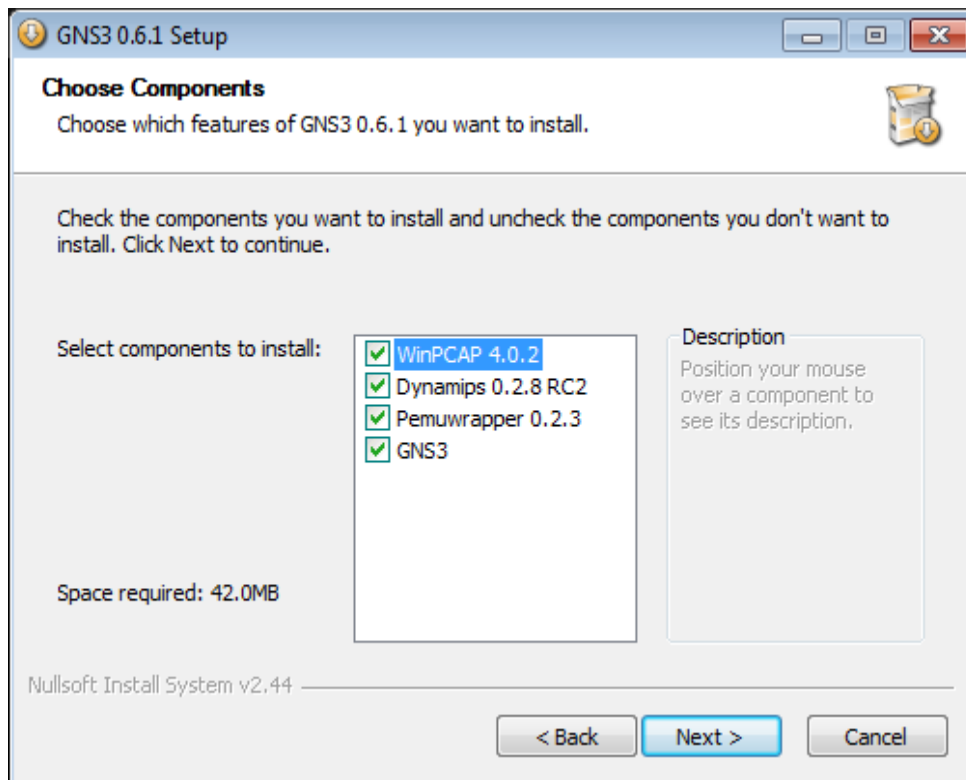
**Step 2:** The installer will be sent with the installer wizard after the complete download.



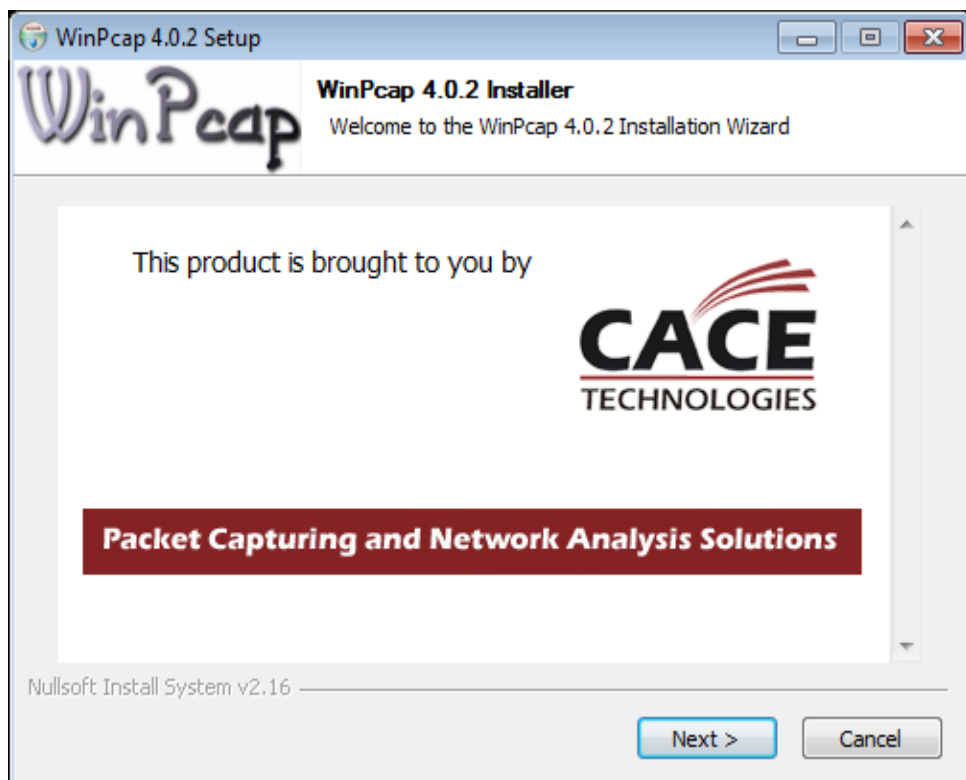
**Step3:** Click next to proceed after handing over the thaw installation wizard.



#### Step 04:



#### Step 05:



**Step 06:**



**Step 07:**



## Step 08:



Figure 3.5.2 installing graphical network simulator

### 2.1: Password reset:

Once booted, put yourself in privileged mode and copy the startup configuration to the configuration of the running program. You will turn the lone or allow password in the future and write the NVRAM configuration using the order.

```
--- System Configuration Dialog ---
Would you like to enter the initial configuration dialog? [yes/no]: n

Press RETURN to get started!

Router>enable
Router#copy start run
Destination filename [running-config]?
506 bytes copied in 3.868 secs (168 bytes/sec)
ARCVRSR01#configure terminal
ARCVRSR01(config)#enable secret NEWENABLEPASSWORD
ARCVRSR01(config)#line con 0
ARCVRSR01(config-if)#password NEWPASSWORD
ARCVRSR01(config-if)#end
ARCVRSR01#copy run start
Destination filename [startup-config]?
Building configuration...
[OK]
ARCVRSR01#
```

This is the password-reset code of any router. After the password is reset, the router will be ready for startup.

## Configuring wide area network links:

Configuring connections from point to point T1

A general architectural deployment is point to point connections between a branch offices and the headquarters location. Using the PP and HDLC layer 2 protocol, this tab will talk and demonstrate the aspect of this WAN connection

```
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#
```

## 2. Configuring connections from point to point frame relay

Frame relay is a legacy technology, but its clarity and cost are still fairly popular in developing countries. This laboratory will demonstrate and expose how a point-to-point frame relay circuit can be massaged.

```
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)#no shutdown
R1(config-if)#
%LINK-3-UPDOWN: Interface Serial0/0, changed state to up
R1(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0, changed
state to up
R1(config-if)#encapsulation frame-relay
R1(config-if)#frame-relay interface-dlci 122
R1(config-fr-dlci)#end
R1#
%SYS-5-CONFIG_I: Configured from console by console
R1#
```

### 3. Point to point frame relay interface configuration

Using a single physical frame circuit, we can configure several point-to - point sub interfaces. Hub and spoken places where you want to hold the spokes in their own layer 3 subnet can be used for this form of configuration. This will try to illustrate the setup to verification of the frame relay point to point sub-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 Serial0/0.122 point-to-point
R1(config-subif)#ip address 172.18.12.1 255.255.255.252
R1(config-subif)#frame-relay interface-dlci 122
R1(config-fr-dlci)#exit
R1(config-subif)#interface Serial0/0.123 point-to-point
R1(config-subif)#ip address 172.18.13.1 255.255.255.252
R1(config-subif)#frame-relay interface-dlci 123
R1(config-subif)#end
R1#
%SYS-5-CONFIG_I: Configured from console by console
R1#
```

### 4. Point to multipoint frame relay configuration WAN

The hub is most generally implemented with a point to multipoint interface as it joins the hub and spoke system. This lab addresses the setup and shows the settings and Multi-Point Frame Relay Device Verification.

```
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)#end
R1#
%SYS-5-CONFIG_I: Configured from console by console
R1#
```

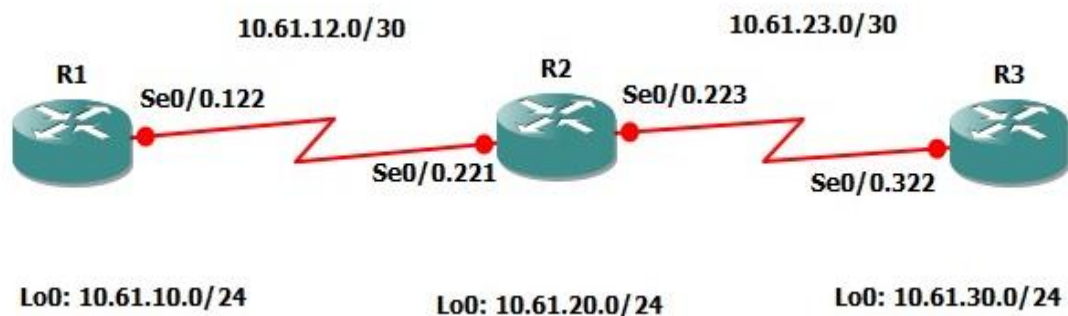
This is all about configuring the wide AREA network connections

### Configuring the static routing:

In the event that you plan to become a CCNA, you are best prepared to understand static movement at that point. Static steering is a key novelty that must be earned by every machine master. It is the ability to design a path statically from one computer to a device with the following way of travelling to get to that arrangement.

Example:

If switch R1 is connected to system 10.61.10.0/24 and PCs need to get to the 10.61.30.0/24 arrangement on that system, then R1 must know where to submit the traffic to the neighborhood to R1 that can accomplish the system



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
```

```
R2(config)#end
```

```
R2#
```



There could be different choices for the static routing setup.

### **Routing information protocol (RIP) configuration:**

A bright simplistic dynamic routing protocol known as RIP is a routing information protocol that can be expanded in a matter of minutes. The configuration and verification of specific effects will be viewed and displayed in this laboratory.

So, the big question about sustaining a large network?

This may be a static routing cam that maintains a large network. If you have a problem, you have over 500 + subnets and 50 + routers to maintain the network. It's a clear answer, you don't. We may of moor, but if anything is wrong with any network, we will have to maintain hundreds of static routing of static routing, then we need fresh routing.

So, we can use the awesome world of dynamic protocol routing quickly. Routing protocol RIP is the first of 3 complex routing protocols that CCNA engineering needs to know. Due to the inclusion of its code in the BSD 4.2 Unix OS, RIP was found in 1982, then, a few years later, June 1988 became an IFT standard. Rip put back GGP, which is the protocol we're going to catch around again as tit's long gone and becomes like that.

### **Code of Routing Information Protocol Configuration:**

```
R1#show run | inc ip route
ip route 10.70.20.0 255.255.255.0 10.70.12.2
ip route 10.70.20.0 255.255.255.0 10.70.21.2 200
ip route 10.70.30.0 255.255.255.0 10.70.12.2
ip route 10.70.30.0 255.255.255.0 10.70.21.2 200
R1#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#no ip route 10.70.20.0 255.255.255.0 10.70.12.2
R1(config)#no ip route 10.70.20.0 255.255.255.0 10.70.21.2 200
R1(config)#no ip route 10.70.30.0 255.255.255.0 10.70.12.2
R1(config)#no ip route 10.70.30.0 255.255.255.0 10.70.21.2 200
R1(config)#end
R1#
```

### **Configuration of RIPv1 and RIPv2:**

The first RIP version is RIP version-1 and the second one is RIP version-2. I used RIPv2 for RIPv2

#### **Code of RIPv2:**

```
R1>enable
R1#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#router rip
R1(config-router)#version 2
R1(config-router)#end
R1#
```

And R12 router

```
R2>enable
R2#configure terminal
Enter configuration commands, one per line. End with CNTL/Z. R2(config)#router
rip
R2(config-router)#version 2
R2(config-router)#end
R2#
```

### **Configuring open short path first:**

In interior complex present conventions, OSPF is the business grade and it is improved on almost all merchant levels.

What makes OSPF so excellent, then?

The helpfulness and the varied expected structure of the agreement in which it works well with current structures are extremely helpful.

## **Types of OSPF:**

### **Broadcast:**

- The use of a DR / BDR requires an OSPF Broadcast device form.
- The broadcast device form for an OSPF-enabled Ethernet interface is the Broadcast.
- The sort of broadcast system has a dead clock of ten seconds and forty seconds.
- The form of broadcast system makes it possible for a link to improve Layer two broadcast powers.

### **Non- Broadcast:**

- The arrangement of static neighbors is represented by non-broadcast systems, which are sent by unicast.
- The Non- Broadcast machine type has a dead clock of thirty seconds and one hundred twenty seconds.
- The Non-Broadcast device form is the default for OSPF to approve physical interfaces for edge transfer.
- The use of a DR / BDRR requires an OSPF Non- Broadcast system form.

### **Point-to-Point**

- The Point-to - Point sort of device has a dead clock of ten seconds and forty seconds.
- Point-to - Point device types are designed to be used by two switches that are easily connected.
- A Point-to - Point OSPF type of device does not retain a DR / BDR relation..

## Point-to-Multipoint

- Point-to - Multipoint systems do not establish a partnership with DR / BDR.
- The sort of Point-to - Multipoint device has a 30-second high and a hundred and twenty-second dead clock
- Point-to - Multipoint systems for all enclosure hand-off endpoints allow a hot course public.
- OSPF treats Point-to-Multipoint as a community of point-to - point connections.

## Point-to-Multipoint Non- Broadcast:

- Qualify you on a presumption for each neighbor to describe communication costs.
- Much like Point-to-Multipoint, it also needs static neighbors. Two topologies used on the Non-Communicate layer

## Configuration of OSPF Routing:

Return the default form of OSPF interface to the edge hand-off center and spoken interfaces of R1, R2, R4 and R5

```
R1>enable
R1#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#interface Serial0/0
R1(config-if)#no ip ospf network
R1(config-if)#end
R1#
%OSPF-5-ADJCHG: Process 1, Nbr 10.90.20.1 on Serial0/0 from FULL to DOWN, Neighbor Down: Interface down or detached
%OSPF-5-ADJCHG: Process 1, Nbr 10.90.40.1 on Serial0/0 from FULL to DOWN, Neighbor Down: Interface down or detached
%OSPF-5-ADJCHG: Process 1, Nbr 10.90.50.1 on Serial0/0 from FULL to DOWN, Neighbor Down: Interface down or detached
R1#
*Jul  8 20:19:16.767: %SYS-5-CONFIG_I: Configured from console by console
R1#
```

```
R2>enable
R2#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
R2(config)#interface Serial0/0
R2(config-if)#no ip ospf network
R2(config-if)#end
R2#
```

```
R4>enable
R4#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
R4(config)#interface Serial0/0
R4(config-if)#no ip ospf network
R4(config-if)#end
R4#
```

```
R5>enable
R5#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
R5(config)#interface Serial0/0
R5(config-if)#no ip ospf network
R5(config-if)#end
R5#
```

Configure the ipV6:

```
R1>enable
R1#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
R1(config)#ipv6 unicast-routing
R1(config)#interface FastEthernet0/0
R1(config-if)#ipv6 address 2001:abad:beef::1/64
R1(config-if)#no shut
R1(config-if)#
```

Develop R2's FastEthernet0/0 interface to auto configure its one-of-a-kind unicast address IPv6 worldwide, hold up for a few minutes and confirm that this auto interface arranges a new IPv6 address worldwide.

```
R2>enable
R2#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
R2(config)#interface FastEthernet0/0
R2(config-if)#ipv6 address autoconfig
R2(config-if)#no shut
R2(config-if)#end
R2#
R2#show ipv6 interface FastEthernet0/0
FastEthernet0/0 is up, line protocol is up
  IPv6 is enabled, link-local address is FE80::C800:7FF:FE14:8
  No Virtual link-local address(es):
  Description: ### LINK TO LAN ###
  Stateless address autoconfig enabled
  Global unicast address(es):
    2001:ABAD:BEEF:0:C800:7FF:FE14:8, subnet is 2001:ABAD:BEEF::/64
  [EUI/CAL/PRE]
    valid lifetime 2591992 preferred lifetime 604792
  Joined group address(es):
    FE02::1
    FE02::2
    FE02::1:FE14:8
  MTU is 1500 bytes
  ICMP error messages limited to one every 100 milliseconds
  ICMP redirects are enabled
  ICMP unreachables are sent
  ND DAD is enabled, number of DAD attempts: 1
  ND reachable time is 30000 milliseconds (using 37387)
  ND advertised reachable time is 0 (unspecified)
  ND advertised retransmit interval is 0 (unspecified)
  ND router advertisements are sent every 200 seconds
  ND router advertisements live for 1800 seconds
  ND advertised default router preference is Medium
  Hosts use stateless autoconfig for addresses.
```

## CHAPTER 4

### Competencies and Smart Plan

#### 4.1 Competencies Earned

Competencies the product of the obtained or lesson is a declaration of what a student as a consequence of a learning experience is supposed to know, understand or be able to do. Installation and decommissioning of both the router and the network. Leading position in leading implementations of Linux applications, such as LDAP HA, correlated with programming learning performance, field and internship changes. The Student Union Office supports many Intern Learning Results for Students, Participate in the redesign of the Linux Lab website by collecting and organizing information into an internship project summary. Learning Results. Install & Configure applications and upgrades; Employer Services install, configure & evaluate network. The Internship On-Site Supervisor will also provide direction on organizational policies and activities in line with the learning performance.

#### 4.2 Smart Plan

- Know much about the NOC control system.
- If you want to perform better, it is critical to monitor all the terminals.
- For unique screen resolutions and ideas, check out several tablets and smart technology.
- Release / gain theory in a distinctive way.

#### 4.3 Reflections

In the year 2010, UV Networks Ltd. will be operational. In recent years, as mentioned by the customer's advice and consideration of the request for time, they have established their action and service portfolio. They collaborated with and attained the prestige of several national initiatives and foreign organizations. They use the latest technology and update their services wherever they are needed. The department of Corporate Network Solution is able to provide a highly qualified technical knowledge group with state-of-the-art network and telecommunication solutions.

## CHAPTER 5

### Conclusion and Future Career

#### 5.1 Discussion and Conclusion

I can gather a great deal of knowledge from that place of entry level that will be useful in my future works. I'm going to be willing to do a lot of work on a device observation issue and also help build it in an efficient way. In general, I need to state that this entry level role is beneficial to the executive transporter for my observation and method, which makes me fruitful anywhere in the system section I have taken part in a beneficial and future upgrade that again assists me to function in a system-based company. In my not so distant future, every experience I gather structuring the temporary position will most likely benefit me.

#### 5.2 Scope for Further Career

Internship objectives include a very strong, straightforward definition of the network base structure in functional and semantic terms. My internship introduced a proof of concept using imitated information for a decision making method. It can be a real challenge to find a great career,

- To be a business with a functioning network.
- Compilation of data and information.
- Strong contact.
- Willingness to work in teams.
- Act as a subject for network monitoring.
- Working in the ISP-based process.
- Acting as an organization's IT boss.
- Train as a network engineer.
- Acting as a specialist supervisor of assistance and protection.



## References

### Books:

- 1) Dr. Roy Winkelman, An Educator's Guide to School Networks, One, Florida Department of Education, 2013

### Websites:

- 1) Tech Terms of the website, available at << <https://techterms.com/> >> last accessed on 22/09/2020 at 12:00 AM.

### Example:

- 1) Learn about Wikipedia, available at << <http://www.wikipedia.org>>>, last accessed on 30/09/2020 at 12:00 PM.

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