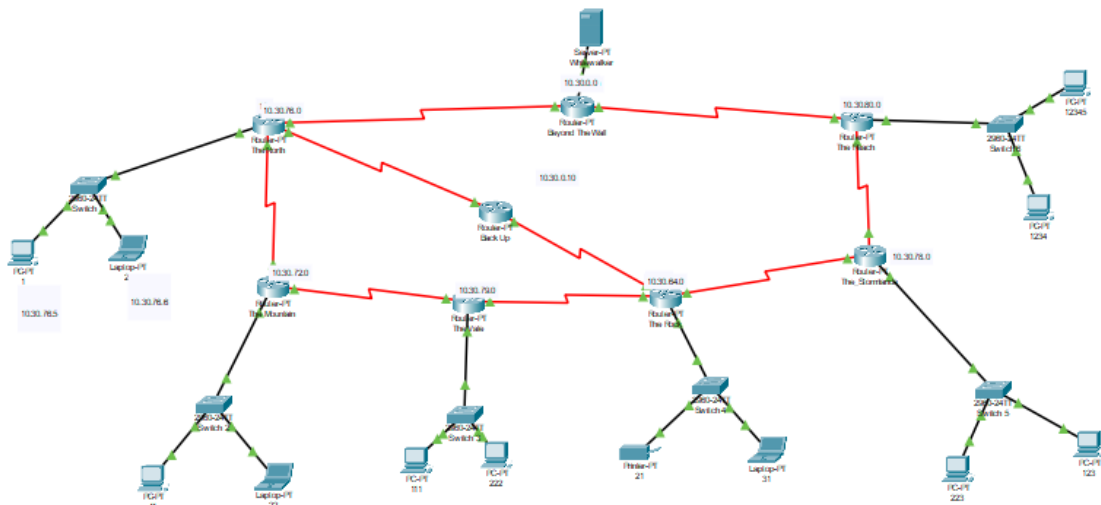


# CSE421 Project

Group 86

Project no: 1

ID: 16101196, 17301188, 16201066, 17101402



### Configuration:

## The North:

The\_North&gt;enable

The\_North#

The\_North#configure terminal

Enter configuration commands, one per line. End with CNTL/Z.

```
The_North(config)#interface FastEthernet0/0
```

The\_North(config-if)#

The\_North(config-if)#exit

```
The_North(config)#interface FastEthernet1/0
```

The\_North(config-if)#

The\_North(config-if)#exit

```
The_North(config)#interface Serial2/0
```

```
The_North(config-if)#
The_North(config-if)#exit
The_North(config)#interface Serial3/0
The_North(config-if)#
The_North(config-if)#exit
The_North(config)#interface Serial6/0
The_North(config-if)#
The_North(config-if)#exit
The_North(config)#interface Serial2/0
The_North(config-if)#
The_North(config-if)#exit
The_North(config)#interface Serial3/0
The_North(config-if)#
The_North(config-if)#exit
The_North(config)#interface Serial3/0
The_North(config-if)#ip address 10.10.92.30 255.255.255.248
The_North(config-if)#ip address 10.10.92.30 255.255.255.248
The_North(config-if)#
The_North(config-if)#exit
The_North(config)#interface Serial2/0
The_North(config-if)#ip address 10.10.92.20 255.255.255.248
The_North(config-if)#ip address 10.10.92.20 255.255.255.248
The_North(config-if)#
The_North(config-if)#exit
The_North(config)#interface FastEthernet0/0
The_North(config-if)#ip address 10.30.76.2 255.255.254.0
The_North(config-if)#ip address 10.30.76.2 255.255.254.0
The_North(config-if)#
```

### **The Mountain:**

```
The_Mountain>enable
The_Mountain#
The_Mountain#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
The_Mountain(config)#interface FastEthernet0/0
The_Mountain(config-if)#ip address 10.30.72.2 255.255.252.0
The_Mountain(config-if)#ip address 10.30.72.2 255.255.252.0
The_Mountain(config-if)#ip address 10.30.72.2 255.255.252.0
The_Mountain(config-if)#
The_Mountain(config-if)#exit
The_Mountain(config)#interface FastEthernet1/0
The_Mountain(config-if)#
The_Mountain(config-if)#exit
The_Mountain(config)#interface Serial2/0
The_Mountain(config-if)#ip address 10.10.92.17 255.255.255.248
The_Mountain(config-if)#ip address 10.10.92.17 255.255.255.248
The_Mountain(config-if)#
```

```
The_Mountain(config-if)#exit
The_Mountain(config)#interface Serial3/0
The_Mountain(config-if)#ip address 10.10.92.12 255.255.255.248
The_Mountain(config-if)#ip address 10.10.92.12 255.255.255.248
The_Mountain(config-if)#
```

### **The Vale:**

```
The_Vale>enable
The_Vale#
The_Vale#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
The_Vale(config)#interface FastEthernet0/0
The_Vale(config-if)#ip address 10.30.79.1 255.255.255.0
The_Vale(config-if)#ip address 10.30.79.1 255.255.255.0
The_Vale(config-if)#
The_Vale(config-if)#exit
The_Vale(config)#interface FastEthernet1/0
The_Vale(config-if)#
The_Vale(config-if)#exit
The_Vale(config)#interface Serial2/0
The_Vale(config-if)#ip address 10.10.92.35 255.255.255.248
The_Vale(config-if)#ip address 10.10.92.35 255.255.255.248
The_Vale(config-if)#
The_Vale(config-if)#exit
The_Vale(config)#interface Serial3/0
The_Vale(config-if)#ip address 10.10.92.29 255.255.255.248
The_Vale(config-if)#ip address 10.10.92.29 255.255.255.248
The_Vale(config-if)#
```

### **The Rock:**

```
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router rip
Router(config-router)#
Router(config-router)#end
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#
Router(config)#
%SYS-5-CONFIG_I: Configured from console by console
```

```
Router(config)#interface FastEthernet0/0
Router(config-if)#ip address 10.30.64.11 255.255.255.248
Router(config-if)#ip address 10.30.64.11 255.255.255.248
```

```
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet1/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#ip address 10.30.92.11 255.255.255.248
Router(config-if)#ip address 10.30.92.11 255.255.255.248
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial6/0
Router(config-if)#ip address 10.30.92.19 255.255.255.248
Router(config-if)#ip address 10.30.92.19 255.255.255.248
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial6/0
Router(config-if)#
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

### **Backup route :**

```
Back_Up>enable
Back_Up#
Back_Up#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Back_Up(config)#interface FastEthernet0/0
Back_Up(config-if)#
Back_Up(config-if)#exit
Back_Up(config)#interface FastEthernet1/0
Back_Up(config-if)#
Back_Up(config-if)#exit
Back_Up(config)#interface Serial2/0
Back_Up(config-if)#ip address 10.10.92.6 255.255.255.248
Back_Up(config-if)#ip address 10.10.92.6 255.255.255.248
Back_Up(config-if)#ip address 10.10.92.6 255.255.255.248
Back_Up(config-if)#
Back_Up(config-if)#exit
Back_Up(config)#interface Serial3/0
Back_Up(config-if)#ip address 10.10.92.25 255.255.255.248
Back_Up(config-if)#ip address 10.10.92.25 255.255.255.248
Back_Up(config-if)#
```

### **Dynamic**

### **The Stormlands:**

```
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router rip
Router(config-router)#
Router(config-router)#end
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#
%SYS-5-CONFIG_I: Configured from console by console
ip address 10.30.78.1 255.255.255.0
Router(config-if)#ip address 10.30.78.1 255.255.255.0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#ip address 10.30.92.12 255.255.255.248
Router(config-if)#ip address 10.30.92.12 255.255.255.248
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial3/0
Router(config-if)#ip address 10.30.92.18 255.255.255.248
Router(config-if)#ip address 10.30.92.18 255.255.255.248
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial3/0
Router(config-if)#
```

### **The Reach:**

```
The_Reach>enable
The_Reach#
The_Reach#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
The_Reach(config)#router rip
The_Reach(config-router)#
The_Reach(config-router)#end
The_Reach#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
The_Reach(config)#interface FastEthernet0/0
The_Reach(config-if)#
%SYS-5-CONFIG_I: Configured from console by console

The_Reach(config-if)#exit
The_Reach(config)#interface FastEthernet1/0
The_Reach(config-if)#
```

```
The_Reach(config-if)#exit
The_Reach(config)#interface Serial2/0
The_Reach(config-if)#
The_Reach(config-if)#exit
The_Reach(config)#interface Serial3/0
The_Reach(config-if)#
```

### **Beyond The Wall:**

```
Beyond_The_Wall>enable
Beyond_The_Wall#
Beyond_The_Wall#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Beyond_The_Wall(config)#router rip
Beyond_The_Wall(config-router)#
Beyond_The_Wall(config-router)#end
Beyond_The_Wall#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Beyond_The_Wall(config)#interface FastEthernet0/0
Beyond_The_Wall(config-if)#
%SYS-5-CONFIG_I: Configured from console by console
```

```
Beyond_The_Wall(config-if)#exit
Beyond_The_Wall(config)#interface FastEthernet1/0
Beyond_The_Wall(config-if)#
Beyond_The_Wall(config-if)#exit
Beyond_The_Wall(config)#interface Serial2/0
Beyond_The_Wall(config-if)#
Beyond_The_Wall(config-if)#exit
Beyond_The_Wall(config)#interface Serial3/0
Beyond_The_Wall(config-if)#
Beyond_The_Wall(config-if)#exit
Beyond_The_Wall(config)#interface FastEthernet0/0
Beyond_The_Wall(config-if)#ip address 10.30.0.1 255.255.192.0
Beyond_The_Wall(config-if)#ip address 10.30.0.1 255.255.192.0
Beyond_The_Wall(config-if)#
Beyond_The_Wall(config-if)#exit
Beyond_The_Wall(config)#interface Serial2/0
Beyond_The_Wall(config-if)#ip address 10.10.92.1 255.255.255.248
Beyond_The_Wall(config-if)#ip address 10.10.92.1 255.255.255.248
Beyond_The_Wall(config-if)#
Beyond_The_Wall(config-if)#exit
Beyond_The_Wall(config)#interface Serial3/0
Beyond_The_Wall(config-if)#ip address 10.10.92.17 255.255.255.248
Beyond_The_Wall(config-if)#ip address 10.10.92.17 255.255.255.248
Beyond_The_Wall(config-if)#
```

The network 10.30.0.0/16 has 65534 hosts.  
Our subnets need 12336 hosts.

Name	Network Address	Slash	Mask
The North	10.30.76.0	/23	255.255.254.0
The Mountains	10.30.72.0	/22	255.255.252.0
The Vale	10.30.79.0	/24	255.255.255.0
The Rock	10.30.64.0	/21	255.255.248.0
The Stormlands	10.30.78.0	/24	255.255.255.0
The Reach	10.30.80.0	/28	255.255.240.0
Beyond the wall	10.30.0.0	/18	255.255.192.0
Back Up Router	10.30.92.0	/29	255.255.255.248

**Addressing Table**

<b>Device</b>	<b>Interface</b>	<b>IPv4 Address</b>	<b>Subnet Mask</b>	<b>Default Gateway</b>
<b>The North</b>	F0/0	10.30.76.2	255.255.255.0	
	S2/0	10.10.92.21	255.255.255.248	
	S3/0	10.10.92.33	255.255.255.248	
	S6/0	10.10.92.12	255.255.255.248	
<b>The Mountains</b>	F0/0	10.30.72.2	255.255.240.0	
	S2/0	10.10.92.34	255.255.255.248	
	S3/0	10.10.92.39	255.255.255.248	
<b>The Rock</b>	F0/0	10.10.32.1	255.255.240.0	
	S2/0	10.10.92.23	255.255.255.248	
	S3/0	10.10.92.19	255.255.255.248	
	S7/0	10.10.92.37	255.255.255.248	
<b>The Vale</b>	F0/0	10.10.88.1	255.255.252.0	
	S2/0	10.10.92.13	255.255.255.248	
	S3/0	10.10.92.6	255.255.255.248	
<b>The Stormlands</b>	F0/0	10.10.93.65	255.255.255.248	
	S2/0	10.10.92.12	255.255.255.248	
	S3/0	10.10.92.31	255.255.255.248	
<b>The Reach</b>	F0/0	10.10.80.1	255.255.248.0	
	S2/0	10.10.92.22	255.255.255.248	
	S3/0	10.10.92.5	255.255.255.248	
<b>Beyond The Wall</b>	F0/0	10.10.0.0	255.255.224.0	
	S2/0	10.10.92.6	255.255.255.248	
	S3/0	10.10.92.14	255.255.255.248	
<b>Back up router</b>	S2/0	10.10.92.4	255.255.255.248	
	S3/0	10.10.92.7	255.255.255.248	
<b>PC0</b>	NIC	10.10.92.2	255.255.255.0	10.10.92.1
<b>PC1</b>	NIC	10.10.92.3	255.255.255.0	10.10.92.1
<b>PC2</b>	NIC	10.10.64.2	255.255.240.0	10.10.64.1
<b>PC3</b>	NIC	10.10.64.3	255.255.240.0	10.10.64.1
<b>PC4</b>	NIC	10.10.32.2	255.255.240.0	10.10.32.1
<b>PC5</b>	NIC	10.10.32.3	255.255.240.0	10.10.32.1
<b>PC6</b>	NIC	10.10.80.3	255.255.248.0	10.10.80.1
<b>PC7</b>	NIC	10.10.80.2	255.255.248.0	10.10.80.1
<b>PC9</b>	NIC	10.10.88.2	255.255.248.0	10.10.88.1
<b>PC10</b>	NIC	10.10.88.3	255.255.248.0	10.10.88.1
<b>Printer1</b>	NIC	10.10.0.3	255.255.224.0	10.10.10.1
<b>Laptop0</b>	NIC	10.10.0.2	255.255.224.0	10.10.10.1
<b>Server</b>	NIC	10.10.93.66	255.255.255.248	10.10.93.65