

CHAPTER 6

SUMMARY AND CONCLUSION

As the conclusion, this project have successfully reached the aimed and objectives. The PC based router showed it can do the routing process, as had been discuss above, for each design completed. Personally, I find building this router somewhat fascinating. By completing the final stage of the project, I know how to develop, examine and simulate various security and routing models that might ultimately prove suitable and economizing for use in a space-networking environment, using the routing software, Quagga.

This PC based router is secure. Nobody can access and change the configurations of daemons except for the developer, as the password was set to start and enable the files. Below is the example;

```
localhost:~ # rczebra start
Starting routing daemon (Zebra)   done
localhost:~ # telnet localhost 2601
Trying 127.0.0.1...
Connected to localhost.
Escape character is '^]'.
```

```
Hello, this is Quagga (version 0.98.5).  
  
Copyright 1996-2005 Kunihiro Ishiguro, et al.  
  
User Access Verification  
  
Password: xxxxxxx  
  
zebra> enable  
  
Password: xxxxxxx
```

User of this software can dynamically change configuration from terminal interface and can use command line completion and history in terminal interface.

Besides, the Zebra daemon is easy to use and provides many advanced routing features. By splitting the routing protocols into separate processes, it provides modularity and stability to the whole system. Zebra is open source and is extensible. Zebra is freely available and runs on publicly available operating systems. This extends the power of Zebra to users who typically cannot afford expensive dedicated routers.

Finally, altogether with the development of this final year project, I learned many things such as new software and increased my knowledge in networking. I have become such a result-orientated person that I cannot stop doing my work and the progress of my project until I successfully get the desired results.

CHAPTER 7

RECOMMENDATION FOR FUTURE PROJECT

It is clear that the present project might be significantly improved. For the future project, several modifications should be done such as;

1. To have more flexible and rich web interface
2. More network adapters, including wireless. The following characteristics are reason why using wireless is much better. Wireless proved independent of the standard communications infrastructure and flexible packet-based network. In the other hand, using this wireless system were potential to fast installation, flexible links for point-to-point or point-to-multipoint, and as advantage for all users, it comes with low cost and high speed.
3. More ports at onboard VoIP device, probably digital port interface card
4. Configuration files archivation for easier backup/recover
5. Software upgrade procedure and system installer

I hope that with the repaired and changes that made as above, the PC based router will operate in wider network, and results to give in a beneficial influence of networking for campus environment as well as working places.