East West University

Project Report

CSE 405 (Computer Networks)

Section : 3

Submitted by
Swakshar Debnath
2017-2-60-034

Submitted to
Dr. Anisur Rahman
Associate Professor,
department of Computer Science and Engineering,
East West University

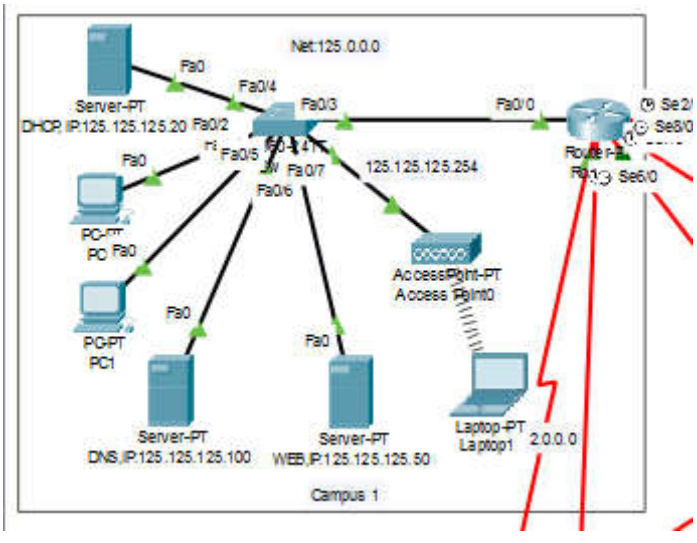
Project Title: Design a full-fledged network for an organization with multiple subnets.

Introduction: A computer network is a group of computers that use a set of common communication protocols over digital interconnections .The connection between computers can be done via cabling, most commonly the Ethernet cable. In this Project I mainly design full-fledged network for international Apollo University. So I Usually build this model to take six routers that represented six campus and each node. I also add 2960 switch connect with the pc and we also take AccessPoint-Pt wireless devices which added wireless device .All six campuses had one DHCP server and one DNS and WEB server , which were connected with router 1. In DNS sever first we set up the url of the university link and connect with web server. So, when we set up this thing then people will browse University's web site with the following address: http://www.apollointernational.edu.

Implemention: I took one DHCP and One DNS for all six routers. And I have used IP addresses from all three classes. DHCP and DNS servers are connected with router 1.

DHCP server IP: 125.125.125.200

DNS server IP: 125.125.125.100



Networks have been selected from all three classes. And the networks are connected in a mesh. Each router is connected with all other networks.

Network address of all six campuses:

Campus 1 : 125.0.0.0 (Router 1)

Campus 2 : 126.0.0.0 (Router 2)

Campus 3 : 192.168.10.0 (Router 3)

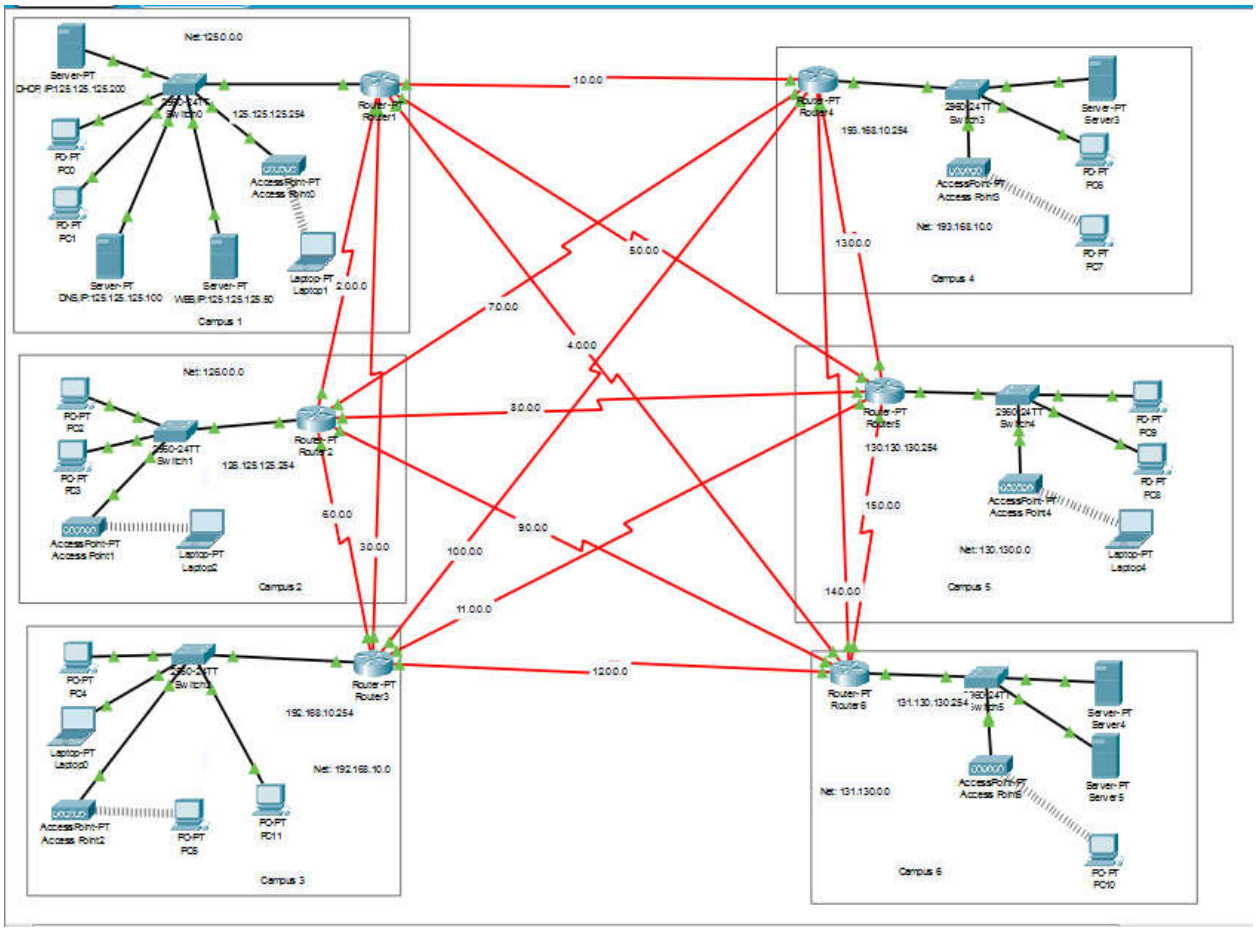
Campus 4 : 193.168.10.0 (Router 4)

Campus 5 : 130.130.0.0 (Router 5)

Campus 6 : 131.130.0.0 (Router 6)

Tools: In this project for the design of network and modeling, and for implementation I use mainly Cisco Packet tracer.version 7.2.1.

Design of the network:



Limitation: In this project I could not implement subnets of network. And also number of end devices are not as much as a real life scenario.

Conclusion: This project was really helpful for me to understand how a complex network works. I think real life networks can be designed with it. There is a lot of concept that I could not implement due to lack of knowledge . But am looking forward to learn all this things and implement them in this project in near future.