HACETTEPE UNIVERSITY
COMPUTER ENGINEERING DEPARTMENT
COMPUTER NETWORKS LABORATORY

EXPERIMENT 5

Dynamic Routing

INTRODUCTION

You should read Chapter 4 - Network Layer from the course textbook, especially **Section 4.6 Routing in the Internet** for theoretical background.

EXPERIMENT STEPS

1. First, you should create lab topology described in the Lab09-Routing Experiment Figure2.
2. Assign all interfaces (FastEthernet, Serial) described in the Lab Topology.
3. All groups should use the same dynamic routing protocols simultaneouly. You have to research about routing protocol commands for Cisco Router.
4. Configure **RIP** protocol. Display routing tables and ping from your computer to all other remote computers.
5. Remove RIP configuration and configure **OSPF** protocol. Display routing tables and ping from your computer to all other remote computers.
6. Remove OSPF configuration and configure **EIGRP** protocol. Display routing tables and ping from your computer to all other remote computers.

```
Router(config)#router ?
  bgp     Border Gateway Protocol (BGP)
  eigrp   Enhanced Interior Gateway Routing Protocol (EIGRP)
  ospf    Open Shortest Path First (OSPF)
  rip     Routing Information Protocol (RIP)
Router(config)#router rip
Router(config-router)#network ?
  A.B.C.D  Network number
```

Example Routing Information Protocol command for Cisco Router

REFERENCES

- Computer Networks: A top-down approach, Kurose and Ross, 6th Edition, Addison-Wesley
- http://www.cisco.com/c/en/us/td/docs/ios/12_2/ip/configuration/guide/fipr_c/1cfrip.html
- http://www.cisco.com/c/en/us/td/docs/ios/12_2/ip/configuration/guide/fipr_c/1cfeigrp.html
- http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute_ospf/configuration/12-4t/iro-12-4t-book/iro-cfg.html