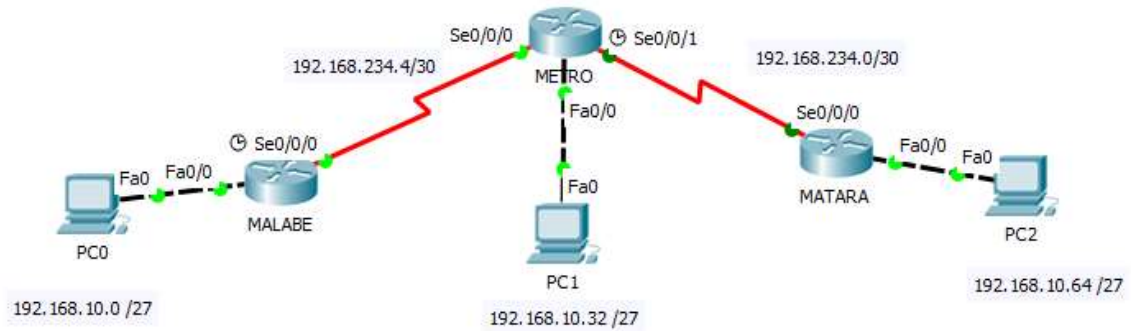


Computer Networks
2nd Year, 1st Semester

Work Sheet 4 – Self Study Material

Dynamic Routing Configuration – RIP, EIGRP



Initial configurations are already done in the sample packet tracer file provided (Configuring the Serial and Ethernet interfaces of routers, Assigning clock rate as 64000 for the DCEs, Configuring the PC's. (IP address, Subnet Mask and Default Gateway)).

1. Configure the routers with RIP to enable dynamic routing. You have to add the directly connected routes as given below.

Note: Use RIPv2 and disable auto summarization.

e.g:- MALABE(config)#router rip

MALABE(config-router)#version 2

MALABE(config-router)#network 192.168.10.0

MALABE(config-router)#network 192.168.234.4

MALABE(config-router)#no auto-summary

2. View routing tables and analyze the entries. Use the following command.

MALABE#show ip route

Before learning the routes the routing table will display only the directly connected routes. As shown below.

192.168.10.0/27 is subnetted, 1 subnets

C 192.168.10.0 is directly connected, FastEthernet0/0

192.168.234.0/30 is subnetted, 1 subnets

C 192.168.234.4 is directly connected, Serial0/0/0

After enabling rip in all routers, the routing table of MALABE router will display as shown below.

```
192.168.10.0/24 is variably subnetted, 3 subnets, 2 masks
R 192.168.10.0/24 [120/2] via 192.168.234.5, 00:00:18, Serial0/0/0
C 192.168.10.0/27 is directly connected, FastEthernet0/0
R 192.168.10.32/27 [120/1] via 192.168.234.5, 00:00:18, Serial0/0/0
192.168.234.0/30 is subnetted, 2 subnets
R 192.168.234.0 [120/1] via 192.168.234.5, 00:00:18, Serial0/0/0
C 192.168.234.4 is directly connected, Serial0/0/0
```

3. Use 'ping' command to check the connectivity
4. Remove RIP from all the routers.

```
MALABE(config)#no router rip
```

5. Configure the routers with EIGRP to enable dynamic routing. When enabling eigrrp we need to include the autonomous system number. Autonomous system number is same in all three routers.

Note: Disable auto summarization.

```
MALABE(config)#router eigrrp 1
MALABE(config-router)#version 2
MALABE(config-router)#network 192.168.10.0
MALABE(config-router)#network 192.168.234.4
MALABE(config-router)#no auto-summary
```

6. Use 'ping' command to check the connectivity.
7. Enable User Level Passwords to Malabe Router.

Console password

```
MALABE(config)#line console 0
MALABE(config-line)#password C123
MALABE(config-line)#login
```

Telnet password

```
MALABE(config)#line vty 0 3
MALABE(config-line)#password T321
MALABE(config-line)#login
```