Enhanced Interior Gateway Routing Protocol (EIGRP)

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EIGRP

- Enhanced Interior Gateway Routing Protocol (EIGRP
- It is a dynamic routing protocol
- In dynamic routing protocol it comes under the category of hybrid routing protocol
- Distance metric is hop count, bandwidth, latency etc
- Uses autonomous number for configuring EIGRP on a router
- A single router can have only 1 autonomous number
- Router have same autonomous number can only communicate with each other
- Single autonomous number can have maximum of 255 routers
- EIGRP supports classless ip addressing

EIGRP configuration

Consider the internetwork in Fig 1. This internetwork uses only one autonomous number, i.e., 1.

Router-0 Configuration

```
Router>
Router>en
Router#conf t
Router(config)#hostname Router0
Router0(config)#router eigrp 1
Router0(config-router)#network 192.168.1.0
Router0(config-router)#network 1.0.0.0
Router0(config-router)#exit
Router0(config)#exit
Router0#sh ip route
Router0#sh running-config
Router0#copy running-config startup-config
```

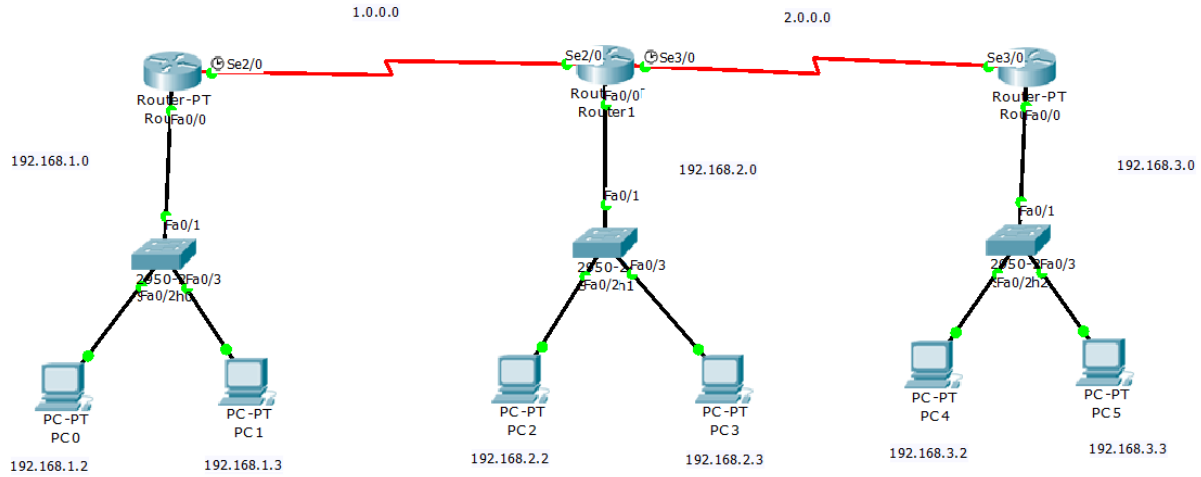

Figure 1: Three routers internetwork

Router-1 Configuration

```
Router>
Router>en
Router#conf t
Router(config)#hostname Router1
Router1(config)#router eigrp 1
Router1(config-router)#network 1.0.0.0
Router1(config-router)#network 192.168.2.0
Router1(config-router)#network 2.0.0.0
Router1(config-router)#exit
Router1(config)#exit
Router1#sh ip route
Router1#sh running-config
Router1#copy running-config startup-config
```

Router-2 Configuration

```
Router>
Router>en
Router#conf t
Router(config)#hostname Router2
Router2(config)#router eigrp 1
Router2(config-router)#network 192.168.3.0
Router2(config-router)#network 2.0.0.0
Router2(config-router)#exit
Router2(config)#exit
Router2#sh ip route
Router2#sh running-config
Router2#copy running-config startup-config
```