

Router basic configuration

Usman Wajid
usman.wajid88@gmail.com

FAST, Peshawar

Router basic configuration

Before implementing any routing protocol we need to do some basic configuration for all the routers in the network. Consider the network in Fig 1. In this network we have the following devices and networks

- Six PCs
- Three Routers
- Three Switches
- Nine straight-through cables
- Two serial cables
- Two Wide Area Networks (WANs), i.e.,
 - 1.0.0.0
 - 2.0.0.0
- Three Local Area Networks (LANs), i.e.,
 - 192.168.1.0
 - 192.168.2.0
 - 192.168.3.0

PC-0 Configuration

IP address: 192.168.1.2
Subnet mask: 255.255.255.0
Default Gateway: 192.168.1.1

PC-1 Configuration

IP address: 192.168.1.3
Subnet mask: 255.255.255.0
Default Gateway: 192.168.1.1

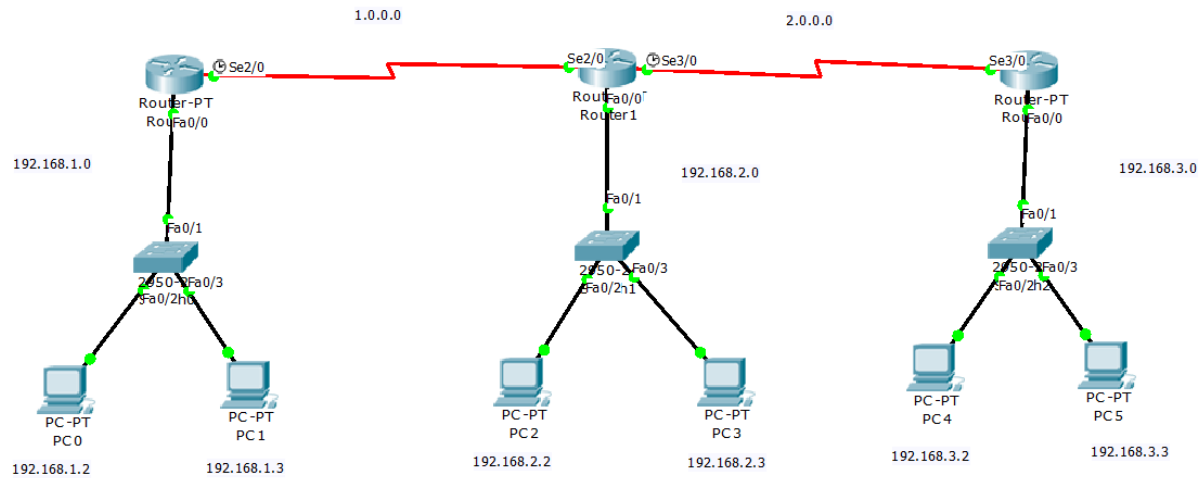


Figure 1: Three routers network

PC-2 Configuration

IP address: 192.168.2.2
Subnet mask: 255.255.255.0
Default Gateway: 192.168.2.1

PC-3 Configuration

IP address: 192.168.2.3
Subnet mask: 255.255.255.0
Default Gateway: 192.168.2.1

PC-4 Configuration

IP address: 192.168.3.2
Subnet mask: 255.255.255.0
Default Gateway: 192.168.3.1

PC-5 Configuration

IP address: 192.168.3.3
Subnet mask: 255.255.255.0
Default Gateway: 192.168.3.1

Router-0 Configuration

```
Router>en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname Router0
Router0(config)#interface fastEthernet 0/0
```

```
Router0(config-if)#ip address 192.168.1.1 255.255.255.0
Router0(config-if)#no shut
Router0(config-if)#exit
Router0(config)#interface Serial 2/0
Router0(config-if)#ip address 1.0.0.1 255.0.0.0
Router0(config-if)#clock rate 64000
Router0(config-if)#no shut
Router0(config-if)#exit
Router0(config)#exit
Router0#
```

Router-1 Configuration

```
Router>en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname Router1
Router1(config)#interface fastEthernet 0/0
Router1(config-if)#ip address 192.168.2.1 255.255.255.0
Router1(config-if)#no shut
Router1(config-if)#exit
Router1(config)#interface Serial 2/0
Router1(config-if)#ip address 1.0.0.2 255.0.0.0
Router1(config-if)#no clock rate
Router1(config-if)#no shut
Router1(config-if)#exit
Router1(config)#interface Serial 3/0
Router1(config-if)#ip address 2.0.0.1 255.0.0.0
Router1(config-if)#clock rate 64000
Router1(config-if)#no shut
Router1(config-if)#exit
Router1(config)#exit
Router1#
```

Router-2 Configuration

```
Router>en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname Router2
Router2(config)#interface fastEthernet 0/0
Router2(config-if)#ip address 192.168.3.1 255.255.255.0
Router2(config-if)#no shut
Router2(config-if)#exit
Router2(config)#interface Serial 3/0
Router2(config-if)#ip address 2.0.0.2 255.0.0.0
Router2(config-if)#no clock rate
Router2(config-if)#no shut
Router2(config-if)#exit
```

```
Router2(config)#exit  
Router2#
```