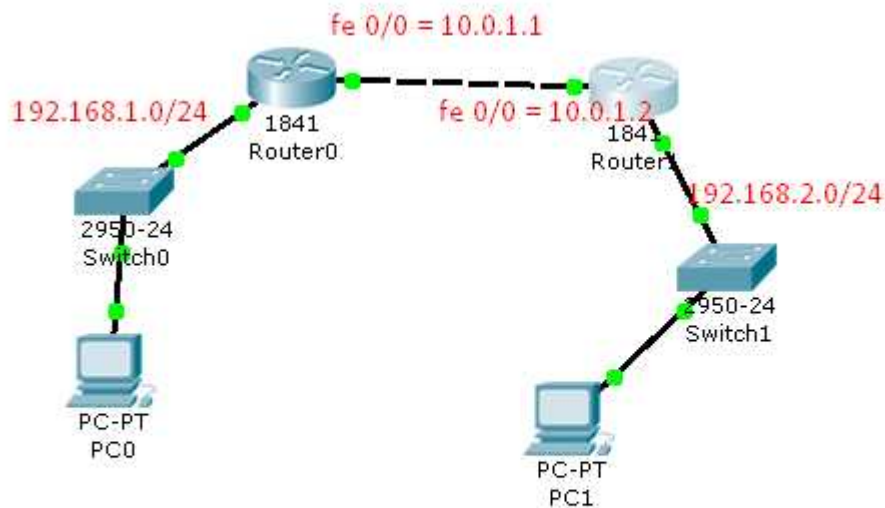# Routing Information Protocol (RIP)

Router0

Router(config)#interface fastEthernet 0/1
Router(config-if)#ip address 192.168.1.1 255.255.255.0
Router(config-if)#no shutdown

Router(config)#interface fastEthernet 0/0
Router(config-if)#ip address 10.0.1.1 255.255.255.0
Router(config-if)#no shutdown

Router1

Router(config)#interface fastEthernet 0/1
Router(config-if)#ip address 192.168.2.1 255.255.255.0
Router(config-if)#no shutdown

Router(config)#interface fastEthernet 0/0
Router(config-if)#ip address 10.0.1.2 255.255.255.0
Router(config-if)#no shutdown

Check Routing

Router#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
    D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
    N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
    E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
    i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
    * - candidate default, U - per-user static route, o - ODR
    P - periodic downloaded static route

Gateway of last resort is not set

    10.0.0.0/24 is subnetted, 1 subnets
C   10.0.1.0 is directly connected, FastEthernet0/0
C 192.168.2.0/24 is directly connected, FastEthernet0/1

Steps to Configure RIP Routing

Router 0

Router(config)#router rip
Router(config-router)#network 10.0.1.0
Router(config-router)#network 192.168.1.0
Router(config-router)#exit

Router#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
    D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
    N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
    E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
    i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
    * - candidate default, U - per-user static route, o - ODR
    P - periodic downloaded static route

Gateway of last resort is not set

    10.0.0.0/24 is subnetted, 1 subnets
C   10.0.1.0 is directly connected, FastEthernet0/0

C   192.168.1.0/24 is directly connected, FastEthernet0/1
R   192.168.2.0/24 [120/1] via 10.0.1.2, 00:00:07, FastEthernet0/0

Router 1
Router(config)#router rip
Router(config-router)#network 10.0.1.0
Router(config-router)#network 192.168.2.0
Router(config-router)#exit

Configure RIP v2

Router 0
Router(config)#router rip
Router(config-router)#
Router(config-router)#vers
Router(config-router)#version 2

Router#show ip protocols
Routing Protocol is "rip"
Sending updates every 30 seconds, next due in 25 seconds
Invalid after 180 seconds, hold down 180, flushed after 240
Outgoing update filter list for all interfaces is not set
Incoming update filter list for all interfaces is not set
Redistributing: rip
Default version control: send version 2, receive 2
  Interface   Send Recv Triggered RIP Key-chain
  FastEthernet0/0   2   2
  FastEthernet0/1   2   2
Automatic network summarization is in effect
Maximum path: 4
Routing for Networks:
       10.0.0.0
       192.168.1.0
Passive Interface(s):
Routing Information Sources:
       Gateway   Distance   Last Update
       10.0.1.2   120   00:01:03
Distance: (default is 120)