Assignment No. 83

Title : RIP / OSPF / BGP protocol

Problem stmt :
Configure RIP / OSPF / BGP using packet tracer.

Objective :
1. To understand the concept of dynamic routing
2. To understand dynamic routing protocols.

Outcome : students will be able to :
1. To configure and understand RIP protocol using packet tracer.

H/w & S/w required :
Fedora 20 os
cisco Packet Tracer
i3 Processor
mouse, keyboard

Theory :
Dynamic Routing :
Dynamic routing is a networking

technique that provides optimal data routing Unlike static routing dynamic routing enables routers to select paths according to real-time logical network layout changes

Dynamic routing occurs when routing protocol. It is a dynamic routing protocol used is large to very large IP networks.

Dynamic routing protocols

1. OSPF (open Shortest path first)

OSPF is a link state routing protocol It is a dynamic routing protocol used in large to very-large IP networks. The protocol uses a link-state database & link state database & link

The algorithm used for OSPF to determine best routes relies on the link-state database & allows OSPF to update its router are faster than RIP when a network change is countered.

2. BGP (Border Gateway Protocol)
BGP is used to exchange routing information for the internet & is protocol used between

ISPs. The protocol can connect together any internetworks of autonomous systems using arbitary topology.

3. RIP (Routing Information Protocol)

RIP is a dynamic routing protocol which uses hop count as a routing metric to find the best path betn source & destination network.

RIP configuration:
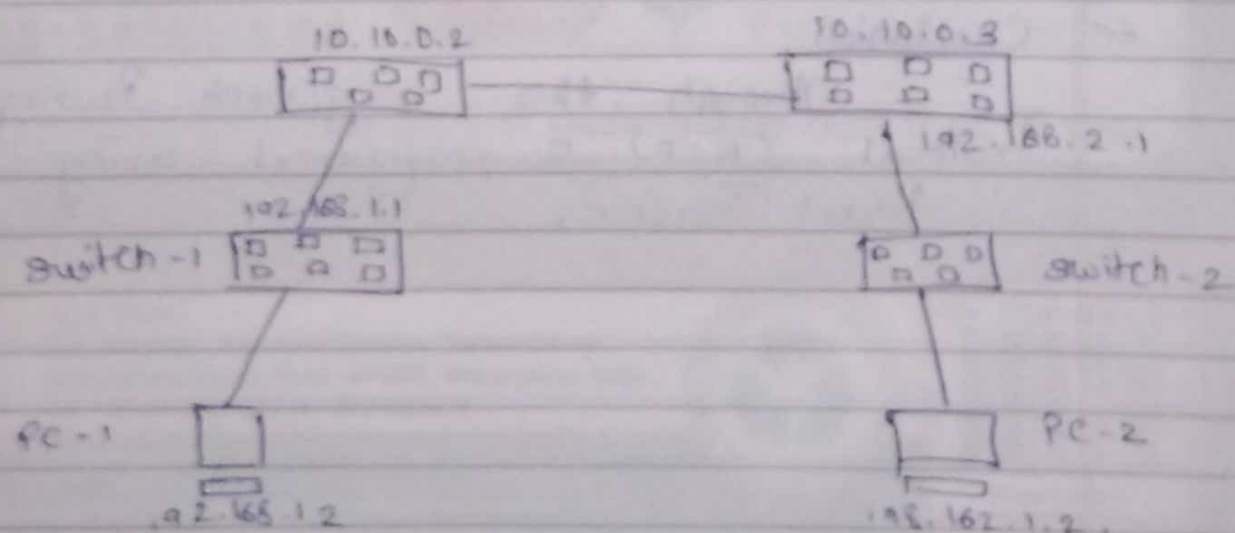
Features of RIP:
1. Updates of the network are exchanged periodically
2. Full routing tables are sent in updates.

3. Updated are always broadcasted

- Configure RIP for Router 1
    # router rip
    # network 192.168.1.0
    # network 10.0.0.0

- configure RIP Router 2:
    # router rip
    # network 192.168.2.0
    # network 10.0.0.0

- Conclusion:
    Through this assignment Routing Information Protocol (RIP) is configured using cisco Packet Tracer.