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Lab Assignment 6

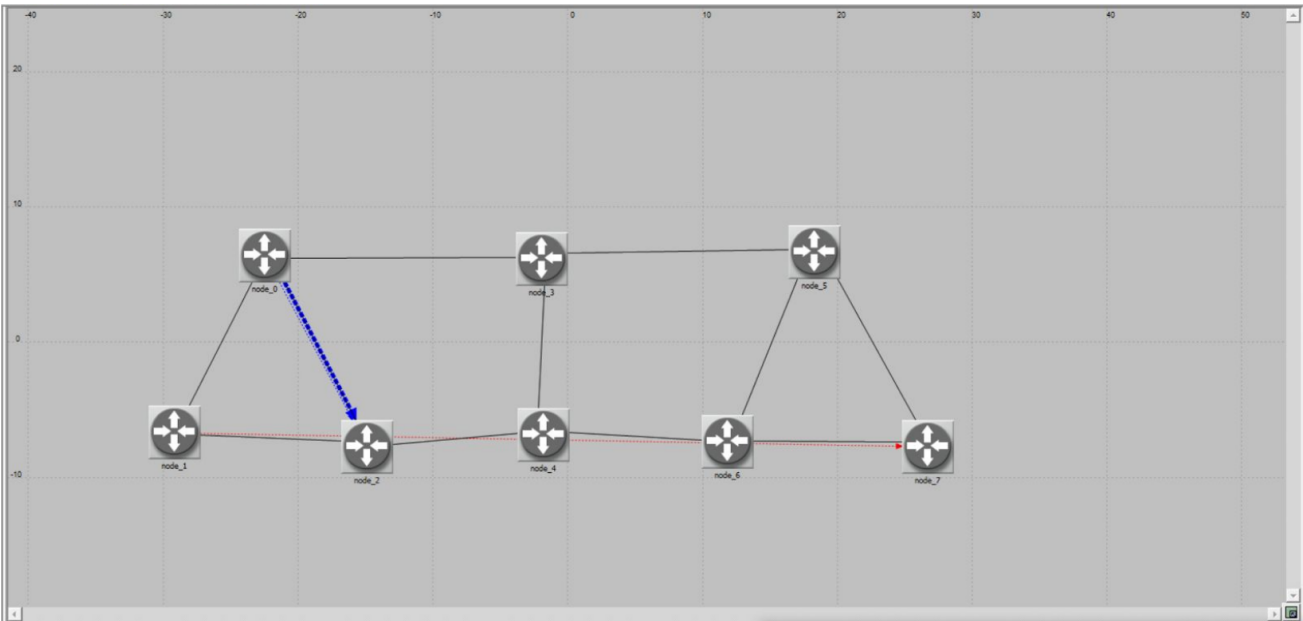
This assignment aims to make us familiar with the hardware and software aspects of computer networking and extracting information related to computer networking.

Problem Statement 1

Q: Use OPNET to implement OSPF (Open Shortest Path First) protocol.



OSPF in No Areas Scenario (Senario 1)



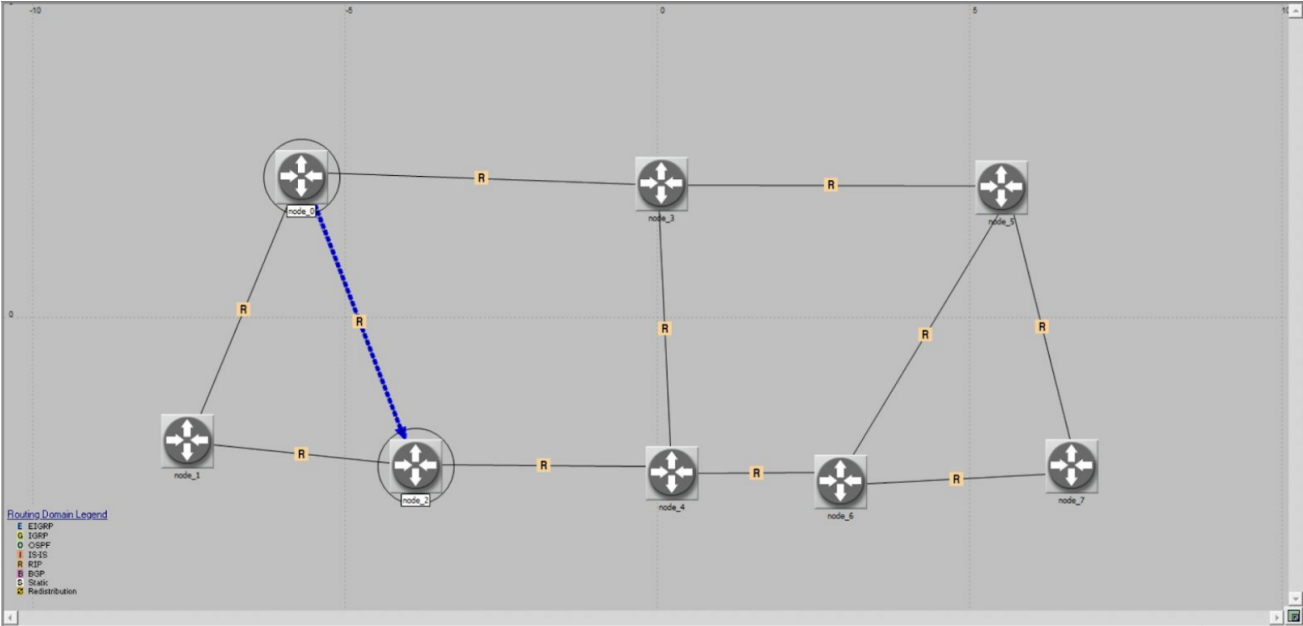
OSPF in Areas Scenario (Senario 2)

As it's clear in the diagrams, the no areas scenario, the path taken is using the three 5, 5, 5 cost edges (i.e. cost = 5) which is less than the direct like 20.

But in ares scenario, the protocol prefers tha path within its area. So, it takes the direct like i.e. cost = 20.

Problem Statement 2

Q: Use OPNET to implement RIP (Routing Information) protocol on the same network configuration as given in Problem 1.



Routing Information Protocol (RIP) in the previous configuration

In Routing Information Protocol, the cose is the same for all edges. It counts and minimizes the number of hop counts for finding the best path. So the best path should be the direct like between the routers.