

ABSTRACT

Today, the computers network growing so fast and becoming so huge. Because of that, stock of IP version 4 it's on the limits. Therefore, come the next generation IP as known as *IP version 6 (IPv6)*. In this *IPv6*, the feature has a few changes from the IP version 4. So because of this new features, the new protocols routing has needed for handling the new feature of the *IPv6*.

To serves the *IPv6* features, there are coming protocols routing with new technology. One of them are *RIPng (Routing Information Protocol Next Generation)* as known as *RIPv6* and *OSPFv3 (Open Shortest Path First version3)*. They have a great difference between the algorithm they used, *RIPng* with their *distance-vector* routing protocol and *OSPFv3* with their *link-state* routing protocol.

With that difference, it's nice to see which protocol routing will be to better from the other. So it will be great if comparing both of them, and with it we will know which one the more effective to do process routing in *IPv6* neighbors. Besides of that, *OSPFv3* and *RIPng* are the developing for their last technology that used in *IPv4*, they are *OSPFv2* n *RIPv2*.

In this Final Project, there will be an analisisist about abilities and capabilities from *RIPng* and *OSPFv3* to do the processing routing in *Ipv6* environment with spesific topologies. Expecting in the end, this Final Project will help to see and to choose which the better between the two of them.

Keyword : *IPv6, OSPFv3, RIPng, Network QoS*