

## **ABSTRACT**

In networking, we often hear about routing protocol. Routing is a process that take a packet from a device and send it through a network to another device in another network.

Protocol is a rule that control the devices in network to communicate with another one. While routing protocol is protocol that use to handle a table routing on router. There are two category of protocol routing, that is Interior Gateway Protocol (IGP) and Exterior Gateway Protocol (EGP). Interior Gateway Protocol is a routing protocol that handle the routing process in internet network in an autonomous system. Exterior Gateway Protocol is needed because Interior Gateway Protocol is not created for a big networking, so internet networking is formed to a hierarchy that divide internet networking to autonomous system. In general, Autonomous System (AS) is defined as internet networking that have same administration control and technical.

In dynamic routing, there are distance vector and link state. The examples of link state are Open Shortest Path First (OSPF) and Intermediate System to Intermediate System (IS-IS).

From the research, we know that the performance of ISIS routing protocol is better than OSPF. We can see it from the delay, jitter, and packet loss of ISIS is less than OSPF's, while the throughput of ISIS is better than OSPF's

Keyword : Routing protocol, dynamic routing, OSPF, IS-IS