## ABSTRACT

Multicasting is the ability of a communication network to accept a single message from an application and to deliver copies of the message to multiple recipients at different locations.

Determine of routing protocol in multicast network is one of important factor to get application with standard quality.

With independent characteristic to unicast routing protocol, Protocol Independent Multicast (PIM) can implementation in a network with any unicast routing protocol.

Protocol Independent Multicast (PIM) divided to two types: Protocol Independent Multicast-Dense Mode (PIM-DM) and Protocol Independent Multicast-Sparse Mode (PIM-SM)

The result this research show that decrease application quality because enhance traffic in network and when flooding mechanism on Protocol Independent Multicast-Dense Mode (PIM-DM) traffic concentration when a network use Protocol Independent Multicast-Sparse Mode (PIM-SM) with Rendezvous Point (RP) mechanism.

Keyword: Unicast, Multicast, PIM-DM, PIM-SM, Flooding, Rendezvous Point