

ABSTRACT

Ethernet technology is used as a solution for transmitting voice, data packets and images. Metro ethernet is the answer to network quality that has high bandwidth and bitrate by performing Quality Of Service performance such as Delay, Packet Loss and Throughput. Integration link is a linking activity between 2 or more nodes physically or logically so that they can communicate with each other. The transmission medium as a visitor to a Metro Ethernet link is optical fiber because the transmission medium has high speed and low delay. Link integration activities are divided into several stages of activities including preparation activities, pulling patchcord cables, checking link straightness, preactivity, router configuration, ping tests between devices, activation of routing protocols, and after-activity procedures. The quality of the integration link between Metro Ethernet devices can be seen by implementing all integration procedures. Bandwidth demand is a factor in this research. To solve this problem, Integration Link is used. This research begins with analyzing the existing network by going directly to the field to obtain detailed and accurate data. The results can use TIPHON standardization with an average delay value of 11.7 ms, a packet loss value of 0.00% and the resulting throughput value of 590.2 kbps.

Keywords: *Metro Ethernet, QoS, Fiber optic, link integration*