

ABSTRACT

The existence of the application Internet Protocol Television or IPTV is believed to be shifted and become the new competition in the subscription television business, particularly cable or satellite television. IPTV is one of the real-time applications that require bandwidth and high data transfer speed and sensitive to delay and jitter. While naturally IP network is best effort. MPLS (Multi Protocol Label Switching) is a QoS scheme is applied to the network NGN (Next Generation Networks). MPLS combines the functions of layer2 switching and routing in layer3. MPLS technology is thus expected to overcome the decrease in QoS.

In this final exam, IPTV application is implemented in MPLS networks. The implementation will be built in a network that supports MPLS technology with a simple topology using network emulator, GNS 3. Then, in the network, quality of IPTV which is submitted to the MPLS networks is analysed by using several testing scenarios such as the addition of background traffic and several codec level. Then to find out resulting QoS, measured QoS parameters are delay, jitter, packet loss, and throughput.

Expected from the research of this final task will be known how much MPLS technology influence IPTV applications.

Keyword : IPTV, MPLS, delay, jitter, packet loss, dan troughput.