ABSTRACT

Multimedia becomes popular among telecommunication for short of time. Only in a few year, various multimedia services offer to the end user like video streaming, video on demand, on line gaming, teleconferencing and others. Multimedia becomes new trendsetter for modern human living.

Wireless telecommunication has been changed and evolved in how to transmit the information. The circuit switch become packet switch. Data transmission in IP network has became important thing because the high efficiency in using the network resource. Next, all traffic in the telecommunication will be transmitted in IP based. On of the network topology that support the IP based is UMTS core network.

Video is one of the multimedia part that have many attention. It needs high bit rate in the transmission in order to get good QoS in packet based. Delay, packetloss, and queuing are the important parameter in video transmission. Video compression is a dominant factor in video transmission in packet-based network with proper parameter.

This final task will test the performances of MPEG-4 in video streaming that will transmit in UMTS core network based IP MPLS. The simulation will be generated with NS 2 in order getting delay, packetloss and queuing in video streaming. MPEG-4 should fulfill the video streaming parameter in UMTS core network based IP MPLS because MPEG-4 support the video streaming in IP network with low-bit rate or other high-bit rate network topology.