ABSTRACT

Nowadays, the duty of lecturer is not just teaching, but also many who are involved in collaborative research, or even involved in the execution of joint projects in industry which are usually located outside of the campus. With these conditions, is not uncommon lecturer faced with the choice between the duty to teach and the necessity to attend a meeting/assignment out of the town. E-Learning is one of the application that using IT (Information Technology). Video conferencing is one of the E-Learning application that can distributed on-line. The solution given by video conference is expected to be a solution to the lecture's presence in the class.

In this final task done the implementation and analysis of video conference for long distance college activity with two Scenarios. In Scenario 1 used the ADSL Modem as client media access to the server, and the USB Modem used in Scenario 2. The software that used is BigBlueButton which is a web conferencing system server based on open source.

Based on the results of system testing and implementation of two scenarios, found that testing through Scenario 1 has QoS with biggest delay on client 1 at 0.074149 s, for biggest Jitter on client 2 at 0.010728433 s, for biggest packet loss on client 1 at 0.020949407 %, for highest throughput on client 3 for 307.2921909 kbps, for the subjective MOS value at 3.97 which can be classified as 'Very Good'. While for Scenario 2 has QoS with biggest delay on client 1 at 0.0871133 s, for biggest Jitter on client 3 at 0.044680515 s, for biggest packet loss on client 1 at 0.016078201 %, for highest throughput on client 3 for 93.48957787 kbps, for the subjective MOS value at 1.63 which can be classified as 'Poor'.

Keywords : e-Learning, video conference, QoS