Abstract

Push to Talk or PTT is two way voice communication that using one way transmission system (half duplex). Where in a time the turn to talk is giving to one side and the other side only as a listener.

In this final task was developed a PTT application using RTP (Real-time Transport Protocol) for sending voice packet and SIP (Session Initiation Protocol) for establish and tear-down a session that was implemented on peer-to-peer computer network. And then the testing was done for measure end-to-end delay and establishment and tearing-down a session delay to PTT application that was deployed. Besides that, on this final task the testing was done for measure user satisfaction based on media session delay and session establishment delay that added to PTT application that was deployed, with the result writer can determine the maximum delay that accepted by the end user to this PTT application.

Result from the testing is the session establishment delay is bigger than the delay to tearing-down a session. This is caused by the count and size of messages that was exchange was different. Media session delays give less satisfaction than session establishment delay to the user on the communication.

Keywords: PTT, half duplex, RTP, SIP, peer-to-peer, end-to-end delay.