

ABSTRACT

A call center is a centralized corporate infrastructure for receiving and sending a large number of requests by telephone. Call centers in a business are usually used to interact with customers. Voice over Internet Protocol (VoIP) is an information technology that can communicate through an Internet Protocol (IP) network.

In this Final Project, QoS will be compared on RTP and SRTP protocol based on call center. Call center that was built using the Elastix VoIP server. In this Final Project test will compare each parameter of the Quality of Service (QoS) results on the RTP protocol and SRTP protocol.

QoS testing parameters in the RTP and SRTP protocols are packet loss, jitter, delay, and throughput. It is expected that the results of comparative testing on RTP and SRTP protocols are safe, clear, and accurate at the call center.

By using SRTP security is guaranteed, but the quality of performance will decrease because the packets sent are greater than RTP. This happens because the SRTP has an additional section for encryption, and undergoes an encryption and decryption process.

The results of the test can function well as expected, namely call center testing by looking at the comparison of RTP and SRTP protocols. Where the packet loss obtained in accordance with the ITU-T G.1010 standard is below 3%, the delay according to the ITU-T G.114 standard is less than 150 ms, and the jitter according to the ITU-T G.114 standard is less than 50 ms

Keywords: *Call center, Elastix, VoIP, SRTP, RTP, QoS*