ABSTRACT

SMS Gateway is a software that is applied to the computer and by utilizing cellular technology that is integrated in order to distribute the messages that are generated through the system information via SMS media is handled by mobile networks. In this research conducted simulations to calculate the QoS parameters is a Delay, Throughput, Jitter and Packet Loss with implementing the Integrated Services QoS model using protocols that Signaling Resource Reservation Protocol (RSVP), especially at the time of the transfer of data packets in the SMS Gateway service model that simulated the broadcast feature with the software Optimized Network Engineering Tool (OPNET). From the results of measurements on the first simulation scenario without using RSVP protocol resulted in a delay of 52.74 ms, 0.96 bps throughput, packet loss and jitter 0.984% 2.77 ms. While the results of measurements on the second scenario is by using the RSVP protocol resulted in a delay of 6.62 ms, 0.386 bps throughput, packet loss and jitter 0.97% 8.59 ms.

Keywords: SMS Gateway, Broadcast, Quality of Service (QoS), Throughput, Delay, Jitter, Packet Loss, Optimized Network Engineering Tool (OPNET), Integrated Services QoS Model, RSVP