Abstract

Multiplayer Online Game is a type of game that requires an internet network to be able to play with opposing players so that the game can be more interesting because both players can fight each other rather than playing against artificial intelligence. One of the most common multiplayer online gaming conditions is a situation where the game experiences lag so the game feels unattractive to be played by the player. The term used to describe this condition is QoE. Console game devices will not be able to run multiplayer online games without a link between players, namely communication protocols such as MQTT. In this study, the implementation of MQTT was conducted to improve the performance and level of user satisfaction from online multiplayer games, and the Mean Opinion Score (MOS) method was used to record the data needed to analyze QoE. In this paper the results are that QoE in the PingPong game is 3.9 units of MOS while the TicTacToe game is 4 units of MOS. The results showed that delay and jitter greatly affected QoE as a whole, while the retransmission packet and duplicate packet did not have a large effect on QoE.