ABSTRACT

Lack of knowing traffic information causing road users stuck in traffic jam on the roadway. A remote traffic monitoring system is required to prevent the driver from being stuck in traffic jam.

Traffic jam monitoring using Raspberry pi Camera become one of the solutions to give the information about traffic condition on the roadway. In order for road users to know the traffic condition, it needs a liaison between system to the client in the form of web server to show the streaming video in web browser . To access the streaming video requires a huge packet data usage. Therefore, packet data saving by the experiment scenarios change the communication network, resolution, and frame rates of the video. From each experiment scenarios, QoS (Quality of Service) measurement were made to find out delay, jitter, throughput, and packet drop.

From the QoS (Quality of Service) measurement result, the most optimum quality of the video streaming was obtained, by using 3G communication network, 640x480 video resolution and frame rates 20 FPS because it has low delay, less data usage and smooth video quality.

Keywords: *Raspberry pi 3, QoS, streaming video,monitoring*