ABSTRACT

It can be seen that rapid growth of communication technology followed by numerous requests of multimedia information access over the internet this days has made video streaming application becoming more attractive. Still, video transmission, especially real time video streaming often delivers picture seems not smooth when seen at receiver side. This condition could be caused by big traffic resulted from transmission process of data stream.

In this paper we propose USOT, an alternative method to handle data size problem of video stream that has to be sent. USOT method is based on inter-frame compression technique using frame change detection. In USOT method, basic differences between frames will be obtained and sent through network to client side in video streaming application.

Research was performed considering average processing time, average de-processing time, average data size ratio, and average one-way delay as parameters of observation. As expected, experimental result showed that processing time increase as the number of movement of objects captured by web cam increase. One-way delay to send each packet was less than 150 ms, which is able to be tolerated in network service. So, we conclude that USOT method still can be used as an alternative method for video streaming.

Keywords: *video streaming, frame change detection, USOT, network*