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## ABSTRACT

Along with the introduction of HSDPA system to the public in recent years, data traffic passing through mobile wireless networks has increased significantly. This is related by the number of downloads and streaming activities of users who do not want to be left behind to take advantage of this wireless broadband service. And is not foreign to us that download activity is always get along with the TCP protocol for data and multimedia use RTP or UDP.

The Real-time Transport Protocol (RTP) defines a standard packet format for audio and video delivery over the Internet. It is developed by the Audio-Video Transport and the Working Group of the IETF was first published in 1996 as RFC 1889, RFC 3550 and replaced by the year 2003. However, RTP has a shortage whenever they are get along with TCP. They tend to compete in using the available bandwidth in the connection.

Of the several solutions have been proposed to overcome the shortage of RTP on wireless media, TFRC is one proposed alternative that deserves to be tested. By using equation-based rate control, TFRC is expected to reduce the level of fluctuations on an RTP connection and increase the friendliness between connections.

From the research results are obtained that can improve the acquisition throughput TFRC when there is ACK compression and packet loss on the HSDPA network. However there are some simulations that have not undergone such changes during bad state of the state, the average throughput and packetloss on TFRC and RTP is constant. In the state of multiple users and sources, TFRC has a very good improvement in the obtained throughput, even though it has a decrease.

Keywords : TFRC, HSDPA, RTP, VoIP