

ABSTRACT

Video streaming is one of service which provided by cellular operator. In video streaming service, user does not have to wait downloaded file processing but at the same time user can download and play. In video streaming, frames are sent one by one from server, and then client will receive and display the frames. Frames can not arrive too long or too slow. And then, the changing condition in network CDMA 2000 1x EV-DO can effect to video streaming quality which is sent by server.

In this final project, Network Simulator is using to calculate the effect of video streaming quality changes over CDMA 2000 1x EV-DO network. *EvalVid* is used to process video into trace file format. This final project will analyze video streaming quality content that received by user/client using parameters like delay, loss packet, PSNR, buffer size allocation, and the differences of bit rate video. Then, Mean Opinion Score is used for subjective calculation.

From result of simulation shows that lower bit rate used having effect to quality of PSNR video. If bit rate video used are bigger so the value of PSNR will be closely with PSNR of video reference. After video has been received by mobile station, packet loss are not only caused by transmission process but it can be caused by encode/decode process also. The traffic which is passed in this simulation is one traffic only, so there are not different delay or delay are constantly even in any BLER. Because each node does not need sharing the capacity to pass traffic except for video traffic. From the result of subjectively measuring by using Mean Opinion Score (MOS) method conclude that bigger BLER for each video so more lower the quality of video received by mobile station and the result of subjectively measuring are equal with the result of objectively measuring.