

ABSTRACT

One of streaming services is video streaming, when user can access the need of video content on video streaming services that received by user which can be variable depend on the network condition.

In video streaming, frames are sent one by one from server, then client will receive and display the frames. In order to get constant frame rate, receiver must get frame constantly, so delay can effect video quality in client to be tolerated, beside other parameters like buffer allocation and encoder.

When simulation, there is loss packet in network, delay and loss packet after video throughout the UMTS network, the condition will be analized to know the quality of video transmitted.

When there is no retransmission, loss packet will be higher, so that the quality get lower but of course there will be a consequent to be received when we do retransmission, there is the higher delay. Because of that in this final project, we use UDP (without retransmission).

On video transmission system, loss packet not only become the most important thing to calculate video quality, but also frame delay.

Digital video usually consist of frames that must be displayed in constant rate. Jerkiness will be occurred when we display frames before the time determinated. This case can be handled using play-out buffer.

In this final project, Network Simulator is using to calculate the effect of video streaming quality changes over UMTS 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 bit rate video. Then, Mean Opinion Score is used for subjective calculation.