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PERFORMANCE COMPARISON OF VIDEO STREAMING APPLICATION USING DIFFERENT VIDEO CODECS IN MOBILE WIMAX NETWORK

Dissertation submitted in partial fulfilment of the requirements for the degree of Master of Science in Telecommunication and Information Engineering

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ABSTRACT

The end-to-end performance application in the broadband wireless networks is a key concern from the provider perspective. Mobile WiMAX is designed to support a wide range of applications including streaming video. Hence, in this thesis, we examine the performance metrics of packet loss, jitter, packet end-to-end delay and throughput while streaming for one hour three types of video codecs. We analyze and compare the performance of the video codecs of MPEG-2, MPEG-4 and MPEG-4 Part 10 (H.264/AVC). These video contents were streamed via the Mobile WiMAX network. The investigation was done using the OPNET Modeler 14.5. Simulation results show that H.264/AVC is the best codec to be streamed in the network.

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