

## **ABSTRACT**

Video is an important media for communication and entertainment. With the technologies now days, revolution is occur in video compression and communication. Development in compression technique give escalation on spreading a video, one of the ways is by streaming video. But, because of lack of bandwidth and other obstacle so it is need some video compression technique that can give a good video quality with low bit-rate. One of the video compressions that exist is Ogg Theora.

In this final project, Ogg Theora was used as the compression technique and Ogg as the container in streaming a video. Then, streaming video simulation tried on LAN and W-LAN. Simulation on LAN the streaming occurred between building E and C and SC. While on W-LAN simulation occurred in LoS and Non LoS condition with different distances. Performance measurement will be taken in 10 times for each scenario.

From the measurement result of throughput and packet loss show that performance of Ogg Theora on LAN and W-LAN is good. And from the measurement result of delay and jitter, Ogg Theora gives the biggest result than H264 & MPEG-4 especially on W-LAN. While on LAN, Ogg Theora gives delay and jitter result the smallest than H264 & MPEG-4. Although Ogg Theora is an open source, it can be equal to the standards that already exist.

Key words: Theora, Ogg, compression, streaming video, LAN, W-LAN.