ABSTRACT

Telecommunication technology's recent days have increases demand of video communication became an urgent issue must fulfill. To fulfill the demand using video coding technique which can bringing high quality video, low file size when transmitted to users and have a same quality with video source before transmitted.

This request now days can fulfill with video coding technique recommended by ITU-T with *Advance Video Coding* (AVC), many reference said H.264 or MPEG part 10 dominated video coding standard community past few years. H.264 produce low bit rate but increase a trade off (decrease video quality) consequences.

This final project aim comparison of performance baseline profile and main profile H.264 in W-LAN network. Parameter that will be calculate to measure Quality of Service are PSNR, SSIM, PEVQ, and parameter to measure quality in network are one way jitter and inter arrival jitter. Simulation packet delivery video using Baseline profile and Main profile and packet delivery data in W-LAN using network simulator-2 in streaming condition. Method in this final project doing research, make a simulation and analyzes throughput.

Simulation result give a value using Main profile always have a better performance than Baseline profile in Average PSNR 37.97 dB for Main profile and 36.38 dB for Baseline profile. SSIM gives value 96.04% for main profile and 95.72% for Baseline profile. PEVQ gives value 4.5667 for Main profile and 3.8 for Baseline profile. Jitter gives value 1.50761 ms and 2.80686 ms for one way jitter and inter arrival jitter to Main profile mean while Baseline profile gives value 0.399625 ms and 0.700466 ms it make Main profile increase value one way jitter and inter arrival jitter than Baseline profile when transmitted in W-LAN.

Key words : Baseline profile, Main profile, W-LAN.