ABSTRACT

Nowadays, internet already become a basic need and has been available in many places. Internet users in Indonesia have reached 82 million people, making Indonesia in 8th position in number of internet users. This could happen because of many Access Point (AP) wireless Local Area Network (WLAN) which placed in many public area or in the house.

WLAN is a wireless local area network which use radio frequency as transmission media, replacing the role of cable. WLAN uses IEEE 802.11 standard. In this study, model of Transmit Opportunity (TXOP) in WLAN 802.11 e/g is analyzed using Continuous Phase-Type Distribution method for Real Time Variable Bit Rate (RT-VBR). It is assumed that only TXOP influence the delay, each user has one TXOP and the other parameter is ignored. Analysis is performed in Hybrid Coordination Function-Controlled Channel Access (HCCA) and Contention Free Period (CFP) which give the *Quality of Service* (QoS) assurance. Thus, making them part of Medium Access Control (MAC).

By performing analysis for TXOP model, metastable TXOP for each bit-rate which could handle good RT-VBR communication is acquired. It is proven that metastable TXOP delay resulted from 100 users connected to AP do not exceed ITU standard. Delay is assumed originated only from HCCA-MAC layer.

Keyword: *delay,* WLAN 802.11 eg, *Continuous Phase-type Distribution, real time, variable bit rate,* HCCA, TXOP.