## ABSTRACT

Technological improvement of network and multimedia technology make product of multimedia networking such as video conference will be popular and important in so many utility. Requirement of communications are increasing so that it need guarantee of Quality of Service (QoS). One of the ways is to make it by using Resource Reservation Protocol (RSVP). Video conference, that of real-time application, required a guaranteed of bandwidth when the transmission done, so that it needed some mechanism of real-time application for resource reservation along the path.

This research analyze of video conference application performance using RSVP protocol compared to video conference without RSVP protocol in wireless network. The research is to find out performance improvement given by RSVP protocol to video conference application.

The result of RSVP implementation for video conference application in wireless network are a significant performance improvements of delay, jitter, and packet loss compared to without using RSVP. The number of improvements of delay and jitter respectively 46.89% and 31.05%. More over using RSVP could minimize  $\pm$  36% packet loss. RSVP also can improvement of image quality. That can be seen from MPQM (*Moving Picture Quality Metric*) calculation result. Simulation result show resource reservation witch make video conference seem connection oriented.

Keywords: Delay, Jitter, MPQM, Packet Loss, RSVP, Video conference, Wireless.