

## ABSTRACT

Wireless technology had been growing up so fast, where one of the popular wireless technology and many to use is Wireless Local Area Network (WLAN) technology. Wireless LAN uses a standard from IEEE, named 802.11x which a standard for wireless data network and uses unlicensed ISM (Industrial, Scientific and Medical) band : 902-928 MHz, 2400-2483.5 MHz and 5725-5850 MHz that unlicensed spectrum frequency radio (RF). Meanwhile Voice Over Internet Protocol (VoIP) is a technology that passing the voice using internet network with compression and codec speech changed into a packet data.

In this research, made a planning of voip service over wireless LAN network's division JTS (*Jaringan Telekomunikasi Selular*) which located on INTI building at sixth and seventh floor. This planning using H323 standard. It begins with pre – planning that include with survey, RSL measurement and voip measurement for quality of service : delay, jitter and packet loss. Then it will continue to the planning session that include with estimation traffic for voip capacity, coverage area, channel order and the last thing to do is setting a voip system over wireless LAN.

From the result of planning of voip service over existing wireless LAN network on division JTS base on H323 standard there are two device that must be add on the network. They are : Gatekeeper and MCU. In this planning only uses an acces point that belong to division JTS.

Keywords : Wireless LAN, VoIP, H323.