

## **ABSTRACT**

Internet Protocol (IP) technology bring development for telecommunication technology in Indonesia. With IP technology, it can accommodate full of service rate such as voice, facsimile, data and multimedia on one multifunction network. Lot's of advantage that's can take from IP network such as more efficiency usage channel, highest efficiency bandwidth, ownership cost network cheaper and capable for application new voice enable. That's way, lots of users use internet protocol private branch exchange (IP PBX) --which base on packet switch-.

IP PBX can handle the weakness of conventional PABX - which base on circuit switch – such as limited bandwidth for multimedia and limited convergence with data packet network. That's way need good network planning for IP PABX so it can optimize as needed. PABX network on STT Telkom has lot's of weakness such as limited capacity, terrible network management and there are view of component and spare part are broken and cannot be fix and replace because out of produced.

In this final task, take topics about Wireless DECT Network Planning on IP-PABX at STT Telkom area. There are two steps which is determination of situation BTS ( Base Station), area capable to be served by BTS, and forecasting traffic for a few year forwards by using software planning that is Radiowave Propagation Simulator ( RPS) and use the analysis propagation. Result expected from final task is a planning of optimal network Wireless DECT.

*Keywords : IP PABX , RPS,DECT*