

## ABSTRACT

*Softswitch is a new switching technique in telecommunication system that based on internet protocol (IP) and it has a big potential to replace the conventional switching technique. The appearance of this new technology is based on development trend of telecommunication network that will migrate from conventional switching technique to be a network with packet switched technique that fully based on Internet Protocol (IP). Softswitch class 5 can become an early step of an evolution to replace the role of conventional central up to the last point (local central). Thereby, it is possible to implement a fully IP based telecommunication network.*

*In Indonesia, there has been a planning to apply this system, that is to build a network based on Softswitch technology in some big cities in Indonesia. Bandung is one of the city that will be a place to implement the softswitch technology.*

*This Final Project discussed the planning of Softswitch class 5 based VoIP network, based on capacity parameter which is the amount of telephone line required for the next 2010, the bandwidth calculation and BHCA, optimally applied in Kandatel Bandung, that is connected to the development level of telephone subscribers, specially High End Market (HEM) and triple bundling services (voice, data, video) segment.*

*The result of this planning shows that an access gateway will be placed in some spots of local central area, which in the planning is designed to be able to serve all subscribers for the next years. Because in addition, the conventional central technique, will be replaced with the softswitch central according to the increase of telecommunication services requirement, specially in Kandatel Bandung.*

**Key words:** *softswitch, local central capacity, access gateway*