# ABSTRACT

*Network convergences from circuit switch based to packet switch based progress significantly. The progress indicated by migration step to future network known as Next Generation Network (NGN). Main component of NGN is soft switch as intermediacy tool between circuit switch in TDM network and packet switch in IP network. Research was done to investigate the capability of softswitch on handling various type of traffic such as voice, data, and video. It is impossible in this research to do some test in real network since NGN has not yet been implemented, in other words only test-drive phase limited (test bed) is available. So that one method to understand network performances is by doing simulation.*

*In this Final Project, modeling and simulation of softswitch component is done by using OPNET. Simulation and modeling include elements of softswitch network, such as: Media Gateway (MG), Signaling Gateway (SG), Media Gateway Controller (MGC), traffic generator. Packet processing on each component done by analyzing parameters, such as: packet delay, packet loss and jitter.*

*The results of this Final Project is expected to applied on analyzing network that has implemented NGN besides its purpose to do network planning such as predicting or estimating specification.*