

## **ABSTRACT**

The development of mobile communications technology today is rapidly increasing. Increasing number of customers requiring telecommunications service that is not limited to not only voice but also on access to data and multimedia. It is demanding on the infrastructure providers to support all these services. With the condition of the network owned by PT. Indosat today, it is necessary to migrate the network from the beginning to use technology Time Division Multiplexing (TDM) circuit-based switches to the network Internet Protocol (IP) based packet switch.

Softswitch concept emerged from the data networking phenomenon that has dominated the current communications network. Important activity of the phenomenon is a convergence of cellular networks and the migration towards future telecommunication networks Next Generation Network (NGN)-based data.

In this final methodology to be done is by analyzing the softswitch network in PT. Indosat to conduct field surveys to obtain data on the number of voice and data service needs. The analysis used will be more focused on the construction of the existing configuration in which the conditions of cellular networks will be integrated from TDM to IP-based.

From the analysis found that the quality of the network which includes the production of Minutes, ASR, NER and Occupancy that was originally using the TDM system after the migration to an IP system, the better its quality.

**Key words: Migration, TDM, IP**