

## **ABSTRACT**

As we know, most ATMs (Automatic Teller Machine) is now still using VSAT or leased line technology for its communication link with the server of each bank. However due to the current GPRS technology has become an alternative for the banks, especially seen from the operational costs are much cheaper than the rental price of VSAT links. GPRS technology is integrated at this ATM has some problems in its operation, such as the problem of voice traffic management, PDP contact failure, continuous handover, the problem of devices such as modems, adapter and SIM Card, network upgrading and other issues like power outages, robbery and computer damage.

In this final, the analysis and optimization was done on each ATM over GPRS problems. Optimization can be performed by two methods that are optimization in the Operation and Maintenance Center (OMC) PT Telkomsel and walk test in the field. Analysis on the OMC is using Remedy ticketing application, VNC viewer, OMC-Switching, TRAFFICA and GT-X. Walk test optimization is necessary to assist in analyzing the problem from the side of the radio performances. Walk test analysis performed on 3 cases of ATM over GPRS, there is ATM SPBU Pancoran, ATM Alfamart Perdatam and ATM Plaza Semanggi. Results from the measurement data are analyzed to later determine the optimization step. Optimization is done in cases such as the relocation of ATM over a GPRS modem antenna, tilting the antenna and channel configuration to obtain a dedicated PDCH ATM performance over GPRS is better.

**Key words : ATM, GPRS, ATM *over* GPRS**