ABSTRACT

For the last decade, information system has been developed to far more innovative and varied in techniques thanks to major advances in technology. This has provided community with various services in the need of more convenient and flexible communication. In turn, this also has taken corporate industries to use *Internet Protocol Private Automatic Branch Exchange* (IP PABX) which based on package switch system. IP PABX is a technology that allows telephone connection between many internal users without using a local centre. IP PABX is a communication device which uses IP line that work by combining switches and routers.

In this final assignment, a new network of IP PABX will be designed for the office of Bank Indonesia in Jakarta. The design will comprise the aspect of capacity planning, network planning and configuration planning. To complete the design, compilation of users data, and mapping of the location has been taken.

The expected result from this new design is the far more optimum system based on better hardware capacity, line trunk, and bandwidth that is needed to meet the expanding requirement of Bank Indonesia. The IP PABX design require one central hardware of IP PABX in the capacity of 2609 extensions where 3 E1 are linked into PSTN and bandwidth of 7,793 Mbps is connected to the ISP