ABSTRACT

Increasing the number of subscribers of a mobile network operator not only have an impact on increasing the income of the operator, but also have an impact on the quality of the network. A decrease in the quality of the network is characterized by the increasing number of *call* failures. *Call* failure can be caused by several factors such as errors in telecommunications equipment customers, the location of customers who are outside the reach of the BTS and the network is being congested. One method of doing network optimization is to use a test drive.

In the case of 2G mobile network performance in a problem area *cover*age becomes important to note. Because of these performance parameters cellular network *cover*age can be seen from the area of *cover*age can be served well. The problem that occurs is when the standard parameter value *cover*age (Rx level) does not conform to the standards set in the amount of <-95 dbm, it will cause problems that can interfere with the *service* of the network in an area which is becoming an area of *cover*age of a BTS *site*.

By using a case study in the city of Bandung and focuses on the issue of 2G network *cover*age area for XYZ These activities will be done in the form of performance evaluation of the 2G network operator XYZ is problematic in terms of *cover*age area. 2G network performance evaluation activities carried out by, among others: implementation of test drives, reporting problems, problem analysis, optimization and implementation of optimization results. With the help of software TEMS and MapInfo software used as software for *drive test* and manufacture of reporting, while the optimization itself is an action to analyze the problem and also make a decision to fix the problems that occurred *cover*age. Optimization can be designed using software to simulate network Atoll.

With disusunya this thesis is expected to provide input to the Operator XYZ to optimize network *cover*age area.

Keywords: *Drive test*, Optimization, Network 2G, Rx level, TEMS, MAP Info