

ABSTRACT

Telecommunication development in Indonesia is very rapid. This makes Indonesia one of the countries with the highest number of telecommunications users. With the growth in the number of subscribers it must be balanced with the proper maintenance of base stations to support the course of telecommunications. A common issue is the BTS experience down, causing huge losses. One way to minimize the losses that are likely to be borne by the company is to improve the Reliability, Availability and Maintainability of the production system itself and the Cost of Unreliability to know how big the fees generated by the problem of Reliability, Availability and Maintainability.

Based on the results of research using RAM Analysis, obtained BTS opportunity to not fail within 72 hours, and values needed to improve the maintainability of the unit ranges between $t = 1$ hour up to $t = 12$ hours. Furthermore, the availability inherent value indicates that the availability of the machines on the system is very good, so it can produce MTTF and MTTR is optimal for system availability. And with the company's target for availability is 95%, it can be said that most of the inherent availability had passed from the given target. Then, based on calculations using the methods COUR Analysis, the results obtained COUR corrective biggest with the disorder disturbance Access Transmission Division with a value of \$ 1,328,250. While corrective COUR smallest is in disorder PLN blackout incidental only worth \$ 5,014.

Keywords: Reliability Availability Maintainability (RAM), Cost of Unreliability (COUR), Base Transceiver Station (BTS)