

## **ABSTRACT**

*PT. Telkomsel is one of corporations which provides telecommunication service. To need fulfilment and afford the best service for customer so the corporation was built the main infrastructure which is Base Tranceiver Station (BTS). This construction has a purpose to make a wider network area so it could make a good coverage to all Indonesian customers. Although the amount of BTS grows, but the condition of their equipments which support the BTS will have a damage session cause by continous usage and it also makes a lost revenue for the corporation. By this problem, the research uses the Reliability Centered Maintenance (RCM) to get the effective maintenance task and appropriate maintenance interval for BTS so it can works well to the function, have a good availability, and reduce the potency of inappropriate maintenance, and incorrect time of maintenance activity. Determining the critical subsystem which is clearly explain in the research will show the subsystem DTF transmission, Infratel transmission, Division transmission. Susbsytem was choosen because if it has down so the whole systems in BTS will follow.*

*Based on the data processing with the RCM Method to those components in transmission subsystem, give result for nine components which are Link GPON, Optic Fiber, OMUX, RL Simpul, E1, RL RTN, FMUX, Modul RMJ, Infratel Link. Those are including to schedule on condition and the other three components which are RL NEC, IDU, ODU. These are including to the Run to Failure.*

*Keywords: Base Tranceiver Station, Reliability Centered Maintenance, Maintenance Task, Maintenance Interval*