

## ABSTRACT

*Telkom Flexi is a cellular telecommunications service providers CDMA (Code Division Multiple Access) in Indonesia. The telecommunications company is currently using a third party or partner to handle BTS maintenance and Telkom Flexi was doing it. Determination of the number of repair channel performed by partners so that when it is done turn cooperation with other partners will be different then the number of channels that will be handling a repair damage to BTS Telkom Flexi. As for telecommunications, availability are concerned with a view to minimize the possibility of downtime. In this case, availability can be increased by determining what is the optimal number of channels in order to repair a balance between systems that were damaged by the number of channels available repair so as to maintain the good condition of fixed base stations. In addition to any equipment retirement age should also be considered because of aging equipment in line with the longer its equipment is diguakan and cause equipment will decrease its reliability. Equipment that decreased reliability will increase the failure rate so that equipment will often be damaged.*

*Solution to solve the above problems is the construction of asset maintenance application that can calculate how many repair channel that can be used as well as the optimal determination of the optimal retirement age. The method used is the method of Life Cycle Cost (LCC). LCC method provides a way to obtain the optimal total cost over the period of use of equipment with the sum of annual operating cost, annual cost shortage, population equivalent annual cost and annual repair costs. All costs are calculated and iterated on the retirement age and repair of different channels. Iteration will continue to get the total LCC output optimal retirement age and repair channel that is at a certain point.*

*From the above it can be concluded that this application is the application of asset maintenance LCC method that can be used by Part Optimization Coverage Area Unit Section Division Telkom Flexi Network Service Region III to calculate the value of LCC and the minimum retirement age and optimal channel repeir . So that part Optimization Coverage Area Unit Division of Telkom Flexi Network Service Region III can give suggestion to Telkom Flexi partners to determine the number of repair channels and more attention to the retirement age for any equipment that is used in the Telkom Flexi BTS.*

***Keywords: Maintenance Management, Optimization, Life Cycle Cost (LCC), BTS***