

ABSTRACT

Long Term Evolution (LTE) are fourth generation from wireless technology telecommunication as successor of 3G network with basis Internet Protocol (IP). This technology will fulfill user need on increased demand of packet data within recent years. Long Term Evolution(LTE) is technology with IP basis that support high data transfer rate compared to HSDP release 5, the problem are in high density populity many user the service they got not optimize. Sometimes it's because un fit in propagation model that cause capacity and coverage cell not optimized[9].

With purpose enhance LTE quality from capacity and coverage parameter in this research three model propagation is tested. The model are Ericsson 999, Erceg, and Cost 231. It would be chosen according to comparison between three model from it's simulation and counting. With seeing the capacity and coverage of each model. Is it enough to fulfill demand on East Jakarta.

Paramater in this final task are according ro standart telecommunication vendor in Indonesia. With focus plsnning on East Jakarta. Seen from counting and simulation result propagation model Cost 231 have the greatest result. With coverage 53,36 km² which is the best from the other two propagation model. With average SINR of Cost 231 around 1.09 db and RSRP -82.42 dbm with standart deviation 12,93. Cost 231 have the best signal result which is -65 dbm.

Keyword: Propagation model, Erceg, Cost 231, Ericsson 999, LTE, coverage, capacity,