

Abstract

Broadband technology is a technology that is growing very rapidly because of the advantages possessed, namely a broad coverage area, the speed of data transfer and receive the maximum, the frequency and the applications used and its implementation. One of the broadband technology being developed is a Long Term Evolution (LTE). In Indonesia, LTE was developed by PT Telkomsel as the leader of the mobile operator. PT Telkomsel to develop LTE because see growth in data usage rising rapidly compared with the voice. LTE technology can not be applied in Indonesia because of the government regulation and policies related to frequency of use has not been decided

Bandung is one of the big cities that have 3G Telkomsel user very large. Of historical data can be known from 3G Telkomsel and forecasting growth for Telkomsel 3G users over the next five years to be used as a basis to determine the potential user of LTE in the Bandung city.

From the the results obtained by research and forecasting calculations of potential users for five years, namely LTE 1.41.154 customer, the customer 1,357,723, 1,615,403 users, 1.921.980 users, 2,286,743 users. The devices are used to develop LTE MME, Gateway, Edge Router, LTE HSS and charging I&C dan eNodeB. After processing the data to the financial aspect is the feasibility of the obtained parameters of NPV Rp 403.010.186.196,97, IRR and Payback Period of 38,2% for 2.2 years. So it is known that LTE feasible to be implemented in Bandung. Furthermore found also sensitivity to the influential variables, the order of the most sensitive variable is the number of user, the price of service, the cost of investment and operational costs.

Keywords : *Business Feasibility Analysis, LTE, Sensitivity Analysis*