ABSTRAK

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Judul : Analisis Dimensioning Traffik Pada Jaringan 3G Menggunakan Metode Linier Least Square

Pelanggan telekomunikasi akan bertambah dari hari ke hari. Lonjakan jumlah pelanggan ini tentu menggembirakan pelaku industri telepon seluler. Namun penambahan jumlah pelanggan juga membawa konsekuensi serius bagi operator, yaitu kapasitas jaringan untuk menjamin konektifitas pelanggannya.

Dengan menggunakan data periode dari tahun 2008 dan metode *linier least square* untuk melakukan prediksi trafik di tahun 2010. Perhitungan dan prediksi dilakukan untuk mendapatkan komponen nilai *growth factor, high season factor,* trafik akhir 2010, prediksi pelanggan akhir 2010, program ekspansi jaringan 3G khususnya tentang kebutuhan *High Speed Downlink Packet Access* (HSDPA) , capex dan juga opex guna untuk keputusan analisa investasi.

Subscriber HSDPA di Bali diperkirakan meningkat sebesar 160% di tahun 2010, sedangkan *Tren Average of Concurrent User* Tahun 2010 diprediksikan akan mengalami kenaikan sekitar 206 %. Peningkatan jumlah pelanggan HSDPA diatasi dengan penambahan kapasitas jaringan baik disisi ekspansi maupun new collocated. Dengan IRR berkisar antara 30,353% dan NPV > 0, maka proyek ini layak untuk dijalankan.

Kata Kunci :
Trafik, Biaya, Capex, Opex,HSDPA, Tren.

ABSTRACT

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Title : Analisys of Traffic Dimensioning for 3G Network using Linier Least Square Method.

Telecommunications customers will increase from day by day. Jump in the number of subscribers is certainly encouraging mobile phone industry. However, the number of customer additions also bring serious consequences for the operator, the network capacity to ensure connectivity customers.

The data period collected from 2008 and linear method least square is used to carry out the prediction of the traffic for 2010. The calculation and the prediction was done to get the component thought growth factor, high season factor, also end of year traffic 2010, the prediction of the end subscriber 2010, the total expansion for 3G networks in particular High Speed Downlink Packet Access (HSDPA), capex and Opex furthermore those parameter will be used for investment analysis.

Subscriber HSDPA in Bali is expected to increase by 160% in the year 2010, while the trend of Concurrent Users Average year 2010 is predicted to increase approximately 206%. An increasing number of HSDPA overcome by the addition of either side of the network capacity expansion and new collocated. With IRR ranged between 30.353% and the NPV> 0, means this program is recommended to be done.

Main Key:
Traffic, Budget, Capex, Opex, HSDPA, Trend.