

ABSTRAK

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Judul : Analisa Efektifitas RAN Sharing pada Perusahaan Telekomunikasi
(Studi Kasus RAN Sharing XL Indosat)

Kebutuhan teknologi telekomunikasi seiring peningkatan jumlah pelanggan yang beralih dari *fixed line* ke *mobile*. Pembangunan infrastruktur jaringan tidak terlepas dari proses perencanaan dan anggaran biaya perusahaan yang harus dikeluarkan. Anggaran biaya pembangunan BTS merupakan biaya terbesar dari perusahaan telekomunikasi, sedangkan di sisi lain biaya operasional juga tidak sedikit. Simulasi perhitungan jumlah BTS LTE untuk memenuhi kebutuhan broadband di DKI Jakarta dan area penyangga seperti Bekasi, Depok, Tangerang Selatan dan Kota Tangerang menunjukkan bahwa kebutuhan *datarate* sangat mempengaruhi kebutuhan jumlah BTS pada area urban, sedangkan pada daerah suburban kebutuhan jumlah BTS dipengaruhi oleh kebutuhan coverage.

RAN sharing yang dilakukan oleh 2 operator akan menghemat biaya capex sebesar sekitar 36.73 % dan opex 44.71 %. Tetapi apabila dilakukan oleh 3 operator akan menghemat biaya capex sebesar sekitar 59.68 % dan opex 63.48 %. Sehingga semakin banyak operator yang melakukan RAN Sharing akan semakin menghemat anggaran biaya perusahaan.

Kata Kunci : BTS, CAPEX, OPEX, LTE, RAN Sharing.

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Judul : RAN Sharing Effectiveness Analysis in Telecommunications Company (Case Study RAN Sharing XL – Indosat)

Telecommunications technology needs as the increase in the number of customers who switch from fixed line to mobile. Network infrastructure development is inseparable from the process of planning and budget companies that must be planned. BTS construction cost budget of the largest costs of telecommunications companies, while on the other hand operating costs are also not less. Simulation calculation of the number of LTE base stations to meet the needs of broadband in Jakarta and buffer areas such as Bekasi , Depok , Tangerang and Tangerang City showed that the datarate needs affect the needs of the number of base stations in urban areas, while in suburban areas affected by the number of base stations about coverage needed.

RAN sharing is performed by two operators will save the cost of capital expenditure amounted to approximately 36.73 % and 44.71 % OPEX . But if it is done by 3 operators capex cost savings of approximately 59.68 % and 63.48 % OPEX. So that more and more operators who do RAN sharing will increasingly save budget companies.

Keywords : BTS, CAPEX, OPEX, LTE, RAN Sharing.

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