

# Pemodelan dan analisis implementasi mobility load balancing (MLB) (studi kasus di jaringan 3G PT. X di Jabodetabek) = Modelling and analysis of the mobility load balancing (MLB) implementation a case study in PT. X s 3G network in Jabodetabek region

Erny Apriany Sylwana, author

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20414260&lokasi=lokal>

---

## Abstrak

Pertumbuhan traffic yang terjadi menyebabkan Capital Expenditure (CAPEX) yang harus dikeluarkan oleh operator seluler setiap tahun semakin meningkat dan kompleksitas operasional jaringan semakin tinggi sehingga perlu peningkatan efisiensi jaringan salah satunya melalui sistem otomatisasi menggunakan Self-Organizing Network (SON). Adanya penerapan salah satu use case Self-Organizing Network (SON) yaitu Mobility Load Balancing (MLB) dapat meningkatkan efisiensi Capital Expenditure (CAPEX) yang harus dikeluarkan oleh operator seluler karena adanya proses load transfer antara cell secara otomatis sehingga ekspansi yang dikarenakan isu keterbatasan kapasitas cell dapat dikurangi jumlahnya. Penelitian tesis ini dilakukan untuk membuat pemodelan dan analisis implementasi dari Mobility Load Balancing (MLB) di jaringan 3G. Model ini dapat menentukan algoritma bekerjanya Mobility Load Balancing (MLB) dan nilai investasi maksimum bulanan yang layak dikeluarkan oleh operator seluler terkait implementasi Mobility Load Balancing (MLB).

.....The growing of cellular traffic nowadays causing the increment of Capital Expenditure (CAPEX) to be incurred by the mobile operators annually and the increment of network operation complexity so that the increment of network efficiency is needed through the automation system using Self-Organizing Network (SON). The implementation of one of Self-Organizing Network (SON) use case, namely Mobility Load Balancing (MLB), can improve the efficiency of Capital Expenditure (CAPEX) due to the transfer of load between the cells automatically so that the cell expansion number due to capacity issue can be reduced. This thesis research was carried out to make the modeling and analysis of the implementation of the Mobility Load Balancing (MLB) in the 3G network. This model can determine the algorithm of Mobility Load Balancing (MLB) and the monthly maximum eligible investments issued by mobile operators regarding the implementation of Mobility Load Balancing (MLB).