ABSTRAK

Pada proyek akhir ini akan membahas mengenai kapasitas dan kualitas jaringan pada *event GIIAS (Gaikindo Indonesia International Auto Show)* yang dilaksanakan di *ICE (Indonesia Exhibition Convention)* BSD. Kenaikan trafik diperkirakan akan terjadi pada saat *event* berlangsung, maka dilakukanlah optimasi agar kualitas jaringan tidak mengalami penurunan. *KPI* yang dibahas adalah *accessibility* dengan parameter berupa *RRC SR, E-RAB SR, dan CSSR*. Untuk mengetahui apakah kapasitas jaringan *existing* mampu melayani trafik pada saat *event* berlangsung, maka dibuatlah data prediksi yang berisi jumlah *subscriber*. Melalui data tersebut dapat diketahui bahwa *cell* yang meng-*cover main venue ICE BSD* mengalami *exceed capacity* untuk melayani trafik yang akan terjadi. *Event GIIAS (Gaikindo Indonesia International Auto Show)* dilaksanakan di dalam ruangan, untuk itu digunakanlah *E-NodeB mobile* sebagai solusinya. Pada saat *event* berlangsung beberapa *cell* dari *site* TNX244_ICEBSDIBS1 dan TNX244_ICEBSDIBS2 yang meng-*cover main venue ICE BSD* mengalami penurunan performansi dan memiliki nilai persentase *success rate* di bawah *threshold*. Karena adanya *E-NodeB mobile*, *site existing* terbantu dalam meng-*cover* jumlah pengguna sehingga nilai performansi dari *site existing* menjadi lebih baik.

Kata kunci : *E-NodeB, E-NodeB Mobile, LTE, KPI, Accessibility.*

ABSTRACT

In this final project will discuss the capacity and quality of the network at the GIIAS (Gaikindo Indonesia International Auto Show) event held at the ICE (Indonesia Exhibition Convention) BSD. The increase in traffic is expected to occur during the event, so optimization is done so that network quality does not decrease. KPIs discussed are accessibility with parameters such as RRC SR, E-RAB SR, and CSSR. To find out whether the capacity of an existing network is able to serve traffic during an event, predictive data is made containing the number of subscribers. Through these data it can be seen that the cell that covers the main venue of ICE BSD experiences an exceed capacity to serve the traffic that will occur. Event GIIAS (Gaikindo Indonesia International Auto Show) is held indoors, for this reason E-NodeB mobile is used as a solution. At the time the event took place several cells from the TNX244_ICEBSDIBS1 and TNX244_ICEBSDIBS2 sites that covered the ICE BSD venue had a decrease in performance and had a percentage success rate below the threshold. Because of the mobile E-NodeB, the existing site is helped in covering the number of users so that the value of the performance of the existing site is better.

Keywords : *E-NodeB, E-NodeB Mobile, LTE, KPI, Accessibility.*