

## ABSTRACT

3G network quality lies in the performance of a node B. This final task of analyzing one node B operator Excelcomindo in Bandung namely node B Cibeunying Kaler. Performance of a node B is affected by Quality of Service parameters of accessibility, retainability and integrity. This final task of analyzing the QoS parameters are derived from statistical data and field measurements with a drive test. QoS parameters are analyzed from a statistical observation of traffic parameters based on the KPI of the Radio Resource Control Success, PS R99 Accessibility and PS R99 Drop Rate, while the parameters derived from field measurements include RSCP and throughput.

Based on the statistical data which had been done, it could be said that the average value of PS R99 Drop Rate node B had high values, which were sector 1 the average value of 3,904%, sector 2 of 2,525 %, and sector 3 of 2,430%. Those values exceeded the KPI which was determined by PT. Excelcomindo, which was  $\leq 2\%$ . For the parameters of RRC Success and PS R99 Accessibility had been already appropriate for the targeted performance which was  $\geq 98\%$ .

Based on the results of Drive Test for the QoS parameters of throughput at the application download data obtained on the minimum throughput value of 3 sectors with an average of 108,325 kbps, while the maximum throughput of 2 sector average of 136,765 kbps. As for streaming video services have a minimum throughput value of the sector average of 3 of 189,459 kbps and the maximum throughput of the sector 2 is an average of 219,984 kbps. Throughput values obtained from the test drive is influenced RSCP values, types of services accessed, and many users. For RSCP value obtained from the test drives have an average of less good performance because it lies at the level of  $-100 \leq x < -86$  dBm, where the TEMS software represented by the color yellow. RSCP value is influenced by distance and multipath fading.

Key Word : Node B, QoS Parameters, Statistical Data, Drive Test.