

ABSTRACT

3G network quality in an area each time can be changed, it is due to some factor like any changes in network operating environment, the increases of user involve cell breathing or the service area area of a cell decline, and interference from the other site which is near the site that can causes call failure. The call failure here such as drop call, block call and handover failure, however in this last task only high drop call be analyzed which caused by poor performance of availability and RSSI. The importance of this improve for operator are maximize network efficiency, minimize card change by user, winning new customer and increase customer satisfaction.

To analyze the causes of call failure, it is very important to understand the definition of drop call, availability and RSSI. Drop call is condition where the ongoing talks disconnected before the talks finished (call drop after the talk channel was used). Availability is total time of system that available for user. RSSI is stands for Received Signal Strength Indicator as an index that shows signal strength received at antenna interface, can used to analyzed received signal from Node B.

In this last task, have been analyzed about 3G network performance from statistics data which derived from OMC. From statistics data that obtained, the value of drop rate above 2%. the drop rate parameter be compared with availability and RSSI parameter. Availability value which below 99% be analyzed the causes of this down of the availability value, and RSSI value which above -100 dBm also analyzed. so, we get the cause of availability value decrease at cell 341JK3G225664 that is high temperature on hardware that used, while the causes of high RSSI at cell JK3G22962 that is interference from the other site which near with XL site. Solution for availability issue is periodically controlling climate system at Node B to ensure the fan work optimally, while for RSSI issue is change antenna sectoral direction (sectoring). After improvement availability value that obtained is 100% and RSSI value is -90 dBm. so, drop rate value is below 2%.

Keywords : *drop call, drop rate, availability, RSSI*