ABSTRACT

Currently, mobile technology has reached the fourth generation, namely 4G. As mobile technology develops, users are increasingly using applications to help meet their daily needs. For example, shopping online, providing education online, and doing activities by online. From here, we can create new opportunities and challenges for application developers to continue to adapt and meet the needs of users in this digital area.

The purpose of this final project is to find out the problems that exist in the Sukabirus area. In addition, its also to know and maximize the quality of the cellular network while in the Sukabirus area so that users or people who are crossing or living in the area can use the application maximumly. The mtehods used in this study include literature study, discussion and consultation, problem analysis, and getting conclusions. To obtain data for this research, its necessary to collect data by the drive test method. The expected result of this study is to find out the signal quality in the Sukabirus area and if there is poor quality, improvements will be made which will later be implemented in real time online game with good signal quality. In this final project, research was carried out to measure and see the quality of the 4G LTE network in the Sukabirus area of Bandung. Data collection was carried out by the drivetest method. The data taken has several parameters, including RSRP, RSRQ, SINR, and Throughput.

From the drivetest, a number was obtained and analyzed with KPI values. The parameter values of RSRP at the level of -120 dBm ≤ RSRP < -102 dBm which dominate with the category of moderately poor, RSRQ at the level of -20 dB ≤ RSRQ < -14 dB with the bad category, SINR at the level of -20 dB ≤ SINR < 0 dB dominate with the bad category, and Throughput at the Throughput level < 324 kbps with the bad category. From the results of the analysis, improvements need to be made.

Keywords: analysis, drivetest, implementation, QoS.