

ABSTRACT

Cellular communication system is a communication technology that is now growing rapidly this is shown by the increasing needs of customers will be multimedia content. And so we need a service that could accommodate high-speed data services. Therefore, some operators to implement a new technology is CDMA-1X (Code Division Multiple Access) with the increase in special access broadband EVDO (Evolution-Data Optimized).

In this research, network quality evaluation on the RF Performance to four (4) BTS selected areas of the report data records in the BSC-Dayehkolot Palasari (BDG_01N062), Karasak (BDG_01N033), Cijagra (BDG_01N006), and Cipagalo (BDG_01N073). To four base stations are experiencing problems which have a value (%) for three (3) RF quality parameters namely Palasari [COSR (92 216), RF Failure Rate (7781), Radio CDR (8571)]; Karasak [COSR (92 763), RF Failure Rate (7235), Radio CDR (5252)]; Cijagra [COSR (91 458), RF Failure Rate (8540), Radio CDR (6738)]; Cipagalo [COSR (93 374), RF Failure Rate (7604), CDR Radio (5228)]. Drive test and evaluation of quality performance data services for operators EVDO (Smart Telecom) had been done in the area south of Bandung in cooperation with Smart Telecom, part of the internal party RF Planning and Optimization.

From the evaluation of service quality following a drive test data for the general parameters of the standard KPIs (Key Performance Indicators) in the form [C / I (dB); Ec / Io (dB); DRC Index (Class); PER; Rx Power (dBm); Throughput (kbps); Best PN] for BTS area that has the lowest value that is Cipagalo for [C / I (4:06); Ec / Io (-3.62); DRC Index (4:33), PER (5.92); Rx Power (-73.59); Throughput (164.78); Best PN (0:46)]. So that one (1) BTS Cipagalo (BDG_01N073) is problematic for all categories including general parameters KPI. The problems that occurred due to the factor the less transmission area covers an area around and there is overlap with neighboring base stations. Therefore recommended improvement areas is to change the transmit antenna azimuth orientation or tilting the antenna at the BTS in these problem areas.

Keywords: drive test, KPI, CDMA, EVDO, BTS, RF Planning and Optimization