ABSTRACT

Abstract – **A long with development of internet and mobile communcation, data technology with high bite rate are still developed. One of technology that can support cellular data communication growth is CDMA20001x EVDO system**

CDMA20001XEVDO offering wireless internet for data and internet access optimalization with data rate and wide capacity. This technology also gives solution for mobile wireless internet with high performance. CDMA20001XEVDO can reach peak of rate date until 2.45 Mbps for forward link only using 1.25 Mhz width of spectrum.

On this final project has been discussed about CDMA 20001XEVDO network implementation study at Smart Telecom, PT Jakarta. Discussion of this final project include traffic forecasting, coverage, capacity, network quality, and also software as tool to make easy calculation using GUI on matlab

Based on customer forecasting result until 2012 Cilandak Urban area is 15.129 and 13.090 customers for Jagakarsa Sub Urban area, so with offered traffic of 332 (kbps/sel) needed 18 BTS for Urban area and 16 BTS for Sub Urban area each of radius cell is 0,36 km and 0,439. Based on actual implementation result for Urban area (Cilandak) is implemented 7 BTS (7 CHM2) and 8 BTS (8CHM2) for Sub Urban area (Jagakarsa). This different of both because the implmentation done step by step for every years.

Keywords: CDMA 200-1x EV DO, capacity, *coverag*, quality.