ABSTRACT

WCDMA (Wide-band Code Division Multiple Access) technology is one of technology that take many users to access information in same time and frekuensi. W-CDMA (is known as UMTS) is evolution third generation(3G) from mobile network that have main characteristics, they are offer high speed (*high-speed*) up to 2 Mbps, used for all mobile application, support about data transmission from packed-switched and circuit switched, to broadband and offer high spectrum efficient.

Every call that offered come in there is either waiting till certain time limit, or facing blocking. High or low call fail showed one by congestion. At WCDMA there is not frequency division, cause every cell have same frequency but WCDMA have RF (Radio Frekuensi) environment different from GSM(Global System for Mobile Communications) technology like difference of frequency, using canal frequency, access method, antenna design. These different have consequence different action in facing network performance especially congestion and blocking call.

This Final Project contain about performance analysis of congestion on WCDMA network that is in UTRAN at UE and Node B. Basis of data is analyzed like Prx Noise, power control, cell availability, and simulation of drive test will show there is a congestion. Using a frequency canal together at WCDMA caused simple plan of frequency beside we need it for keep the noise on special stage. The result of analyze and statistic could be optimized in 3G to reduce congestion like how to software setting (parameter) and hardware setting.