

## ABSTRACT

The evolution of information communication technology and the rising of bandwidth that can be accessed by MS (mobile station) produce many interesting applications. The goal of third generation (3G) mobile communication system is integrating many communication and information services such as high rate data communication, fully video and multimedia access and traffic like voice service. Universal Mobile Telecommunication System (UMTS) is an evolution of GSM supporting third generation performance. UMTS is using Wideband Code Division Multiple Access (WCDMA) technology.

In implementation, need to do the network planning that should be estimated. In this final project, the WCDMA network planning, microwave link planning for the core network and business aspect modeling will be done for Bandung city study case.

The steps are BTS planning, microwave planning, the infrastructure and the business side of this network.

The expected result of this final project is got a optimal WCDMA radio network planning.

Keywords: WCDMA Network Dimensioning, Microwave Link, Business Modeling, Cellular Communication System

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