ABSTRACT

The development of cellular technology raises a variety of new needs in terms of quality of service. Provides data communication services that have good quality becomes a challenge for telecom operators, with increasing consumer demand for services data communicationsHSPA + (High Speed Packet Access Plus) is also known as HSPA Evolution or Evolved HSPA. HSPA + is the standard 3GPP Release 7 and Release 8 and is an upgrade of the existing HSPA network. HSPA + will apply some techniques developed for LTE (Long Term Evolution) which allows the operator to extend the life of HSPA on their network. HSPA + will enhance the ability of mobile broadband with data rates up to 21 Mbps with low latency and delay. This capability is obtained from the addition of technology HOM (High Order Modulation) and DTX / DRX (discontinuous Transmission and Reception) on the WCDMA platform.

This final task is about the analysis of migration planning from UMTS to HSPA + networks. The discussion is focused on radio network planning that are capacity and coverage planning, transmission link planning and required cost analysis to implement migration network. HSPA + network planning process takes into account the condition of the existing UMTS network that is used to estimate HSPA + service.

Based on the results of capacity and coverage planning, then obtained the total number of sites needed to provide HSPA + technology services in the city of Bandung as many as 50 pieces, 40 sites for urban site with a radius of 1.023 km and 10 sites for suburbs with 1.5898 km radius of site. In the process of implementation of HSPA + technology in the city of Bandung done gradually. Phase of network implementation is done in 5 stages over five years. It is based on traffic requirements vary for each area. Thus, by the network implementation is not done in the same time for each area in Bandung

Keyword : Network migration, Network planning, HSPA+