

ABSTRACT

The emerge of 3G UMTS gives mobile wireless services with many interesting features. It will be complete with high speed access. HSDPA technology is the most suitable partner for 3G to release it. HSDPA is introduced for UMTS release 5 architecture to upgrade downlink performance.

In this final exam, will be explained about planning of HSDPA include coverage, traffic forecasting, system capacity, with planning tools to make easy the calculations of HSDPA traffic and link budget. To analyse the result of planning, writer take area case study to get real data of the use of services on the current network lately.

Result of HSDPA planning in Bandung urban area shows that either downlink and uplink can be covered well by existing UMTS node B. From traffic forecasting and capacity dimensioning shows that the number of HSDPA sites need to serve customers are 18 sites on year-0 (2007) and grow until 36 sites on year-5 (2012).

Keywords : cellular network, 3G UMTS, HSDPA