

## ABSTRACT

High Speed Downlink Packet Access (HSDPA) Technology be a newest technology in mobile telecommunications system released by 3GPP Release 5 and it is 3,5 generation technology (3,5G). HSDPA has service to base on packet data in WCDMA downlink with data rate up to 14,4 Mbps and bandwidth 5 MHz at WCDMA downlink. For streaming service, where it is more data service at downlink direction than uplink, or equally user more download than upload.

Quality of HSDPA network hardly influenced by quality of radiowave propagation transmitted by node B. A node B performance is influenced by parameters throughput and receive signal level. This parameters determine quality of service of the service. Quality of service determined by availability ( availability), access ability ( accessibility), handover ability ( retainability), and Integrity ( quality of service equity).

Measurement is done in area IT Telkom, where network performance HSDPA especially for operator XL in this area unable to adequate. This thing is marked with at least received signal level via handset, especially in building. Based on result of measurement, proven that value RSCP ( Received Signal Code Power) average is - 103,36 dBm indicating bad quality level. Differs from simulation result obtaining average 80,27 dBm and indicates good quality level. While for throughput measurement, simulation result and measurement shows that is different far enough. And both measurement doesn't show good throughput quality that is to 384 kbps. This thing indicates that HSDPA network quality of operator XL in area IT Telkom need to be optimimalized, so that HSDPA data service can be accessed comfortably by cutomer.