ABSTRACT

Femtocell is a micro-transmitter technology that uses low power levels, using the official frequency as used in cellular networks, backhaul networks connected to the Internet. Femtocell has 3 access methode, which is open access, closed acces, and hybrid access. Femtocell is usually installed in homes, buildings, and offices.

Femtocell has posted in office them selves as influenced by the background data on the corporate network. Communication of data contained in the office consists of a data communications data communications intranet and internet.

In this thesis analyzed HSDPA femtocell QoS for multimedia services on enterprise data networks Research and Development Center PT Telekomunikasi Bandung using the method of closed access. In this implementation, testing of HSDPA femtocell performance against the existing background traffic on the company. Tests carried out by using the Network Monitoring System (NMS), 1xChariot, Movi Cisco Telepresence, and PRTG. Tests involving various types of multimedia services with several different scenarios.

The test results showed that performance in the company's femtocell for Reasearch and Development Center PT Telekomunikasi Bandung average satisfactory (according to the reference standard [1]. Bandwidth multimedia services on the femtocell itself is generally very small. For multimedia services (FTP, G.711u Voice, Video Confenrence) with background traffic intranet voice services have an average packet loss below 3% (meets the reference standard [1]), and has an average jitter below 40 ms (meet the reference standard [1]). For multimedia services (video conference) with background loading to 75% of the bandwidth of 9 Mbps has pakcet average packet loss above 3% (does not meet the reference standard [1], but has an average of 40 ms jitter (meet the reference standard [1]).

Keyword : femtocell HSDPA, intranet, internet