ABSTRACT

Nowadays Peer-to-Peer Network and mobile device technology are growing fast. P2P with file sharing application and mobile device with network connectivity such as : Bluetooth, WiFi, GPRS, EDGE, UMTS, and HSDPA, processing capabilities, memory capacity, camera and J2ME technology.

With those features, mobile device possibly make some contents like picture, ringtone, and video. JXTA (Juxtapose) is designed as P2P network platform. With JXTA and J2ME, mobile device can exchange content with each other. This is the beginning of JXME, JXTA for J2ME.

In this Final Project, file sharing application is built on JXME System-based mobile device. Operation's Latency, Round-Trip Time and Pipe Message and Data Throughput tests are done to get the JXME performance.

The results of Operation's Latency test on GPRS network, needs around 10 seconds to complete connect to relay operation, and for create pipe, listen pipe and close pipe operations each of them needs around 5 seconds. The results of Round-Trip Time test on GPRS network, needs around 10 seconds for message to get back to sender. And the results of Pipe Message and Data Throughput test on GPRS network, the capacity of JXME Proxy Service buffer is 322,6 KB.

Keyword : P2P, JXTA, J2ME, JXME Performance.