## **ABSTRACT**

Technological trend is growing rapidly from year to year, the most obvious we can see is the inclusion of mobile phones with various features of the technology. However, very surprisingly, the various capabilities provided by each phone based survey results are not up to 10% used by users.

Big question arises, whether the users do not want to read the manual to understand the various features provided or provided the technological capability is actually faster than consumers' ability to absorb them. From R & Compass poll in 2007, seen clearly that the features on mobile technologies such as MMS, download the ringtone or wallpaper, the checking account balance of savings, SMS news service, internet connection, or send and receive email very little utilized by mobile users.

In this thesis the author has implemented a system that runs on a standard CPU with Pentium IV processor 1.8 GHz with CentOS operating system. Based on this analysis the overall system based mail server with zimbra mobile push email service has been running well on tests using the Sony Ericsson W910i mobile devices with time - average to push an email one to two minutes. This system implements open source tools and software and most importantly, there are features - features found on a cell phone as a GPRS protocol and the ActiveSync protocol which can be exploited singkronisasi well. The system has also been tested will allow a user to receive email information easily such as receiving regular sms but have to be complicated to configure, and with a relatively low cost.