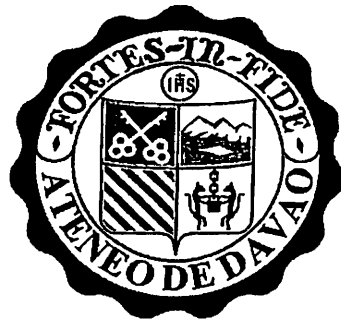


**IMPLEMENTING FILE SHARING SERVICES IN WLAN
EQUIPPED MOBILE PHONES**



By

CHEW, JON JOSEPH G.

PUSTA, MELVIN RAY E.

**SCHOOL OF ARTS AND SCIENCES
ATENEODE DAVAO UNIVERSITY**

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**IMPLEMENTING FILE SHARING SERVICES IN WLAN EQUIPPED MOBILE
PHONES**

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By

CHEW, JON JOSEPH G.

PUSTA, MELVIN RAY E.

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ABSTRACT

The growth of Wireless Networking has emphasized the need for flexible connection. One good example to address the need was equipping Mobile Phones with Wireless Local Area Network (WLAN). Access to the Internet became mobile with WLAN. However, the use of the other TCP/IP services such as file sharing/transfer was not yet developed. This paper discusses how the proponents came up with the concept/idea to develop file sharing services to WLAN equipped Mobile Phones specifically the concept of File Transfer Protocol. This paper discusses how the proponents develop the application that uses the File Transfer Protocol and the result of the study.

Keywords:

WLAN, FTP, TCP/IP

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

The Nokia Series 60 Platform is a software platform for phones with Symbian OS and advanced data capabilities. This platform includes features like user interface, telephony and personal information management applications, support for downloading new content based on Symbian, Java and XHTML technologies, support for messaging via SMS, MMS and e-mail, support for connections via GSM, GPRS, IrDA and Bluetooth, and synchronizing via SyncML.

Recently, Nokia equipped their Series 60 Platform smart phones with Wireless Local Area Network (WLAN) capability which brings new advantage on their already featured phone. This means users can now access the Internet through their mobile phone using Wireless Fidelity (Wi-Fi) specifically the 802.11b/g standard. With this new mobile phone capability and with Wi-Fi hotspot becoming available for free nowadays, access to information have become more mobile, faster and flexible i.e. browse your favorite websites, write blogs, check your emails anywhere provided that Wi-Fi hot spot is available.

However file sharing in Series 60 Platform smart phones are not as simple, seamless and well developed as file sharing in desktop PCs and laptops. Most modern Operating Systems like Windows, Linux, and UNIX uses protocols to do file sharing. File Transfer Protocol (FTP) and Server

Message Block (SMB) to name few of these protocols. Thus, it is easier for these Operating Systems to share files with the same or with another Operating System. Hence, this led the proponents to envision a file sharing service in mobile phones.

1.2 Technology Application Context

The proponents created an application/software for a WLAN equipped mobile phone that offers file sharing capability over Wireless Fidelity (Wi-Fi). This application was guided of by the concept of File Transfer Protocol (FTP). FTP is one of popular file sharing services used by modern Operating System (Windows, Linux, and UNIX) for file sharing and accessing.

This application responds to undeveloped file sharing capability on all Nokia WLAN equipped smart phones. Through this application users may able to get files from a pc which is set-up with a FTP server. Access the files of your shared documents over the internet just like a PC with a FTP client using the phone's equipped WLAN. The developed application/software offers an alternative way of getting files from your PC.

1.3 Objectives of the Study

The major objective of the study was:

- To create an application for WLAN equipped mobile phones that allows file sharing.

The following was the study's minor objectives:

- To access the FTP Server files over a wireless local area network (WLAN).
- To do basic file sharing (i.e. downloading and uploading of files).

1.4 Significance of the Study

The application that the proponents developed will be a big help not only for the proponents but also for the users who will use the application. This application offers mobility because a user can already get files from the PC to the phone anywhere. Users just have to connect to a FTP server of your PC provided that the FTP Server is up and running.

This study enhanced the phone's capability to use WLAN technology because with this application, Mobile phone with equipped WLAN will not be limited to browsing the internet but can be use for file sharing also.

1.5 Scope and Limitations of the Study

The technical output was a working series 60 (s60) application written in Python language. The application is available for WLAN equipped Nokia Series 60 platform mobile phone only.

1.6 Glossary/Definition of Terms

Server Message Block (SMB) is an application-level network protocol mainly applied to shared access to files, printers, serial ports, and miscellaneous communications between nodes on a network

Common Internet File System (CIFS) is standard remote file-system access protocol for use over the Internet, enabling groups of users to work together and share documents across the Internet or within corporate intranets.

S60 Platform (formerly Series 60 User Interface) is a platform for mobile phones that uses Symbian OS. S60 supports application development in Java MIDP, C++, and Python language.

Wireless Local Area Network (WLAN) is a type of local-area network that uses high-frequency radio waves rather than wires to communicate between nodes.

File Transfer Protocol (FTP) is a network protocol used to transfer data from one computer to another through a network, such as over the Internet.

Python is a dynamic object-oriented programming language that can be used for many kinds of software development. It offers strong support for integration with other languages and tools, comes with extensive standard libraries, and can be learned in a few days.