Remote File Searching and Retrieving through SMS

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***Abstract*—There are many ways to search a file on the machine. The common fact in all the searching technique is that they all need human interaction with the machine. In this paper, we are presenting a new technique to search a file on a machine without human interaction. The aim of the project is to search a file on a remote machine without human interaction. The user just has to send a simple SMS (Short Message Service) in particular format which contains the specific information about the file to the remote machine. The file which user want is receives through a mail. The work of searching and emailing is done by a desktop application which installs on the remote machine.**

Keywords— SMS; GSM Modem; Parser

I. INTRODUCTION

This paper proposes a technique to search a file on a remote machine without human interaction. There are many techniques to search file on the machine, which required the active interaction of the human with machine. The aim to make search and retrieval of file fully automated. To search a file on remote machine user need to send an SMS in particular format. SMS contains the file name, file path (optional) and e-mail id. There is a desktop application which installs on the remote machine. The desktop application does the work of searching and e-mailing. SMS send by the user is received by the desktop application. As soon as the SMS is received, the application first checks the authenticity of the SMS. Only authorized user allow accessing the remote machine. The process of authentication is done on the mobile number through user send the SMS. If the mobile number is not authorized, the application sends an acknowledgement "Invalid User'. After authentication application parse the SMS and separates contain.

After parsing application extract the name of the file and the e-mail id from the SMS. The application is directly linked to a database which contains all the user files. Every file in the database has unique index number and arranged in alphabetical order. An application searches the file in the database according to the name of the file. The aim of a direct link to the database of application is to make searching more efficient and less time consuming. If the file is found than application mail that file to user's e-mail id. If the file is not found then the application sends an acknowledgement "File not found". By this, we can search any type of file like .txt, .doc, mp3, pdf etc.

II. BASIC CONCEPT

The basic concept is to search a file on a remote machine without human interaction just by sending a simple SMS.The User does not need to have extra technical knowledge. The user just needs to send SMS in particular format. After receiving SMS application searches the file on the remote machine and send to the user as a mail. The application searches the file in database and mail it to the user if found. Application required an active internet connection to mail the file which user want. The application performs the first authentication and then start the process of searching. The user can search and retrieve multiple files at same time.

III. LITERATURE REVIEW

Remote File Retrieving using SMS by Piyush Sawant[1] who received the certificate from IIT Mumbai in return of working as a College Representative at Entrepreneurship Development Cell (E-Cell), he published a paper at IIT Mumbai Remote File Retrieving using SMS.

The Global System for Mobile Communications Short Message Service IEEE paper published by S. Cvetkovic P. Griffiths [2] on 23 June 2000. IEEE Personal Communications Vol.7 Issue 3 p.p. 15-23 June 2000.

Kanika Shah Mohammed Abdul Qadeer Utkarsh Goel [3] has developed a paper "The Personal SMS Gateway" in 2008.

Starsky H.Y. Wong Songwu [4] "Analysis of the Reliability of nationwide short message services" UCLA Computer Science Department Los Angeles.

A survey context-aware mobile computing research. Technical report, Technical- Report TR2000-381. [5]

IV. SYSTEM OVERVIEW

The proposed system has following components:

1. SMS
2. GSM Modem
3. SMS Reader
4. SMS Parser
5. File Search module
6. Email Module

A. SMS

Short Message Service (SMS) is a text messaging service. SMS service is provided by the network operators. It uses standardized communications protocols to allow mobile phone devices to exchange short text messages.

B. GSM Modem

GSM modem is a device which accepts SIM card and operated by the mobile network operator. GSM modem has the ability to send and receive SMSs. A GSM modem connected to the remote machine by serial port, USB or Bluetooth. GSM modem allows remote machine to communicate with the user over a mobile network.

C. SMS Reader

The SMS send by the user is received at GSM modem. After receiving SMS GSM modem pass that SMS to the SMS reader. SMS reader performs the process of authentication. In authentication process SMS reader checks whether the mobile number through which the SMS is sent is authorized or not. If the user is not authorized then it sends an acknowledgement “Invalid user”.

D. SMS Parser

SMS parser is used to separate the components of the SMS received at GSM modem. Components of the SMS are here is the file name, file path, sender's e-mail id etc. SMS parser generates a parse tree or an abstract syntax tree for given input here is SMS. The example is shown in Fig.2.

E. File Search Modul

The name of the file extracted by SMS parser is now passed to file search module. File search module is directly linked to a database of the remote machine. Database of the remote machine contains all user file which is inserted by the user. Every file in the database has a unique index number and name. This will help to reduce redundancy in the database. File search module searches the file that mentions in the SMS. If the file is not found in the database then it sends an acknowledgement “File not found”. If the file is found then it gives the file to the email module. The user can search multiple files at the same time.

F. Email Module

Email module does the work of sending the required file as a mail to the user. Email module gets the email id from SMS parser and the file from file search module. Email module attached that file to the user email id and send to the user.

V. CONCLUSION

In this paper, a desktop application is implemented which searches and retrieve file just sending a simple SMS. The user can search and retrieve any type of the file and get that file as mail. The requirement of this project is that the application must be installed on the remote machine and it must be connected to the active internet. The user can search multiple files at same time and get that files as a mail.

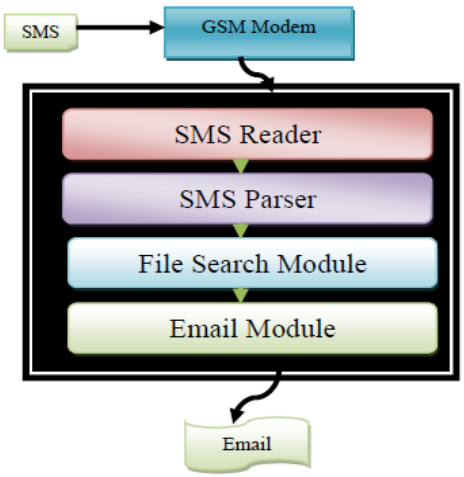

Fig. 1. System Architecture

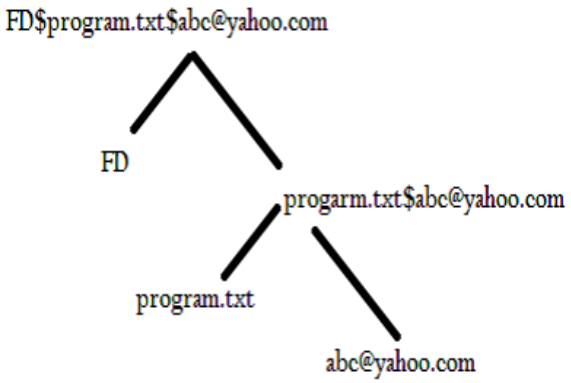

Fig. 2. SMS Parser

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