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EMAILING FILE THROUGH SMS

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ABSTRACT

If mobile phones are the lifeline of communication then SMS is its heartbeat. SMS (Short Message Service) in very short time span became the most popular way of exchanging information. This project proposes a method that uses SMS as a medium to retrieve file residing on the remote client machine through email. The application is to be installed on the client machine with active internet connection. Intended user will send a SMS in specific format received by the mobile gateway connected to client machine which in turn activates the application and triggers the search process. Further parsing the received SMS, the file is searched on Remote machine and after locating it is mailed to the user.

Keywords: Client Machine, Mobile Gateway.

1. INTRODUCTION

The advent of mobile phones gave the world of communication a new meaning. Wireless communication forms the base of telephonic communication. New technologies related to mobile phones started surfacing in market. Development of PDA's was a boost given to this technology. Earlier PDA's like calendar, calculators, memos, etc. were parts of feature phones.[1] Integrating internet into mobile phones gave encouragement for the development of variety of PDAs. New OS's like Android, Symbian became popular and smart phones emerged. Sending and receiving emails, surfing net,downloading and uploading media was now possible to do through mobile phones.

SMS though popular from early era of mobile phones, smart phones attached additional features to simple SMS. SMS was readily adopted by many sectors to provide facilities like mobile banking, e- ticketing, bill payments, railway PNR status, etc[2].Mass acceptance of SMS to avail these services brought a revolution in above sectors and proved to be a major success factor.

2. EXISTING SYSTEM

In today's dynamic work environment, functioning 24*7 and is largely dependent on data in its various forms like text, audio, video, images, etc. The availability of data is the key feature for smooth running of businesses which is one of the factor leading to pressures on employees to keep data intact. Files been scattered over multiple machines and in this constant run suppose if a person forgets a file on his home desktop and needs it urgently at his workplace and there is no computer educated person at his home to email this file. Going back home to take the file is also not a feasible option. Few Android apps allow you to receive remote files on mobile phones. But these apps are limited to smart phones and need internet connection on both sides. One of the most popular software used now a day to access files from remote machine is TeamViewer.

TeamViewer: TeamViewer developed by TeamViewer GmbH, is a software package for remote control, desktop sharing, web conferencing and file transfer between computers. Popularly used to access the files on remote machine.

A. Disadvantages of existing system:

- The software should be running on both local and remote sides in order to access the files.
- To establish connection between a local and remote client, TeamViewer generated ID and password of either clients are required.
- Active internet connection is required on both sides.
- Accessing the remote files and then mailing it to the other user is a time consuming process
- Teamviewer needs administrator permissions to startup. Therefore not feasible to be used in office where employees don't excise such rights.
- In many offices it is prohibited to use such software applications.

3. PROPOSED SYSTEM

The solution to the problem is our proposed application. EFS application facilitates user to obtain a file located on home desktop through email by sending SMS. The SMS format will include the name of the file to be search, the file location (optional), user mail address to where the file if found has to be mailed. The application on receiving this SMS will search the file on remote machine and on finding it will attach it to the email and mail it. This file search on

remote machine will1st be conducted in 'Recent Files' folder as it usually recently accessed files that we need. If the file is not found here, then the application will search rest of the pc for the file. The user can also specify a direct path of the file in the SMS. Apart from mailing the searched file the application can also upload and download files from the FTP server.

A. Advantages compared to existing system:

- The application has to be installed only onthe client side.
- No admin access required due to clientside installation. User has to just send a SMS.
- Active internet connection is required onlyon the client side for the purpose of emailing file.
- The proposed system provides the facility of sending the searched file through Emailautomatically triggered only by SMS.
- The proposed system provides upload and download of files from/to FTP server.
- The entire search process and other featureof FTP are easily accessed by SMS with nominal charges from service provider.

4. SYSTEM ARCHITECTURE

Following two steps have to be performed by the user only one time after installing the EFS appln:

1. Registration of mobile no. :

- Start the EFS application.
- Go to Add mobile no. option and give the no. fromwhich one desires to use EFS.
- Press Send Code button. A random code is send to your no.
- Put this code in the next verification screen and your mobile no. is successfully registered withthe EFS.
- The user can also later edit or delete mobile no. details.

Enter FTP details.

- Start the EFS application.
- Go to FTP Details form.
- Fill the details of host name, user name, and password.
- Save the details.

User is now ready to use EFS application fromanywhere in the world. Now the user has to only send the SMS in any of the following Formats to avail the services of EFS:

SF: "SF#<FILE_NAME>#<FILE_LOCATION>#<EX

ACT_SEARCH(Y/N)>#<EMAIL_ID(Separated byComma)>";

FI: "FI#<FILE_NAME>#<FILE_LOCATION>";

FU: FU#<FILE_NAME>#<FILE_LOCATION>#<EXACT_SEARCH (Y/N)>#<FTP_SERVER_NAME>";

FD: "FD#<FILE_NAME>#<EMAIL_ID(Separated by Comma)>#<EXACT_SEARCH (Y/N)>#<FTP_SERVER_NAME>";

FL: "FL#<FTP_SERVER_NAME>#<EMAIL_ID(Sepa

rated by Comma)>";

The request in any of the above is processed by theEFS application and result is sent to the user.

❖ **Working:**

1. User sends SMS in a required format to GSMGateway
2. SMS Gateway then forwards SMS to Appln
3. Appln receives a SMS, parses it and splits the SMS into components
4. Depending on the request, appln either communicates with Mail Server, FTP Server& respond back to user thru SMS
   - If request is related to File upload,Download or List then the appln connect with FTP server and execute the request
   - FTP Server gives the acknowledgement of the request
   - If request is related to Email File then the appln connect with Mail server and execute the request

- Mail Server gives the acknowledgement of the request

5. Appln sends a response back to user through SMS
6. SMS Gateway then forwards SMS to User.

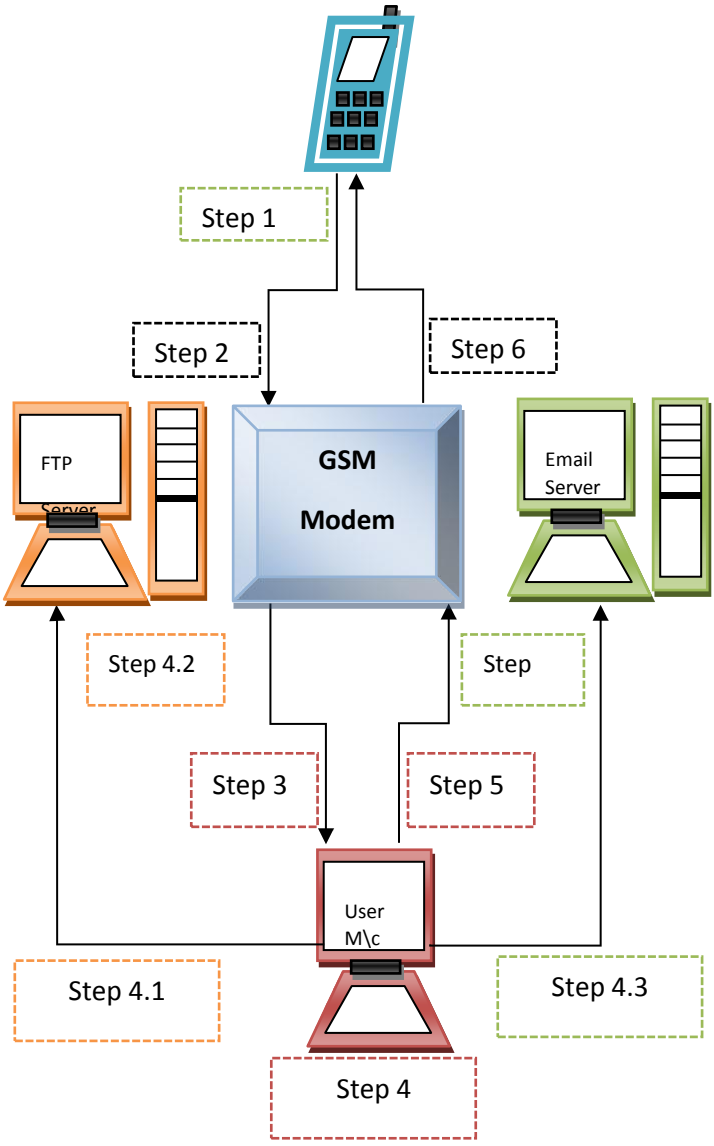

Fig.1: System Architecture

The above diagram illustrates the System Architecture for EFS. It consists of following aspects:

A. **SMS :**

- The user will send a SMS in specificformat to EFS.
- After the request has been processed theacknowledgement is send back to user.
- File Info request results are also send touser using SMS.

B. **GSM Modem:**

- The client PC is to be connected to the GSM modem which acts as a mobile gateway.
- This modem is responsible to receive the SMS send by the user.
- SMS is further forwarded to the EFS by this modem.

C. **User Machine:**

- The user machine is where the EFSapplication is installed.
- After receiving the SMS, it is read, parsed and processed accordingly.
- Processing depends upon the type of the request send by the user viz. FTP, FileSearch, File Info.

- **File Info**- This module will give the file related information like size, creation date, modified date and last accessed date.
- **File Search**- This module locates the file specified by the user in SMS in the Remote pc and forwards it to Email Server.

D. **FTP Server: Gives 3 options**

- **File Upload**- This module will actually search the file in the user remote machine anduploads the file to the FTP server mentioned in the SMS.
- **File Download**- This module will actually search the file on the FTP server and downloads the file to the user machine and mail the file.
- **File List**-Provides a list of files present on users FTP Server.

E. **Mail Server:**

This Server attaches the file searched ordownloaded by FTP server to mail and sends it to the email ID specified in the SMS.

5. TECHNOLOGY AND CONCEPTS

A. **AT Commands:**

What are AT Commands?

- AT Commands are Attention Commands.
- AT Commands are used for sending and receiving SMS through phones that supports them.
- AT Commands are used for application thatrequires sending and receiving SMS.

Purpose of AT Commands in proposedSystem:

- The purpose of using AT Commands inRemote file search using SMS is to receive and send SMS from/to the mobile which is used to trigger the application.
- AT Commands are basically used to operate the mobile phone which is acting asa modem between the remote PC and the Client phone.
- This mobile phone /modem need to read and send SMS generated for or by the application.

Different AT commands used in this project :

- **AT** - This command is used to check communication between themodule and the computer.
- **+CMGF** - This command is used to set the SMS mode.
- **+CMGW** - This command is used to store message in the SIM.
- **+CMGS** - This command is used to send a SMS message to a phone number.
- **+CMGL**- This command is used to generate msg list.
- **+CNMI**- This command gives new message indication.
- **+CPMS**- This command is used to select preferred message storage.

B. **Net Framework:**

What is .Net Framework?

- .Net Framework is a software framework developed by Microsoft that's runsprimarily on Microsoft Windows.
- It contains built in libraries that facilitate programming in any language supported by it.

Purpose for using .Net framework:

- Visual studio which is used in thisproject supports .Net framework.
- .Net Framework supports C# which isthe primary language in this project.
- C# facilitates partial coding.

6. CONCLUSION

Thus EFS Application will facilitate the user toobtain remote files anytime & anywhere through Email by using SMS which is the most effective medium of communication today.

7. REFERENCES

[1] IEEE paper:-SMS-Based Web Search for Low-end Mobile Devices.(Author-Jay, Chen, Lakshmi Subramanian , Eric Brewer).

[2] 'Remote Control and overall administration of Computer Networking using SMS' by Sarram, M.; Ghasemzadeh, M.; Aghaei, V. Information and Communication Technologies: From Theory to Applications,

2008. ICTTA 2008. 3rd InternationalConference on Digital Object Identifier: 10.1109/ICTTA.2008.4530178 Publication Year: 2008,Page(s): 1- 5.

[3] Ming Xue; Changjun Zhu, Circuits, Communication and Systems, 2009. PACCS '09, Pacific-Asia Conference on Digital ObjectIdentifier 10.1109/PACCS.2009.89. Publication year 2009.

[4] Redl, Siegmund M., Weber, Matthias K., Oliphant, Malcon W. – An Introduction to GSM – Artech House Publishers, 1995.

[5] Wi-Fi Alliance, http://www.weca.net/OpenSection/index.asp,May 2003.

[6] Bates, Regis J. – GPRS General Packet Radio Service – 5cGraw Hill, 2001.

[7] B. Ghribi and L. Logrippo, "Understanding GPRS: the GSM packet radio service," Computer Networks, vol. 34, pp. 763-779, 2000.

[8] Subramanian, Mani - Network Management:Principles and Practice -Addison-Wesley, 1999.

[9] Hegering, Heinz-Gerd, Sebastian Abeck, Bernhard Neumair – Integrated Management of Networked Systems: Concepts, Architectures, and Their Operational Application (Networking) - Morgan Kaufmann, 1999