Remote System Access by E-mail

Ankit Awate, Ruchita Patil, Swapnil Mastekar, Priyanka Debnath, Prof. Supriya Chaudhary

Department of Information Technology, Padmabhushan Vasantdada Patil Pratishthan's College of Engineering, Maharashtra, India

ABSTRACT

In the proposed system, an interface is created using Java to receive and send Email. An Email id is registered with the host system. An Email containing commands will be sent to the host system (registered Email id) by the user. After receiving the Email, the host system will read the message and extract the commands from Email using Json. Depending on the message (commands mentioned in the Email), host system will execute the commands one by one. After completion of execution of commands, a confirmation Email will be sent from the remote system to the user.

Keywords : Remote System, System Access, E-mail, Interpreter, Commands Extractor

I. INTRODUCTION

In computer science, an interpreter normally means a computer program that executes, i.e. performs, instructions written in a programming language. An interpreter may be a program that either 1. Executes the source code directly. 2. Translates source code into some efficient intermediate representation (code) and immediately executes this. 3. Explicitly executes stored precompiled code made by a compiler which is part of the interpreter system. Source programs are compiled ahead of time and stored as machine independent code, which is then linked at run-time and executed by an interpreter and/or compiler (for JIT systems). While interpreting and compiling are the two main means, by which programming languages are implemented, these are not fully distinct categories, one of the reasons being that most interpreting systems also perform some translation work, just like compilers. The terms "interpreted language" or "compiled language" merely mean that the canonical implementation of that language is an interpreter or a compiler; a high level language is basically an abstraction which is (ideally) independent of particular implementations independent of particular implementations. Electronic mail, normally called email, is a technique for trading computerized messages from a creator to one or more beneficiaries. Current email works over the Internetwork other PC systems. Some early email frameworks required that the creator and the beneficiary both be online in the meantime, in a similar manner as texting. Today's email frameworks are 1 in view of a store-and-forward model.

II. EXISTING SYSTEM

In present situation there are many options to handle a personal computer. But normally, an user can operate his computer only when he is physically present in front of system. The other way to operate computer externally is remote desktop but disadvantage of remote desktop is that system is accessible only when both the users are present. User requires another system to operate the remote system & software has to be installed on both sides.

Example of such a system is 'Teamviewer'.
Both users require a user id and password to access the remote system (basically sharing the desktop).

Disadvantages of Existing system:

1. Software has to be installed on both sides.
2. User requires another system to operate the remote system.
3. System is accessible only when both the users are present.

III. PROPOSED SYSTEM

Initially, the functionalities will be identified which will be implemented in the software. In the first module a user friendly Host Interface will be designed. This interface will receive the mail and send a response. A mechanism to access the received mail by the desired system will be designed. In the second module the commands which are received by the system from the mail will be decoded. System will then parse the commands so that it is easy for decoding in later stages or to extract the commands and parameters.

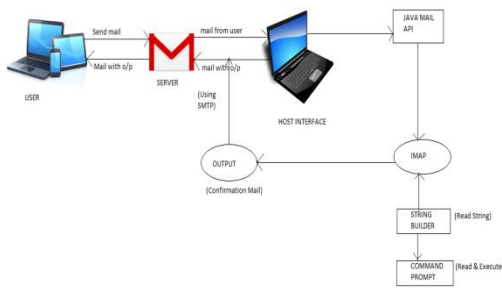The architecture of the Proposed System is shown in Fig. 1

Figure 1. Proposed System Architecture

IV. ADVANTAGES OF PROPOSED SYSTEM

1. Execute commands from any place.
2. User can control Programs via E-mail.
3. User can operate remote system by using his mobile or any system which is compatible with E-mail services.
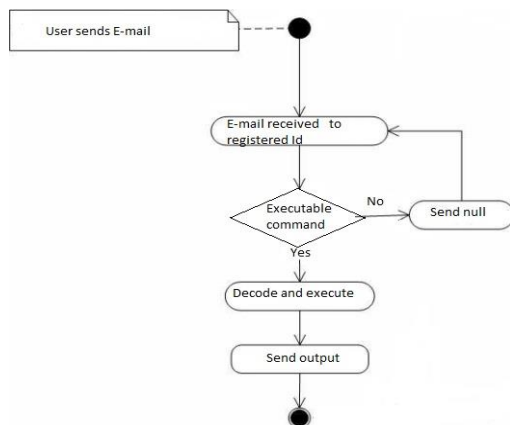

Figure 2. Activity Diagram of the Proposed System
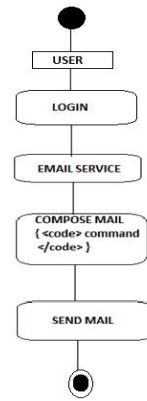(Entity- software)

Figure 3. Activity Diagram of the Proposed System
(Entity- user)

V. IMPLEMENTATION AND DESIGN

In order to implement the above discussed Proposed System, a combination of techniques and some services as mentioned below.

Interpreter:

In computer science, an interpreter normally means a computer program that executes, i.e. performs, instructions written in a programming language. An interpreter may be a program that either:-

1. Executes the source code directly

2. Translates source code into some efficient intermediate representation (code) and immediately executes this

3. Explicitly executes stored precompiled code made by a compiler which is part of the interpreter system

Email:

Electronic mail is a method of exchanging digital messages from an author to one or more recipients. Modern email operates across the Internet or other computer networks. Today'semail systems are based on a store and forward model. Email servers accept, forward, deliver forward, delivercarried out for every cell. This gives the feature vector for the input image using local binary pattern (LBP).
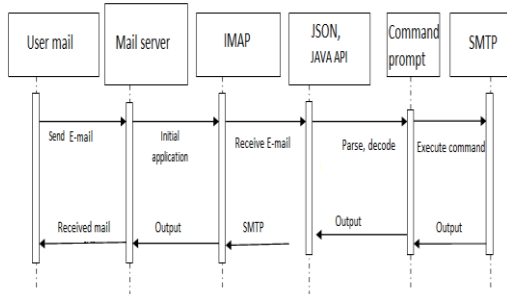
Figure 4. Sequence Diagram of the Proposed System

VI. CONCLUSION AND FUTURE SCOPE

In SAM (System Access by Mail), user can send email from any system like mobile or computer system to the proposed software which is to be remotely accessed. Main advantage of developing this type of project is, no need of any end user to handle the system where the software is loaded. The software is totally automated so no need to start the software after starting the computer system where the software is loaded. Host system is registered with a particular E-mail id. User will send an E-mail which contains commands to the software's registered E-mail with specified pattern. The software will execute that command without any help of human. After execution of the command it will automatically attach executed command to the mail id of user.

As the aim of our project is to develop a software that will access a remote system by Mail, one can access the remote system having the designed software by sending commands without the help of any end user which is expected to further enhance the efficiency of the system.

OUTPUT

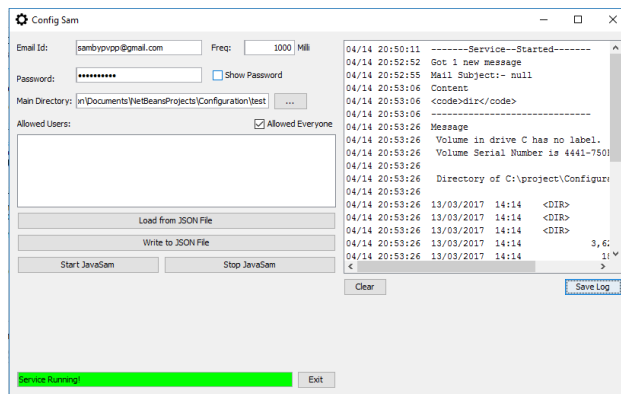**Figure 5.** E-mail sent to the System (Command to be executed)

Figure 6. User Interface (Executing the commands received and sending the output)
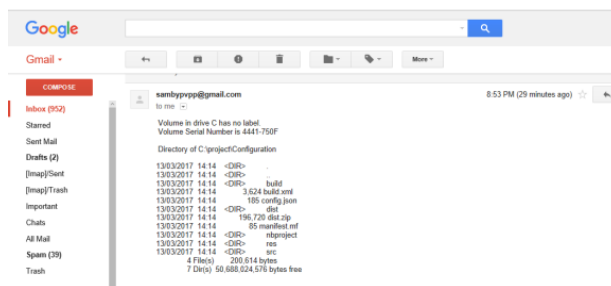

Figure 7. Reply e-mail received from the system

VII. REFERENCES

[1]. The use of passwords for controlling access to remote computer systems and services by HELEN M. WOOD National Bureau of Standards Washington, DC

[2]. Providing Easier Access to Remote Objects in Client-Server Systems Jonathan Aldrich, James Dooley, Scott Mandelsohn, and Adam Rifkin California Institute of Technology {jonal, jdooley, scott, adam}@cs.caltech.edu

[3]. https://access.redhat.com/documentation/en-US/Red_Hat_Enterprise_Linux/4/html/Desktop_Deployment_Guide/ch-ddg-remote-desktop.html