

MAIL PRIVACY SAFEGUARDING THROUGH TEMPORARY USER MANAGEMENT

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Abstract— The advancing computational capacity of wireless end-user equipment (UE), as well as the increasing concerns about sharing private data, a new paradigm has emerged, namely federated learning (FL). Specifically, FL allows a decoupling of data provision at UE model aggregation at a central unit. By training model locally, FL is capable of avoiding direct data leakage from the UEs, thereby preserving privacy and security to some extent. However, even if raw data are not disclosed from UEs, individual's private information can still be extracted by some recently discovered attacks against the FL architecture. In this work, we analyze the privacy and security issues in FL, and discuss several challenges on preserving privacy and security when designing FL systems. In addition, we provide extensive simulation results to showcase the discussed issues and possible solutions. Many websites allow or require users to use their e-mail addresses either as identity or for other purposes. Although username-based identity problems resulting from users' behaviors have been a research focus for quite some time, the serious issues of using e-mail address as identity and the associated online behaviors of users have not been well investigated. In this paper, we discuss and analyze security and privacy problems resulting from using e-mail address as identity via well-designed user behavior survey and by investigating websites' design schemes. Our results illustrate that using e-mail address as identity poses high security and privacy risks. This is mainly because of the multiple usages of e-mail addresses and users' improper online habits. Moreover, we discuss drawbacks of existing solutions for e-mail address as identity and related password problems, and present potential solutions that may be used to secure online identity management systems in future.

Index Terms – Wireless end-user equipment, Federated Learning, Secure online identity management.

I. INTRODUCTION

The first step in the software development life cycle is the identification of the problem. As the success of the system depends largely on how accurately a problem is identified. The software used to solve the problem and develop the application site is Microsoft Visual Studio.Net with

VB.Net as programming language and MS-SQL Server 2000. Currently the mail management is being done through browser application. Since every detail regarding the mails are manually viewed, the time taken for processing is more and thus existing system is more time consuming. Continuous mail logins to various accounts results in more time consuming. When logged with any user, all mails will be available and it lacks the important mail privacy such as confidential mails. Automatic mail logins to various accounts results in less time and effort. Need not login too many accounts with providing passwords every time. Accessing through single application results in mail consolidation. Mail privacy is possible by avoiding temporary users to view all kind of mails. An application id required with a feature to maintain number of emails collectively within single application. So, this project identifies that and helps for mail management and auto responding even if mails are not read.

II. SYSTEM DEVELOPEMNT

1)Existing System:

The existing system has following disadvantages,

- Continuous mail logins to various accounts results in more time consuming.
- Need to login various accounts with typing username and passwords.

Complexity is more.

- When logged with any user, all mails will be available and it lacks the important mail privacy such as confidential mails.
- Have minimum level of security to confidential mails.

2) Advantages of Proposed System:

The proposed system has following advantages,

- Automatic mail logins to various accounts results in less time and effort.

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- Need not login too many accounts with providing passwords every time.
- Complexity is less.
- Accessing through single application results in mail consolidation.
- Increases the communication behavior.
- Mail privacy is possible by avoiding temporary users to view all kind of mails.
- User interactive one.

High security of confidential mails.

III. PROPOSED MODULES

1) Module Description:

The project is designed using Microsoft Visual Studio.Net 2005 as front end, which works in .Net framework version 2.0. The coding language used is Visual Basic .Net. The back end used is Microsoft SQL Server 2000. The following are the main modules in the project.

- Mail settings for recipient mail
- Auto response settings
- Temporary user settings
- Mail ID categorization
- Mail Settings For Incoming Mails

The module contains options for adding a number of email users (especially Gmail accounts since gmail only allows free pop3 access) along with their passwords in the database. This module receives mail from all accounts at periodic intervals and store the mails offline. The new mails received alerts are also displayed. The mail from various accounts can be saved in different folders for easy reference.

2) Mail Settings For Recipient Mail:

The module contains options for adding recipient mail settings so that all incoming mails from specific mail ids are redirected to this mail. The subject will contain the sender's mail id so that the recipient user understands from mail id.

3) Auto Response Settings:

This module contains options for adding auto response message settings so that specific mails can be auto responded if not read for a specific period of

time. The details can be send as SMS to the sender's personal mobile number.

4) Temporary User Settings:

This module contains options for adding temporary users to the application so that specific mails cannot be viewed by those users.

5) Mail ID Categorization:

This module contains options for categorizing mails ids as public or private. This helps to avoid temporary users to view the confidential mails.

IV. SYSTEM IMPLEMENTATION

When the initial design was done for the system, the client was consulted for the acceptance of the design so that further proceedings of the system development can be carried on. After the development of the system a demonstration was given to them about the working of the system. The aim of the system illustration was to identify any malfunction of the system. After the management of the system was approved the system implemented in the concern, initially the system was run parallel with existing manual system. The system has been tested with live data and has proved to be error free and user friendly. Implementation is the process of converting a new or revised system design into an operational one when the initial design was done by the system; a demonstration was given to the end user about the working system. This process is used to verify and identify any logical mess working of the system by feeding various combinations of test data. After the approval of the system by both end user and management the system was implemented. System implementation is made up of many activities. The six major activities are as follow.

V. CONCLUSION

The new system eliminates the difficulties in the existing system. It is developed in a user-friendly manner. The system is very fast and any transaction can be viewed or retaken at any level. Error messages are given at each level of input of individual stages. This software is very particular in reducing the work and achieving the accuracy. It

will reduce time be avoids redundancy of data. The user can easily understand the details available from the report. This software will support for the future development. The software is menu driven. Mail can be stored and also can be retrieved offline also. Since the project is designed as software, a user can automatic mail logins to various accounts results in less time and effort. Need not login too many accounts with providing passwords every time. Accessing through single application results in mail consolidation. Mail privacy is possible by avoiding temporary users to view all kind of mails. In this project, I have overcome some of the drawbacks such as speed and accuracy is maintained in the project, mail username are entered in formatted manner, Modification and maintenance can be made very easily and application is tested with more mail users for mail receiving and tested whether working or not.

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