AUTHENTICATION SYSTEM USING PASSWORD AS A IMPLICIT

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ABSTRACT

In this paper, we introduce an Authorization Scheme by using implicit password. As we know graphical password scheme suffered from shoulder-surfing and screen dump attacks. As we know for any security is the first line of defence against compromising confidentiality and integrity. Simply the username and password schemes are easy to implement. But that traditional scheme has been subjected to several attacks. Token and biometric based authorization systems were introduced for alternative to traditional scheme. However, they have not improved substantially to justify the investment.

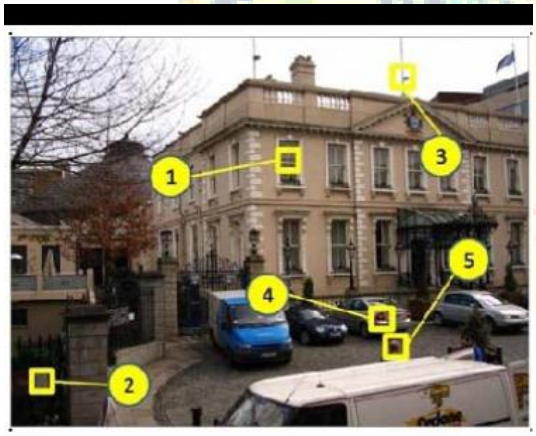
Keywords: security, usability, implicit authorization, behaviour modelling, Mobile

INTRODUCTION

A key area in security research is authorization, the determination of whether a user should be allowed access to a given system or resource The important aspect of authorization is confidentiality and integrity. Also, for protecting any resource adequate authorization is the first line of defense. I Also, for protection of resource we use authorization as a service. It is important that the same authorization technique should not be used in every situation. A complication is that users may have many passwords for Bank, network and web sites. The large number of passwords increases interference and it is lead to forgetting or confusing passwords.

The acceptability of any authorization scheme greatly depends on its robustness against attacks as well as its resource requirement both at the client and at the server end. It

means authorization scheme require processing at client and server end. Due to the proliferation of mobile and hand-held devices the resource requirement has become a major factor. The implicit passwords main Application is the protection of critical resources and systems. Nowadays users can access any information including banking and corporate database with the use of mobile phones. In this paper, we target the mobile banking domain and propose a new and intelligent authorization scheme that is implicit password. However, our proposal can also be used in other scenario where confidentiality and integrity are the major security requirements. We propose our Authorization System using Implicit Password. in which the scheme allows any image to be used and it does not need artificial predefined click regions with well-marked boundaries – a password can be any arbitrarily chosen sequence of points in the image with some finer differences. In IPAS, the server has the a piece of information i.e. password at the time of authentication and at the time of registration , the user give this information to the server in an implicit form. implicit password is particularly suited for mobile phones and portable computers, although it may be implemented for any computer.

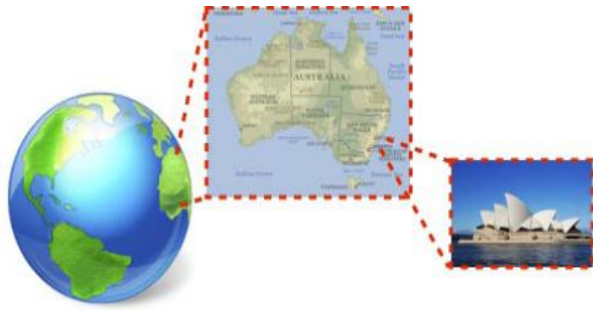


Example of a PassPoint System

IMPLEMENTATION

Implementation is the stage of the project when the theoretical concept is turned out into a working system. Thus implementation is considered as the most critical stage in achieving a successful new system and in giving the user, confidence that the new system will work and be effective.

The implementation stage involves careful planning, analysis of the existing system and it's constraints on implementation, designing of methods to achieve changeover and evaluation of changeover methods.



Main Modules:-

MODULES:

Create the profile for user:

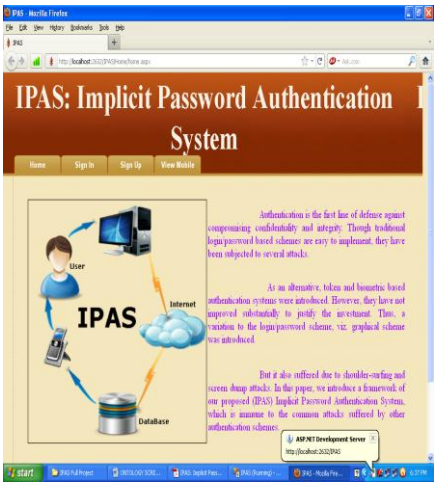
A user profile is a collection of personal data associated to a specific user .A profile can be used to store the description of the characteristics of person. This information can be exploited by systems taking into account the persons' characteristics and preferences. At the time of registration every user selects answer for security questions and provides their individual answer. For each question, the system then either creates an authentication space .After the authentication space is created, the system is ready for authenticating a user.

Generation of Random Question:

For each question, the server may show a random scenario from the authentication space that represents the correct answer. The chosen scenario have one or more "clickable" points that represent the answer to the question provided by the particular user.

Compare login Profile / User Profile

The applications need to gather, and exploit, some information about individuals in order to provide password. This area is broadly called user profiling as long as the user enter User name and answer as location points for the random security question will decide that the user is authenticated or not. The information for authorization is presented to the user in the implicit form that can be understood and decoded only by the legitimate end user.



Short Message Service:

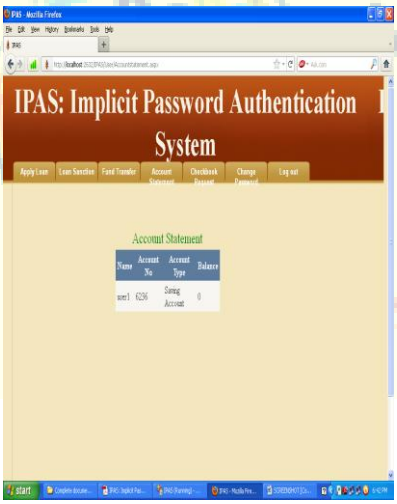
SMS or Short Message Service allows Mobile or Cellular phones to send and receive Text Messages. This can be graphical and more recently alphanumeric. A sent SMS message is stored at an SMS Center (SMSC) until the receiver's phone receives it. With the help of sender's number which is included in the message itself, the receiver can identify the sender. The User will Check the Mobile Inbox if any alert messages received or not.

Transactions on Mobile:

Transaction on mobile is used to transform money between two peoples. These two peoples must be registered with implicit password authorization system in a Bank. This transaction starts with SMS. If USER1 wants to transfer money to USER2, both of them must have mobile phone. User must login with IPAS. User1 simply types SMS to particularly bank with Amount, his 4 digits PIN and Account No. Bank server processes the request and Amount is transferred to designation account. Confirmation SMS is sends to particular USER.

Balance Enquiry / Account Management:

User can also deposit the amount to another user; Admin can manage the account details of the user's, If any update in the balance amount as both users can see in mobile. User sends money to another user, that messages can able to view the particular user and know the balance details. It refreshes the inbox details automatically.



INPUT DESIGN

The input design is the link between the user and the information system. It comprises procedures for data preparation and the developing specification and those steps are necessary to put transaction data in to a usable form for processing can be achieved by inspecting the computer to read data from a written or printed document or it can occur by having people keying the data directly into the system. The design of input system focuses on controlling the errors, controlling the amount of input required, avoiding delay, avoiding extra steps and keeping the process simple. The input is designed in such a way so that it provides ease of use with retaining the privacy and security. Input Design considered the

following things:

What data and how much data should be given as input?

How the data should be coded or arranged?

The dialog to guide the operating personnel in providing input.

Methods for preparing input validations and steps to follow when error occur.

OBJECTIVES:

1. Input Design is the process of transferring a user-oriented description of the input into a computer-based system. This design is important to avoid errors in the data input process and show the correct direction to the management for getting correct information from the computerized system.
2. It is achieved by creating user-friendly screens for the data entry to handle large volume of data. The aim of designing input is to make data entry easier and to be free from errors. The data entry screen is designed in such a way that all the data manipulates can be performed. It also provides record viewing facilities

IV. SYSTEM ANALYSIS

Existing System:

The example of "what you know type" is The traditional username/password or PIN based authorization scheme. The biometric system was introduce, as an alternative to the traditional password based scheme,. This relies upon unique features unchanged during the life time of a human, such as finger prints, iris etc.

Token based systems rely on the use of a physical device such as smartcards or electronic-key for authentication purpose. Graphical-based password techniques , supported partially by the fact that humans can remember images better than text, which have been proposed as a potential alternative to text-based techniques. In general, the graphical password techniques can be classified into two categories: recall based and recognition-based graphical techniques.

In recall-based systems, the user is asked to reproduce something that he/she created or selected earlier during the registration phase. Recall based schemes can be broadly classified into two groups, pure recall-based technique and cued recall-based technique. In recognition-based systems, a group of images are displayed to the user and an accepted authentication requires a correct image being clicked or touched in a particular order.

Disadvantages:

- Alphanumeric passwords have problems such as being hard to remember, dictionary attack, key-logger, vulnerable to guessing, shoulder-surfing and social engineering.
- The major problem of biometric as an authentication scheme is the high cost of additional devices needed for identification process.

Although a recognition-based graphical password seems to be easy to remember, which increases the usability, it is not completely secure. It needs several rounds of image recognition for authorization to provide a reasonably large password space, which is tedious.

PROPOSED SYSTEM:

In this paper, we specially focus only on "what you know" types of authentication. We propose our Implicit Password Authorization System. IPAS is similar to the Pass Point scheme with some finer differences. In every "what you know type" authentication scheme we are aware of, the server requests the user to reproduce the fact given to the server at the time of registration. This is also true in graphical passwords such as Pass Point. In IPAS, we consider the piece of information i.e. password as a known to the server at the time of registration and at the time of authorization, the user give this information in an implicit form that can be understood only by the server.

Advantages:

The strength of IPAS depends greatly on how effectively the authorization information is embedded implicitly in an image and it should be easy to decrypt for a legitimate user and highly fuzzy for a non-legitimate user. The authorization information is conveyed implicitly, that's why No password information is exchanged between the client and the server in IPAS.

V. **Conclusion**

In this paper, we have proposed a new Implicit Password Authorization System, where the information of authorization is presented to the user implicitly. If the user "clicks" the same grid-of-interest compared with the server, the user is implicitly authenticated. No password information is exchanged between the client and the server in IPAS. Since the authorization information is conveyed implicitly, IPAS can tolerate shoulder-surfing and screen dump attack, which none of the existing schemes can tolerate. The strength of IPAS lies in creating a good authorization space with a sufficiently large collection of images to avoid short repeating cycles. Compared to other methods reviewed in our paper, IPAS may

require careful selection of images and "click" regions and human-interaction. IPAS may also need user training. Once this is done, IPAS can be more robust. In our subsequent papers, we present various steps involved in creating a robust authorization space for every question.

VI. REFERENCES

Good Teachers are worth more than thousand books, we have them in Our Department

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OPS → Object Oriented Programming Concepts

TCP/IP → Transmission Control Protocol/Internet Protocol

CLR → Common Language Runtime

CLS → Common Language Specification