Captcha as Graphical Passwords—A New Security Primitive Based on Hard AI Problems

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***Abstract*— Internet is being used for several activities by a great range of users. These activities include communication, e-commerce, education and entertainment.Users are required to register regarding website in order to enroll web activities.However, registration can be done by automated hacking software. That software make false enrollments which occupy the resources of the web site by reducing the performance and efficiency of server even stop the entire web service.we present a new security primitive based on hard AI problems , A novel family graphical password systems built on top of Captcha technology,which we call Captcha as a graphical passwords (CaRP) . CaRP is both a Captcha and a graphical password scheme. CaRP addresses a number of the security problems altogether , such as a of online guessing attacks, relay attacks and if combined with dual-view technologies,shoulder-surfing attacks. It offers reasonable security and usability and appear to fit well with some practical applications for improving online security.**

***Index Terms*— Captcha, Carp,Graphical password, Web Security.**

I. INTRODUCTION

Most of the daily activities such as education,shopping or commerce are being carried out through the Internet. User are commonly asked to fill out registration forms by enter required information to be able to operate specific tasks on th e web sites. However, registration can be done by auto--mated hacking software. Some people commit vandalistic acts such as attacking web sites with computer programs, and even can stop the running of the website. These progr -ams automatically fill out a form with wrong information to get in the web site. Therefore,web site holders are supp -osed to take precautions against those attacks for security.Computers are not as intelligent as human.Machines have lack the ability to process on visual data.This is because Computers lack the " Real intelligence ". Captcha makes the use of this thing and provides a visual test to the user or human. It is more easily possible for human to look for an image and find out appropriate pattern from it . In this password scheme at the time of implementation the user is presented withan image which contains some pattern. This pattern contains distorted or randomly stretched characters which only humans should be able to identify.CaRP offers protection against online dictionary attacks on passwords. which have been for long time a major security threat for various online services.CaRP is robust to shoulder-surfing attacks if combined with dual-view technologies

II. PROBLEM STATEMENT

In this paper , we introduce a new security primitive based on hard AI problems, namely , a novel family of graphical password systems integrating Captcha technology, This is a challenging and interesting open problem.It is called *Captcha as a graphical password* Focusing on drawbacks and inadequacies of existing process, definitely there is need of an efficient system. The proposed system rectifies the demerits and defects of existing process to a greater extend.

III. LITERATURE SURVEY

A large number of graphical password schemes have been proposed. They can be classified into three categories according to the task involved in memorizing and entering passwords: recognition, recall and cued recall.In recognition based system, User is presented set of images.User has to choose image as password and user has to recognized password during registration stage.Recognition is typically the weakest in resisting guessing attacks. Many proposed system recognition-based schemes practically have a password space in the range of 2^{13} to 2^{16} passwords A recall-based scheme requires a user has to draw something on a two dimentional grid. Draw-A-Secret (DAS) was the first recall-based scheme proposed.DAS and Pass-Go system were successfully broken with guessing attacks using dictionaries of 2^{31} to 2^{41} entries, as compared to the full password space of 2^{58} entries.In a cued-recall scheme, an external cue is provided to help memorize and enter a password. PassPoints is a widely studied click-based cued-recall scheme where in a user clicks a sequence of points anywhere on an image in creating a password, and re-clicks the same sequence during authentication.Hotspots were exploited to mount successful guessing attacks on passpoints. Many kind of other the survey form to surf website. Today due to increased technology hacking software is available to fill all details automatically. Hence attacker attacks by false entry on such site to increase traffic, occupy the resource of website reduce the performance and efficiency of server and some time it may stop the entire web site.In proposed based system we improving online security

IV. PROPOSED SYSTEM

In CaRP, a new image is generated for every login attempt,even for the same user. CaRP uses an *alphabet* of visual objects (e.g., alphanumerical characters, similar images) to generate a CaRP image, which is also a Captcha challenge.CaRP schemes can be classified into two categories:

1 Recognition schemes

Recognition -based CaRP seems to have access to an generate three different visual objects.User choose one visual object out of three. which requires recognizing an image and using the recognized objects as cues to enter a password.

2. Recognition-recall schemes

In recognition-recall CaRP, a password is a sequence of some invariant points of objects.When user creating password click on the image to generate x,y cooradinates.During authentication, the user first identifies her chosen characters, and clicks the password points on the right characters. The authentication server maps each user-clicked point on the image to find the closest clickable point. If their distance exceeds a tolerable range, login fails. Otherwise a sequence of clickable points is recovered and its hash value is computed to compare with the stored value.

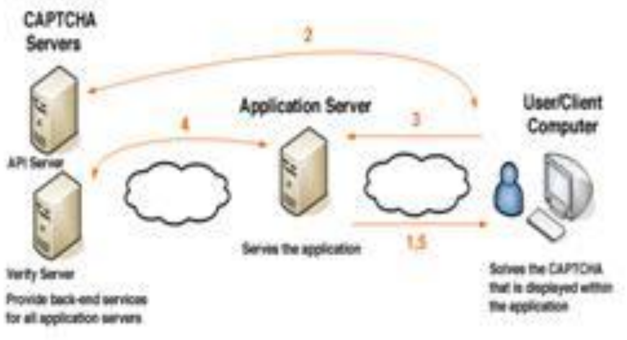

Fig. Proposed system

VI. CONCLUSION

The paper conducts a comprehensive survey of CAPTCHA as Graphical Password schemes which will be a new Security primitive relying on unsolved hard AI problems. CaRP is both a Captcha and a graphical password scheme. As it is combination of both Captcha and Graphical password it makes it very hard to guess the password to the intruders or bots. Effective use of both the techniques makes it useful to use it for smartphones and computers accessing the secure applications such as banking, mailing.

V.REFERENCES

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