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## A Mobile based Anti-Phishing Scheme using QR Code

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**ABSTRACT:** As this Internet era is increasing now a day which results in developing of information and communication technology. Users are using the online facilities for the different purpose like banking transaction. Due to these, protecting sensitive information from the malwares or web phishing is becoming difficult from attackers. Using only the username and the password for authentication and security is not sufficient to protect our data. Attackers can collect personal information from the computer infection or from the web phishing. Therefore this requires more advanced version of security mechanism. In this paper, we propose to prevention from in web phishing by using secure QR code as Anti-Phishing mechanism.

**KEYWORDS:** QR code, secure communication, Anti-phishing

### I. INTRODUCTION

These days, clients can get to the Internet and get the data comprehensively spread on the sites. After accepting a demand for data, the server asks for the client ID and secret key to turn out to be verified is a honest to goodness client or not. In any case, there are a few malignant exercises that could make the confirmation plan defenceless. One of those is a web phishing, in which an aggressor endeavors to obtain delicate data, for example, usernames, passwords, and individual data, for example, MasterCard number or enrolment number. Particularly, web phishing is broadly utilized through the Social Organizing Service (SNS). The SNS advances the relationship among unspecified personals or gathering on online with no confinements or imperatives. Then again, the far reaching data and stacked-up individual associations can be terminals of web phishing. An enemy can just copy honest to goodness sites and make a fake site. A client who got to the fake site could sort in the ID/secret word on the other hand touchy data on the fake site which may prompt fraud.

In this paper, we talk about web phishing issue on the single sign-on confirmation, propose an confirmation plan secure against the phishing assault and questioned nearby PC environment.

#### A. QR CODE :

QR code (shortened from Quick Response Code) is the trademark for a kind of grid scanner tag initially intended for the car business in Japan. A scanner tag is a machine-decipherable optical name that contains data about the thing to which it is appended. A QR code utilizes four institutionalized encoding modes to effectively store information; expansions may likewise be utilized.

The QR code framework got to be well known outside the car business because of its quick lucidness and more noteworthy stockpiling limit contrasted with standard UPC scanner tags. Applications incorporate item following, thing distinguishing proof, time following, record administration, and general showcasing.

A QR code comprises of dark squares masterminded in a square network on a white foundation, which can be perused by an imaging gadget, for example, a camera, and handled utilizing Reed Solomon mistake remedy until the picture can be properly translated. The required information are then removed from examples that are available in both level and vertical parts of the picture.

#### B. SECURE COMMUNICATION :

Secure correspondence is when two elements are conveying and do not need an outsider to listen in. For that they have to impart in a way not helpless to listening stealthily or capture attempt. Secure correspondence incorporates



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implies by which individuals can impart data to differing degrees of sureness that third parties can't block information exchanged.

With numerous interchanges occurring over long separation and interceded by innovation, and expanding attention to the significance of block attempt issues, innovation and its trade off are at the heart of this civil argument.

## C. ANTI-PHISHING :

Hostile to phishing procedure is utilized to distinguish phishing content contained in sites and email or piece clients from being deceived. It is regularly coordinated with web programs and email customers as a toolbar that shows the genuine space name for the site the viewer is going to, trying to keep deceitful sites from taking on the appearance of other real sites.

## II. LITERATURE SURVEY

### A. SECRET HIDING MECHANISM USING QR BARCODE

In this paper QR code is the commonly used two-dimensional (2D) barcode recently with the advantages of larger QR content and error correction capability.

### B. A MOBILE BASED ANTIPHISHING AUTHENTICATION SCHEME USING QR CODE

In this paper Using username and password authentication scheme is no more secure since attacker can collect information.

### C. REVERSIBLE DATA HIDING WITH HISTOGRAM BASED DIFFERENCE EXPANSION FOR QR CODE APPLICATIONS

In this paper algorithm in reversible data hiding, with the application associated with the quick response (QR) codes.

### D. SECURED AUTHENTICATION USING CHALLENGE-RESPONSE AND QUICK-RESPONSE CODE FOR ANDROID MOBILES

In this paper the authentication system should be fast and secured. Security has become extremely important in the digital society.

### E. A SYSTEM TO FILTER UNWANTED MESSAGES FROM OSN USER WALLS

The main contribution of this paper is the design of a system providing customizable content-based message filtering for OSNs, based on ML techniques.

## III. EXISTING SYSTEM

Some methods use a hash type file to verify users authentication request which increase risk of tampering. Existing methods are text based methods. These increase the risk of being identified in the long time. In previous system there having no more security and more chances of hacking the personal data of user.

## IV. PROPOSED SYSTEM

For phishing identification and counteractive action, we are proposing another procedure to distinguish the phishing site. Our system depends on the Anti-Phishing Image Captcha acceptance plan utilizing visual cryptography. It anticipates secret key and other secret data from the phishing sites. *WorkFlow* :

1. User tries to access the finance website through untrusted local computer.
2. User Types in the User Id and clicks on submit button .
3. Web server redirects user to extended authentication with SessionID, User Id and ServerInfo.
4. The web server verifies the Server Info. If verification fails, then the request is assumed to be invalid and session aborts.
5. The web server concatenates OpenID, ServerInfo and random nonce, and encrypts it with shared secret key.



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6. The server generates a QRCode with the encrypted data and time stamp and sends to desktop computer.
7. User Scans the QRCode using his/her Mobile device, and then decrypts the data using shared secret key. Thus mobile device acquires the information; OpenID and ServerInfo, and random nonce.
8. User types in the password in Mobile device generates a random nonce and then user inputs the password on the mobile device.
9. Mobile device encrypts OpenID, shared data, Password, and User Rand using shared key, and then creates a QR code with the encrypted data.
10. Once the QRCode is generated on phone, it is transferred again to Untrusted PC.
11. User enters the QRCode and clicks on login.
12. User gets the site home page.

## V. ADVANTAGES OF THE APPLICATION

1. No chances of hacking our personal information.
2. Most secure app for data communication.
3. Provides anti phishing feature to all users.
4. Secure authentication scheme.

## VI. ACKNOWLEDGEMENT

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## VII. CONCLUSION

In this paper a new methodology to detect the phishing website based on QR code is introduced. This system is convenient ,effective and gives good prediction of disease for any user for security. This work can be improved by expanding the quantity of traits for the current arrangement of our past work.

## REFERENCES

- [1] Kyeongwon Choi, Changbin Lee, WoongryulJeon, Kwangwoo Lee andDongho Won "A Mobile based Anti-Phishing Authentication Scheme usingQR code" in IEEE International Conference on Mobile IT Convergence (ICMIC), 2011 INSPEC Accession Number: 12330699.
- [2] Vaibhav Kale, YogeshNakat, Sameer Bhosale, AbhijeetBandal, RameshG.Patole, "A Mobile Based Authentication Scheme Using QR Code for BankSecurity",in International Journal of Advance Research in Computer Scienceand Management Studies, Volume 3, Issue 2, February 2015.
- [3] Siwon Sung, Joonghwan Lee, Jinmok Kim, JonghoMun, DonghoWon,"SECURITY ANALYSIS OF MOBILE AUTHENTICATION USING QRCODES" in Computer Science and Information Technology (CS and IT).
- [4] Vimal Kumar, Rakesh Kumar, "Detection of Phishing Attack Using VisualCryptography in Ad hoc Network" in IEEE, 978-1-4799-8081-9/15 2015.
- [5] Seok-Ju Lee, GirmaTewolde, Jongil Lim, Jaerock Kwon, "QR-code based Localizationfor Indoor Mobile Robot with Validation using a 3D Optical TrackingInstrument", in 2015 IEEE International Conference on Advanced IntelligentMechatronics (AIM) July 7-11, 2015. Busan, Korea.
- [6] Y.YesuJyothi, D. Srinivas, K. Govindaraju, "THE SECURED ANTI PHISHINGAPPROACH USING IMAGE BASED VALIDATION", InternationalJournal of Research in Computer and Communication Technology, Vol 2, Issue9, September -2013.
- [7] Ganesh Kumar Mahato, Sharma Kishan S., KurkureShreyasi S., "A MOBILEBASED ANTI-PHISHING AUTHENTICATION SCHEME USINGCHALLENGE-RESPONSE AND QUICK RESPONSE CODE", in InternationalJournal of Innovation in Engineering, Research and Technology [IJERT]ICITDCEME15 Conference Proceedings ISSN No - 2394-3696.
- [8] Teddy Mantoro, M. ImanWahyudi, Media A. Ayu, Wendi Usino, "Real-timePrinted Document Authentication Using Watermarked QR Code", in 2015Fourth International Conference on Cyber Security, CyberWarfare, and DigitalForensic, 978-1-4673-8499-5/15 2015 IEEE.