

Online Voting System with Security through Networks

L.MAMATHA

Assistant professor, Department of computer science and engineering, Kg reddy college of engineering and technology

Abstract- Internet voting systems have gained popularity and have been used for government elections and referendums in the Great Britain, Estonia and Switzerland as well as local elections in Canada and party elections in the United States. The voting system may include the transmission of ballot papers and votes via private computer networks or the Internet. Electronic voting technology can accelerate the counting of ballots and provide better accessibility to disabled people with disabilities.

The purpose of this paper is to provide people who are citizens of India and over 18 years of age and of any gender her voice through online without going to any physical polling station. Electoral Commission Officer (Electoral Commission Representative who verifies that registered users and candidates are authentic or not to participate in online voting. This

Online voting system is very secure, and its design is very simple, easy to use and also reliable. The proposed software is developed and tested to work on Ethernet and enables online voting. It also creates and manages votes and elections Detail, as all users need to log in by username and password and click on their cheap candidates to register. This will Increase the voting share in India. Using high security reduces false votes.

1. INTRODUCTION

The current form of parliamentary elections in India is based solely on paper-based and largely manual electoral procedures. New technology with advanced dial-up client machines (voting terminals for voting) can bring several benefits. It can expand the constituency. It also creates room for faster tuning and distribution of seats. This also allows the election administration to publicize the election results in a larger circle. The risk of voting errors can also be largely eliminated. The new technology also has disadvantages that need to be considered. One difficulty is to ensure the secrecy of ballots with absolute certainty. Another is the question of how the reliability of the system can be guaranteed. that the

system works the way it should in all situations. Another disadvantage is the cost of development and operation. All in all, safety and reliability are the most important considerations. In this proposed system, the Internet is changing citizens' expectations of the speed and convenience with which all government services and elections should be conducted. We use the Internet to shop, to do banking, to maintain our social and professional networks and to find answers to our questions. Since the election in 2004, the first fully integrated online voter registration service in North America, British Colombians are also using the Internet for election. It is natural that citizens ask when they can vote online, especially as banks and other transactions that require the security of personal privacy are routinely conducted in the virtual world. Internet voting issues have sparked a heated debate Decision-makers, election officials, computer experts, scientists, private technology providers and interested citizens are discussing the potentially far-reaching consequences of this form of voting for the security, transparency and integrity of elections and census processes. Several prominent computer security and e-law Experts expressed concerns about the suitability of the Internet as an electoral platform for the electoral system over the Internet.

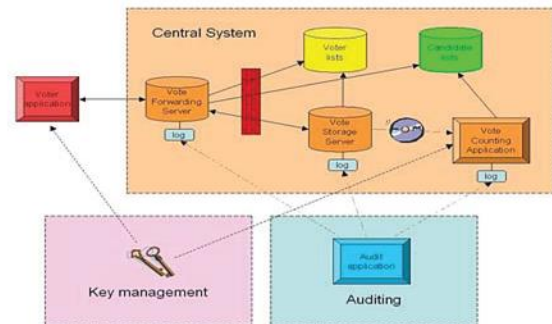


Figure 1 shows the architecture

2. PROBLEM BACKGROUND

This paper addresses the question of what Internet voting may mean. Our intent is not to propose a particular online voting solution, but rather to provide input to a future government committee or task force that may be created to delve further into the topic. Benefits and risks of Internet voting are discussed in terms of seven of the core civilian principles that shape modern electoral systems: accessibility, equal voting power, secrecy, security, audit ability, transparency, and simplicity.

3. PROBLEM STATEMENT

The Internet vote is about making the act of voting as convenient as possible as possible and it promises to improve a lot Accessibility, especially for those who are not in the Jurisdiction, living in a remote area or having mobility Problems. However, this voting channel carries risks for some of the basic principles of democratic systems. As policy makers consider a place for internet voting, it is important to strike a balance between the competitors principles, All of this is crucial to the integrity of the elections public confidence in election results is maintained.

4. RESEARCH OBJECTIVE

The main goal of this work is the development of an interactive Voting system application that allows users to participate Use your previously saved information in the database as you create it .The voter ID and information must be update in a timeframe of less than six months for a perfect user verification from the Independent Electoral Commission of India(IECI). In this system, people who have citizenship of India and whose age is over 18 years and can be of any gender her voice through online without going to any physical Polling station. After registration, each voter / user will be with the certain ID issued by the Electoral Commission of the India along with the online registration ID, d. H. Username. Each time you log in to the system, the user is validated with both of the ID. Through this development we have can get a secured website that includes all votes Methods in a single website.

5. SCOPE OF STUDY

The scope of the work is that it uses the ID and the password created by user to register him / her on the election page this will save all details of the voter in the database. And it will serve as the main security for the electoral system. Advanced technology: It's an advanced technology

use one day now. It raises the Internet of the User that is very necessary for the current generation.

Internet: It is an online facility and therefore very useful for the users. Voters can vote from anywhere at any time in India

Emails: Electoral Commission can send the error Report a specific user if he entered incorrect information.

Image: The image is captured online and online. The image is validated with the image in the database. Traditionally in a manual, paper-based voting system, Voters need to reach the polling stations to vote Being in a long queue makes it very difficult So that voters can cast their votes in this way, there is on low vote [1]. In 2004, Chaum [Ch04] and, Independently, Neff [Ne04] 316 proposed cryptography secure voting systems to which the voter has access at the time of voting no computer device. Since then most of the research has been so bare-handed,

End-to-end verifiable voting systems [2].In 2004, the Ministry of Defense has the Internet-based dialing system SERVE, which was developed Accenture on a contract for \$ 22 million [3, 4] because legitimate security concerns of the academic community

[5]. At the same time, the source code of currently used electronic voting systems has been reviewed and a large number of errors were unearthed [6].In 2010

Washington,DC. developed an internet voting Pilot project, which should allow absenteeism abroad Voters cast their vote through a website [8]. In front

Use of the system in the general elections, the district held a unique public trial: a sham election during the Everyone was invited to test the system or make compromises his safety [9]. There are some disadvantages with This system may have a software error problem, unsafe Access to the Internet and voters should be familiar with it Internet [7] In our proposed system, we proposed a new blind signature

This is a special form of digital signature that was introduced in 1982 by David Chaum, in which the content of a message is blinded before the signature.

In blind Signature scheme, the signer signs the blind message his / her private key and everyone can

confirm the legitimacy of the signature using the signer's public key [14]. This software is developed for the use of e-voting. Here every user is registered with the application. After Registration Each voter / user is assigned with the specific one ID generated by the Electoral Commission of India with the online registration ID, d. H. Username. With everybody Log in time to the system used to validate the user both of the ID. Through this development we can have one secured website includes all voting methods on a single website. Internet voting poses a challenge to policymakers. On the positive side, internet voting is in line with the B.C. government Political direction to give citizens access a wider variety of high-quality online services [11, 12]. Internet voting offers voters a convenient alternative to In Person Vote: This may be important for voters Who has difficulty using personal options? And finally there are concerns about the digital divide Decreasing as the proportion of British, the Use the Internet continues to grow [15, 16]. Policymakers need to weigh these positive considerations with compromises that internet voting would bring with it for several basic principles of elections. With the State of the art, Internet Voting is considered less effective than traditional, personal and postal voting Methods to Protect Votes Against Big Cale Fraud, Ensuring the secrecy of choice and providing a complete transparent and observable process that can be effectively audited. Because specialized computer skills are required To watch an internet election process, voters would have to do i Delegate your trust to "experts" to confirm the election is done correctly [18, 19] By these methods a goal of it Research is to capture the image through the camera at the time to log in to the site and it validates the image with with the generated password. Then this is the specific login authenticated.

6. DESIGN AND IMPLEMENTATION

Electronic voting technology can use punched cards, optical tuning systems and specialized voting kiosks (including self-contained direct electronic voting Systems [17] or DRE). To increase safet E-voting system to another level, which is quiet concern different origins we have implemented an online image Verification system. The goal of this design is to develop an interactive voting System, with the user

through their Pictures that were previously saved in the database [10] while the The voter ID and image must be updated at a specific time less than six months for the perfect user review. The project will involve three phases: the development of a graphic front-end to the voting system; the development a method of interacting with webcams, and the development of a web-based administration tool. The new user must create his photo during registration in the e-voting system. That should not be surprising. Almost every week we hear about one or the other system is infiltrated by outsiders, including teens and overseas Criminals [20, 21]. Organizations that could not protect networks and applications include banks, government Agencies, the Ministry of Defense and ironically, Internet security companies. For the public, like some legislators, It seems intuitive to accept: "We use ATMs and bank online without problems, why not choose it? "The Argument fails theoretically and practically. The anonymous Ballot does not provide verification and proof of Bank receipts or double-entry bookkeeping that help Recognize fraud [22, 23]. ATMs are bank-owned computers with a special network Security, much safer than general purpose computers [24]. Nevertheless, banks lose billions of scams each year ATMs and online banking. The system is very uncertain and prone to electoral errors. Due to the fact that all Student can come and fill out a ballot without first Authentication to determine who he / she says they are is one greatest concern [25, 26]

7. ALGORITHM

Recent work on facial recognition with continuous density Hidden Markov Models (HMMs) have shown that stochastic Modeling can be successfully used to code feature information. When frontal images of faces are scanned using Top-down scanning has a natural order in which the Features appear and this can be conveniently modeled Using a top-bottom HMM. However, an up-down HMM is characterized by various parameters, the choice of what used to be based on subjective intuition. This Paper presents a series of experimental results in which various HMM parameterizations are analyzed. implement the Eigen faces, Fisher faces and SIFT match Algorithms. The following algorithm gives the work of

Principal Component Analysis (PCA): Principal component analysis:

$p = a$ random vector

Make c :

$t = 0$ (a vector of length m)

For every row $x \in XT$

$t = t + (x * p) x$

$p = t$

t

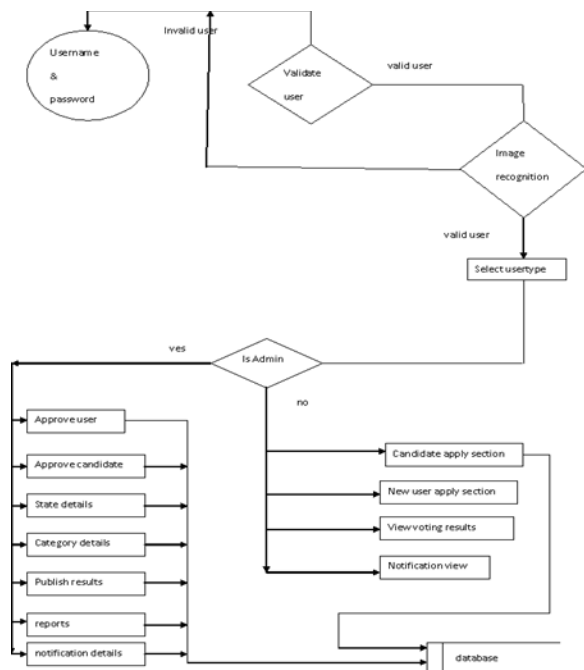
Back p

8. METHODOLOGY

Every voter should have a personal identification number. This number will automatically appear together with the ID stored in the database. Let's use $256 * 256$ pixel bitmap Cover picture should be clear, so it will be very easy for comparison. This image is selected from a Image set in the system that corresponds to the title image. Cover picture is a simple picture for personal identification about the basic picture. So, the cover picture is for every voter different, what are the chances of predicting the Picture of an attacker during the transfer.

9. WORKFLOW

Figure 2 shows the workflow for the user identity and a perfect image is compared and validated.



10. EXPERIMENTAL RESULT

Voting system requires verification of the user by the username and password and Figure 3 shows the Homepage together with the login panel. From the above page, the image is saved when you log in on the database is compared with the image during the time The authentication is done by Figure 4. After the perfect authentication the user can then Vote for the desired candidate as shown in Figure 5.



Fig 3. Home page



Fig 4. Image recognition



Figure 5. Voting page

11. CONCLUSION

In this work we have introduced a method of integration Cryptography over the network to provide high security Online voting system. The security level of our system is greatly improved by the new idea of random coverage Generation for every voter. The user authentication process of the system is improved by adding both face recognition and

password security. The recognition section of The system is secured by the title image. This system will exclude illegal practices such as rigging. So the citizens They can be sure that they can choose their guides alone Exercise of their right in democracy. The use of online Voting has the ability to reduce or remove unwanted human failure. In addition to its reliability, online voting can handle several modalities and offers better scalability for big elections. Online voting is also an excellent on Mechanism that does not require geographic proximity the voter. For example, soldiers can participate abroad in elections by online vote. Therefore, with this vote share will increase dramatically.

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