IMPLEMENTATION OF SECURE PLATFORM FOR E-VOTING SYSTEM

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INTRODUCTION:

An election is a formal decision making process by which a population chooses an
individual to hold a public office. Now days, Election is becoming online. But if the voting
system is made online, the security is the major concern. The web based internet voting system
provides security to vote when it is transmitting from voting client to voting server.

OBJECTIVES:

Electronic voting technology can speed the counting of ballots and can provide
improved accessibility for disabled voters. But some concerns with these machines are trust
worth in ess of both their hardware and their software.

- E-voting provides End-to-end system implementation.
- E-voting system provides secured internet voting dynamically.
- E-voting supports privacy using Digital signature.
- E-voting promotes security using multiple encryptions.

METHODOLOGY:

Internet elections have the prospective of being cheaper and less time consuming.
Voting requires principles like directness, freedom; equality which is difficult to attain by
using traditional voting methods but possible with internet based voting.

1. Digital signature algorithm enables the computation of a public key for an entity, when
   only some general parameter sand a string identifying the entity are given. DSA creates a
   three 20-bitsignature.
2. The DES algorithm is designed to encipher and decipher blocks of data consisting of 64
   bits under the control of 64-bitkey.
3. Algorithms used
   1. Digital Signature Algorithm
   2. Multiple Data Encryption Algorithm
   3. Key Generation Algorithm
   4. Signature Verifying Algorithm
RESULTS AND CONCLUSION:

We will present some of the Screenshots of this project. The only front end interface that will be provided to the end users will be that of SBA’s, whereas the Service end point (SEP) and the frame work will be executing in the backend.

User at the voting ballot will be able to securely cast the vote, view the list of all the elections scheduled and also view the results of the election.

Screenshots at the Voting Ballot

Figure1: Home page of voting ballot

Figure2: Voter registration form
Admin at the voting server will be able to approve or reject the request of the registered voter, schedule a new election or cancel an existing election, add or remove the participants from the elections and view the screenshots of the election.
Screen shots at Voting Server

Figure 9: Results of the election

Figure 10: EC login

Figure 11: Pending requests

Figure 12: Approve/reject the pending request

Figure 13: Scheduling the election
APPLICATION:
We conclude that this system provides security from all types of attacks, when vote is travelling from voting client to voting server from our experimentation. These attacks include security threats from passive as well as active intruders. We can use this system also for taking opinion of employee on certain issues.
This system saves money, time requirement in traditional voting system. Also it is eco-friendly and voids wastage of paper.

FUTURE ENHANCEMENTS:
Future work will focus on integrating this system with biometric authentication of the citizens who will be casting their votes. For authentication of voter instead of USERNAME, if we can use thumb impression of voter or capture photo of his/her face and compare it with photo stored in our database, it will be more secure.