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E-Voting and Presentee Muster Using Raspberry PI 2 Modules

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Abstract: The basis of this project is to create an Electronic Voting Machine that will help to eradicate defrauding of the manual voting Systems by multiple votes cast by the same user. Each voter will be entered into the system through a swift process only after being recognized and checked to the given database of enlisted voters. Once the corresponding fingerprint is matched with the information provided by the Identification Card, The voter will be allowed to vote for their preferred candidate through a panel of buttons. The proposed project also carries the unique feature of being autonomous during the course of operation, which helps to diminish the issue of hacking occurring in previous attempts of Electronic Voting Machines. This machine can be used as a Presentee Muster in Government Office and GRs will be displayed on it.

Keyword: Raspberry pi2 module, camera, Thumb imprecation reader, Screen.

1. INTRODUCTION

The purpose of this document is to present a description of the "E-VOTING AND PRESENTEE MUSTER USING RASPBERRY PI 2 MODULE." It will explain the purpose and features of the system and interfaces the system to voting machine**.** The aim of this document is to gather and analyze and give an in-depth insight of the complete system by defining the problem statement in detail. The main goal of this voting system is to ensure the privacy of the Voters and accuracy of the votes. A secure voting system satisfies the following

Requirements:

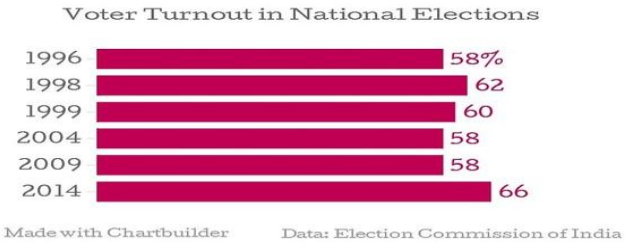
- **Eligibility**: Votes only be legitimate to voters shall be taken into account.
- **Anonymity**: Votes are set secret
- **Accuracy**: Casted ballot cannot be altered. So that, it will not be possible neither to delete ballots nor to add ballots, once the election has been closed.
- **Vote and go**: once a voter has casted his vote, no further action prior to the end of the election.

This system not only reduces the fake votes but stops it. It also reduces the Human efforts while conducting voting. This system is used for Authentication of Voters, Security of voting process; Securing voted data which are the main challenges of voting. Also it is used to have attendance and count of all the employees in the office.

2. LITERATURE SURVEY

In current system, there is tampering of votes and proxy votes are reported, also it takes more time to calculate the votes. Generally in our country, the electronic voting is supervised by the presence of the independent electoral authorities. The specific electronic voting machines are used at polling stations for the voting operation. The votes fed into these machines are counted to arrive at the results.

Following graph shows the voter turnout in National Elections.



We can see that voting percentage from 1996 to 2015 had never crossed 70%. Still 30% of votes are not casted. In current system, fake votes are casted on behalf of absent voters by giving fake sign and voting for the fraud party. As in proposed system there is fingerprint authentication, these fake votes are eliminated.

Also the attendance systems use paper based methods for taking and calculating attendance. This manual method requires paper sheets and a lot of stationery material. Using proposed system this drawbacks will be eliminated. The main users of the Online National Election System are the Voters, Election Candidates, Election Commission Authority and Election Station Supervisors.

3. HOW THE SYSTEM ACTUALLY WORKS

For proper working of this system it goes through the channel that proper channeling is given bellow is in steps format:

- First ballot machine is choosing mode of operation like it works as a voting machine OR presentee muster. Consider voting machine mode is selected for operation.

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- As per choosing of mode of operation the respective database provide is essential. For consider operation Aadhar card database and Voter list database are essential.
- Now voter first put his/her Aadhar card in to the Voter ID Scanner. This scanner will check the code on ID and respective information present on the database unit like- voter name, addresses, biometric data, photo, its ward and respective candidate list for ward etc.
- The Biometric scanner decides the authentication of the voter in this step the present data on database and current data of voter through the scanner going to be matched and decided the true or false condensation.
- The condensation is false then respective voter is said as proxy voter and it not allows for voting.
- The condensation is true then respective voter is said as authenticate voter and it allow for voting.
- Now on the display board the respective candidate list is open, voter put his/her valuable vote to his/her favorite candidate.
- The voting presentee and his/her vote are now stored in to the respective ward database.
- After completion of voting procedure the buzzer on the machine will beep ones. If there is any mistake or fault in it, the buzzer will beep coastally.
- When all process is complete then system goes to tried step. These steps are rotated for new voters.

4. GENERAL INFORMATION

In 21th century the industrial growth of INDIA is very high. As per requirement of Excellence/work the people are migrated from one place to other place. So, Depending on priority of job/work the voter cannot cast his/her vote to respective Candidate resulting they cannot fulfill the voting duty. To overcome this problem the 'E-VOTING AND PRESENTEE MUSTER' is developed by using this system the voter can fulfill of voting duties from any place.

In this project the voters are authenticated by using the two types of identification process that are Voter ID Identification and Fingerprint Identification. This identification information is collected by the AADHAR CARD. Fingerprint identification is the oldest method that has been successfully used in various applications. Each of our ten fingerprints is different from one another and from those of every other person. Even identical twins do not have unique finger-prints. That makes them ideal for personal identification. A fingerprint is made of a series of ridges and furrows on the surface of the finger. The uniqueness of a fingerprint is determined by the pattern of ridges and furrows as well as the minutiae points. Minutiae points are local ridge characteristics that occur when a ridge splits apart or a ridge ends.

The Voter ID card will mainly consist of Aadhar card information of user along with his/her voter identification number. This card is developed by using coded format so that each voter is differs from each other.

At college level we have bar code generated consisting of user's college information such as name, class, branch and unique college identification number. For attendance, the user will first scan the bar code and then will place his/ her finger over the fingerprint device and the user's identification number is sent to the database.

Usages of new technology in the voting process improve the elections in natural. This new technology refers to electronic voting systems where the election data is recorded, stored and processed primarily as digital information.

Authentication of Voters, Security of voting process, Securing voted data are the main challenge of voting. This is the reason why designing a secure voting system is very important. Security is a heart of voting process. Therefore the necessity of designing a secure voting system is very important. Usually, mechanisms that ensure the security and privacy of an election can be time- consuming, expensive for election administrators, and inconvenient for voters.

The criteria are Registration through Administrator, Voter identification and verification process is done through fingerprint scanning.

5. BLOCK DIAGRAM

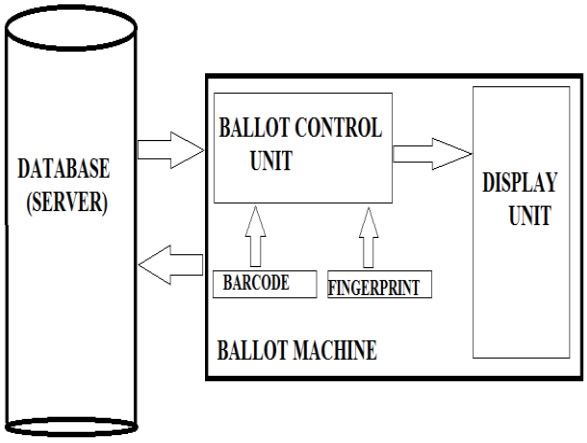

Figure7.1:- Block Re-operation of E-Voting and Presentee muster by using Raspberry pi module

6. BLOCK DIGRAM DISCRIPTION

The above given figure is block representation of this project. In that the BALLOT MACHIN and DATABASE SECTION are the two main elements of our project. In that ballot machine is portable to move any remote place whereas database unit is fixed with cites in INDIA.

3.1. THE BALLOT MACHINE

As per given information of ballot machine this is portable and it is moved from one place to another place. This ballot machine having a following section:

6.1.1. VOTER ID SCANNER:-

This is used to certified identification of the voter which is stored in the database. The current state of voter data and saved database data is compared. By the comparing of data it is moved for next step only when the voter is certified by him. For authentication of voter the voter ID

card having a bar code or quick response (QR) code are used.

Bar code:-
The bar code is an optical machine-readable representation of data relating to the object to which it is attached. Originally bar codes systematically represented data by varying the widths and spacing of parallel lines, and may be referred to a linear or one dimensional. Later they evolved into rectangle, dots, hexagons and other geometric patterns in two dimensions. It can use to store the information by which user can login to the system by just scanning it and giving fingerprint for authentication.

Quick Response (QR) Code:-
QR codes are easily readable bar code that when scanned with a QR decoder can translate the code into a URL, a telephone number, a bit of text, a bit of text, or other data. To generate a specific QR cod, there are plenty of free programs online that take your data and turn it into a custom code to put on a flier, a website, a business card and so on.

6.1.2. **BIOMETRIC SCANNER:-**
The biometric scanner is used to authenticate the person using fingerprint scanner. This fingerprint scanner is comparing the data of stored in Aadhar Card database and current data by the voter. If the given all information is corrected by the fingerprint scanner then voter can vote to the candidate.
The fingerprint reader or scanner is an electronics device that is used to read the finger print. The beam incident on finger, photo diode read the intensity of light rapidly varied brightness with a data pattern. Detected data will finalize with modulated saved data. In the project the presenty and voter authenticate both process can done at a time using fingerprint scanner. So that it implies the increasing accuracy and revolutionary from in voting process.

6.1.3. **Ballot Control Unit:-**
The name itself indicates the working of this unit. The ballot control unit is an Embedded System which is designed by ARM-processor. For controlling ballot Raspberry pi Module is used. This is developed as a minicomputer. The size of this module is ID card size. The feature of the ballot machine is as follows:-

1)14 pin HDMI video resolution that ranges from 650X350 to 1920X1200.
2) BCM 2836 quad-core processor running on a 900 MHz system.
3)1 GB on board memory for bigger and better application
4)40 pin GPIO expand.
5)4 USB ports that can support a number of demanding device.
6) Switching regulator to help conserve power.

6.1.4. **Display unit:-**
The display unit works as a communication bridge in between the user and machine. It shows the instruction for user to work proper and it will show the result for understand the user which operation done by the machine behind the screen. In the ballot machine.

6.2. DATABASE SECTION
A database is a just collection of data where computer are concerned. In the database we can store (save) text document, picture, music, video etc.
The database program is a type of computer software that is designed to handle lots of data, but to store them in a such a way that finding any snippet of data is more efficient than it would have been if we simply dumped them willy Nelly all over the place. With such database software, if we keep a list of voter/ candidate/ worker/customers and their respective information
For storing a data in this we use the MySQL database. For commercial database system require a query language that is more user friendly. The MySQL is nothing but Structured Query Language which is a most influential commercially marketed query language. MySQL use combination of relational algebra and relational calculus constructs. It can define the structure of data, modify data in the database, and specify security constraints.
To work proper effincy and high equality of the system the system management is designed for the database ‘database management system ‘is used the management system is total database can segregate as per the requirements of the development for project and put a proper communication in system and data. It is also put the maintence of the data.
The whole operation of the system is observed by the ‘System Administer’. He has an authority to add and/or delete the voter and/or candidate and /or workers in the database. The result of each operation is stored in it. This whole database is maintained by the ‘database management system’. The result of the voting and/or presentee, administer can seen on his desktop.
This database is located in each city for storage of Aadhar card information and all these databases are connected in mesh topology for networking.

7. HARDWARE IMPLEMENTATION

In this project we use the hard ware device which are implemented over here the required device and general information of that component is given below

7.1. Raspberry pi2 module:-
The introduction of Raspberry Pi 2 module has brought revolutionary change in the electronic industry. It is the latest module which entered the market in July 2015, As this module can be used without any additional hardware (except perhaps a power supply of some kind), it won't be much used as a general computer. As with any normal PC.

The following are more or less essential hardware:
- Raspberry Pi 2 board
- Prepared Operating System SD Card
- USB keyboard
- Display (with HDMI, DVI, Composite or SCART input)
- Power Supply
- Cables

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Raspberry Pi 2 has a processor chip that is more powerful than all the Pi 1 models including the B+ model, which preceded it. The latest processor is a **BCM2836** 900 megahertz chip. It is a quad-core chip, unlike all the models that preceded it which were single core.
The other main difference is the memory. The Pi 1 models had 512 kilobytes or less of memory. The new device has a 1 GB board memory, which is double the rating of the Pi 1 B+ model, which had a 512 kilobyte RAM. Despite the differences, the Pi 2 is similar to the previous model in a number of ways. The manufacturers wanted to keep the size, weight and dimension of the original. It is the same 'credit card size computer' but with better features and performance. There were advantages of maintaining some of the similarities. It was important to maintain backward compatibility with the previous versions. This would make old tutorials useful to those who owned the current version of the Raspberry for the new chip to work. Major changes could also make the new version completely different.
After several tests, The **BCM2836** 900 megahertz chip was the best version that came up, which addressed all these issues. Just like the previous models, it doesn't have a heat sink or fan. It does not need cooling, unless it is over clocked. Many of the input features remained the same, with only a few modifications to improve performance. Therefore, if you had any of the previous models, getting started with the Pi 2 is going to be much easier.

The Unique Features:
The following is summary of unique features of the Pi 2:

- 14 HDMI video resolutions that ranges from 650x350 to 1920x1200.
- BCM2836 quad-core processor running on a 900 Mega Hertz system.
- 1 GB on board memory for bigger and better applications.
- 40 Pin GPIO to expand.
- Similar layout and Foot print to model B+.
- The only model with a 10/100 Ethernet port for internet connectivity.
- 4 USB ports that can support a number of demanding devices.
- Switching regulators to help conserve power.

Raspberry PI 2 module is available in different models like model A, model A^+, MODEL B, Model B^+. As per the above features we are using the model B which is suitable for this project. Picture representation of the Raspberry PI 2 module Model B is as shown below

7.2. CAMERA INTERFACE

The camera module used in this project is RPI NOIR CAMERA BOARD i.e. Raspberry Pi No IR camera board as shown in the Figure 3. The camera plugs directly into the CSI connector on the Raspberry Pi. It's able to deliver clear 5MP resolution image, or 1080p HD video recording at 30fps. The module attaches to Raspberry Pi, by way of a 15 pin Ribbon Cable, to the dedicated 15 pin MIPI Camera Serial Interface (CSI), which was designed especially for interfacing to cameras. The CSI bus is capable of extremely high data rates, and it exclusively carries pixel data to the BCM2835 processor.
This camera board which has no infrared filter making it perfect for taking infrared photographs or photographing objects in low light (twilight) conditions. Other features of this camera board are Automatic image control functions; Programmable controls for frame rate 32 bytes of embedded one time programmable (OTP) memory and Digital video port
(DVP) parallel output interface Excellent.

In our project digital camera is used as an ID Scanner. In the Aadhar card systems the person identification is done by Bar coded format and/or QR code format, to identify the code formats related scanners are used whether Barcode or the QR code scanners, This increases the cost and complexity of the system, So to overcome the limitations of these formats we are using the digital camera which scan both the Bar code and QR code formats. The Raspberry Pi Camera Module is a custom designed add-on for Raspberry Pi.

7.3. Fingerprint scanner:-

The fingerprint reader or scanner is an electronics device that is used to read the finger print. The beam incident on finger, photo diode read the intensity of light rapidly varied brightness with a data pattern. Detected data will finelise with modulated saved data.
By using this scanner we can bring remarkable change in the identification and verification of the voter, immediately on the spot. Proxy voting can be prohibited; this will give the accuracy in voting. We are going to have the records of voters through Aadhar Card which acts as database to the system this helps the scanner for verification of the voter.

Working of Finger Print Scanner:-
Finger Print Scanner works for identification and/or verification of the voters. The current data of the vote is taken by the finger print scanner in the ballot machine, and

then the data from the ballot machine is collected and matched to the Aadhar Card database system.

7.4. Buzzer

Piezo buzzer is an electronic device commonly used to produce sound. Light weight, simple construction and low price make it usable in various applications like car/truck reversing indicator, computers, call bells etc. Piezo buzzer is based on the inverse principle of piezo electricity discovered in 1880 by Jacques and Pierre Curie. It is the phenomena of generating electricity when mechanical pressure is applied to certain materials and the vice versa is also true. Such materials are called piezo electric materials. Piezo electric materials are either naturally available or manmade. Piezoceramic is class of manmade material, which poses piezo electric effect and is widely used to make disc, the heart of piezo buzzer. When subjected to an alternating electric field they stretch or compress, in accordance with the frequency of the signal thereby producing sound. Bells etc.

In this project this piezo electric buzzer carries its duties for verification process where if the verification is false then it gives continuous alarm and if the verification is true then it gives just a beep as a sign of completion of the voting process of the individual. In this way the buzzer is utilized efficiently.

8. SOFTWARE IMPLEMENTION

8.1. Python:

Python is a widely used general-purpose, high-level programming language. Its design philosophy emphasizes code readability, and its syntax allows programmers to express concepts in fewer lines of code that would be possible in languages such as C++ or Java. The language provides constructs intended to enable clear programs on both a small and large scale.

Python supports multiple programming paradigms, including object-oriented, imperative and functional programming or procedural styles. It has a large and comprehensive standard library.

Features of Python:-

- **Simple**

Python is a simple and minimalistic language. Reading a good Python program feels almost like reading English, although very strict English! This pseudo-code nature of Python is one of its greatest strengths. It allows you to concentrate on the solution to the problem rather than the language itself.

- **Easy to Learn**

Python is extremely easy to get started with. Python has an extraordinarily simple syntax, as already mentioned.

- **Free and Open Source**

Python is an example of a FLOSS (Free/LibrÃ© and Open Source Software). In simple terms, you can freely distribute copies of this software, read its source code, make changes to it, use pieces of it in new free programs, and that you know you can do these things. FLOSS is based on the concept of a community which shares knowledge. This is one of the reasons why Python is so good - it has been created and is constantly improved by a community who just want to see a better Python.

- **High-level Language**

When you write programs in Python, you never need to bother about the low-level details such as managing the memory used by your program, etc.

- **Portable**

Due to its open-source nature, Python has been ported (i.e. changed to make it work on) to many platforms. All your Python programs can work on any of these platforms without requiring any changes at all if you are careful enough to avoid any system-dependent features.

- **Interpreted**

A program written in a compiled language like C or C++ is converted from the source language i.e. C or C++ into a language that is spoken by your computer (binary code i.e. 0s and 1s) using a compiler with various flags and options. When you run the program, the linker/loader software copies the program from hard disk to memory and starts running it.

Python, on the other hand, does not need compilation to binary. You just run the program directly from the source code. Internally, Python converts the source code into an intermediate form called byte codes and then translates this into the native language of your computer and then runs it.

All this, actually, makes using Python much easier since you don't have to worry about compiling the program, making sure that the proper libraries are linked and loaded, etc, etc. This also makes your Python programs much more portable, since you can just copy your Python program onto another computer and it just works.

- **Object Oriented**

Python supports procedure-oriented programming as well as object-oriented programming. In procedure-oriented languages, the program is built around procedures or functions which are nothing but reusable pieces of programs. In object-oriented languages, the program is built around objects which combine data and functionality. Python has a very powerful but simplistic way of doing OOP, especially when compared to big languages like C++ or Java.

Looking to the features of the Python we are using this in our project as our main programming language which enhances the software built up of our project.

8.2. OpenCV:

Computer vision is a rapidly growing field, partly as a result of both cheaper and more capable cameras, partly because of affordable processing power, and partly because vision algorithms are starting to mature. OpenCV itself has played a role in the growth of computer vision by enabling thousands of people to do more productive work in vision. With its focus on real-time vision, OpenCV helps students and professionals efficiently implement projects and jump-start research by providing them with a

computer vision and machine learning infrastructure that was previously available only in a few mature research labs.

OpenCV [OpenCV] is an open source computer vision library available from http://SourceForge.net/projects/opencvlibrary. The library is written in C and C++ and runs under Linux, Windows and Mac OS X. There is active development on interfaces for Python, Ruby, Matlab, and other languages.

OpenCV was designed for computational efficiency and with a strong focus on real-time applications. OpenCV is written in optimized C and can take advantage of multicourse processors. If you desire further automatic optimization on Intel architectures (Intel), you can buy Intel's Integrated Performance Primitives (IPP) libraries, which consist of low-level optimized routines in many different algorithmic areas.

OpenCV automatically uses the appropriate IPP library at runtime if that library is installed. One of OpenCV's goals is to provide a simple-to-use computer vision infrastructure that helps people build fairly sophisticated vision applications quickly. The OpenCV library contains over 500 functions that span many areas in vision, including factory product inspection, medical imaging, security, user interface, camera calibration, stereo vision, and robotics. Because computer vision and machine learning of en go hand-in hand, OpenCV also contains a full, general-purpose Machine Learning Library (MLL). This sub library is focused on statistical pattern recognition and clustering. The MLL is highly useful for the vision tasks that are at the core of OpenCV's mission, but it is general enough to be used for any machine learning problem.

Feature of open CV

- Better document OpenCV—detail what function calling conventions really mean and how to use them correctly.
- Rapidly give the reader an intuitive understanding of how the vision algorithms work.
- Give the reader some sense of what algorithm to use and when to use it.
- Give the reader a boost in implementing computer vision and machine learning algorithms by providing many working coded examples to start from.
- Provide intuitions about how to fix some of the more advanced routines when something goes wrong.

8.3. MySQL:

MySQL is the world's second most widely used relational database management system (RDBMS) and most widely used open-source RDBMS. The following list describes some of the important Features of MySQL Database Software.

Commercial database system requires a query language that is more user friendly. Structured Query Language (SQL) is a most influential commercially marketed query language SQL use combination of relation algebra and relational calculus. It can define the structure of data, modify data in the database, and specify security constraints.

Feature of SQL:-

- Data definition language (DDL):

The SQL DDL provides commands for defining relation schemes, deleting relation creating indices and modifying relation schemes.

- Interactive Data Manipulation Language (DML):

The SQL DML includes a query language based on both the relation algebra and the tuple relational calculus. It includes also commands to insert, delete and modify tuples in the database

- Embedded Data Manipulation Language:

The embedded form of SQL is designed for use within general-purpose programming language such as PL/I, COBOL, Pascal, FORTRAN and C

- Authorization:

The SQL DDL includes commands for specifying access rights to relation and views.

- Integrity:

The original system R sequel language includes for specifying complex integrity constraints. Newer versions of SQL, including the ANSI standard, provide only a limited form of integrity checking. Future product and standards are likely to include enhanced feature for integrity checking.

- Transaction control:

SQL includes commands for specifying the beginning and ending of transactions several implementations, including IBM SAA-SQL, allow explicit locking of data for concurrency control.

8.4. POSTGRESQL

PostgreSQL, often simply "Postgres", is an object-relational database management system which is used along with an emphasis on extensibility and standards-compliance. As a database server, its primary function is to store data securely in the raspberry pi, supporting best practices, and to allow for retrieval at the request of other software applications like PHP. It can handle workloads ranging from small machine applications to large Internet facing applications with many concurrent users even through the terminal in the raspberry pi server. Recent versions also provide replication of the database itself for availability and scalability in both windows and Linux

8.5. PHP

PHP is a server-side scripting language designed for web development but also used as a general-purpose programming language which is been used in the project. As of January 2013, PHP was installed on more than 240 million websites (39% of those sampled) and 2.1 million web servers. Originally created by Rasmus Lerdorf in 1994, the reference implementation of PHP (powered by the Zend Engine) is now produced by The PHP Group.[6] While PHP originally stood for Personal Home Page, it now stands for PHP: Hypertext Preprocessor. This is been used to display the information's of workers in the monitor.

8.6. Secure Sockets Layer (SSL): Understanding SSL

Regardless of where you access the Internet from, the connection between your Web browser and any other point can be routed through dozens of independent systems. Through snooping, spoofing, and other forms of Internet eavesdropping, unauthorized people can steal credit card numbers, PIN numbers, personal data, and other confidential information.

The Secure Sockets Layer (SSL) protocol was developed to transfer information privately and securely across the Internet. SSL is layered beneath application protocols such as HTTP, SMTP, and FTP and above the connection protocol TCP/IP. It is used by the HTTPS access method.

Transport Layer Security (TLS) is the successor of Secure Sockets Layer (SSL); they are both cryptographic protocols that provide secure communications on the Internet for such things as web browsing, e-mail, Internet faxing, instant messaging, and other data transfers. There are slight differences between SSL and TLS, but the protocol remains substantially the same.

How It Works

When a client and server communicate, SSL ensures that the connection is private and secure by providing authentication, encryption, and integrity checks. Authentication confirms that the server, and optionally the client, is who they say they are. Encryption through a key-exchange then creates a secure "tunnel" between the two that prevents any unauthorized system from reading the data. Integrity checks guarantee that any unauthorized system cannot modify the encrypted stream without being detected. The secure tunnel that SSL creates is an encrypted connection that ensures that all information sent between an SSL-enabled client and an SSL-enabled server remains private. SSL also provides a mechanism for detecting if someone has altered the data in transit. This is done with the help of message integrity checks. These message integrity checks ensure that the connection is reliable. If, at any point during a transmission, SSL detects that a connection is not secure, terminates the connection and the client and server establish new secure connection.

Balancing User Performance and User Privacy

Using an SSL proxy to manage encrypted traffic can remove a significant network blind spot. Yet by inspecting the traffic, the explicit trust model of SSL comes into question; SSL is, after all, deployed to ensure that the traffic is private during transit.

Certain situations require more care and consideration. For example, employees may be allowed to connect to secure web brokerages to manage their corporate compensation plans, or to health insurance sites to schedule confidential doctors visits. Partners and other invited guests connecting back to their own offices may access confidential materials under the expectation of secrecy. Depending on your jurisdiction, respecting the privacy of such communication may be more than a policy – it may be the law. Therefore, when deploying an SSL proxy organizations have three options with respect to balancing optimization needs and privacy requirements.

8.7. Hypertext Transfer Protocol (HTTP):

The Hypertext Transfer Protocol (HTTP) is an application-level protocol for distributed, collaborative, hypermedia information systems. It is a generic, stateless, protocol which can be used for many tasks beyond its use for hypertext, such as name servers and distributed object management systems, through extension of its request methods, error codes and headers. A feature of HTTP is the typing and negotiation of data representation, allowing systems to be built independently of the data being transferred. HTTP has been in use by the World-Wide Web global information initiative since 1990. This specification defines the protocol referred to as "HTTP/1.1", and is an update to RFC 2068.

The Hypertext Transfer Protocol (HTTP) is an application-level protocol for distributed, collaborative, hypermedia information systems. HTTP has been in use by the World-Wide Web global information initiative since 1990. The first version of HTTP, referred to as HTTP/0.9, was a simple protocol for raw data transfer across the Internet. HTTP/1.0, as defined by RFC 1945 , improved the protocol by allowing messages to be in the format of MIME like messages, containing meta information about the data transferred and modifiers on the request/response semantics. However, HTTP/1.0 does not sufficiently take into consideration the effects of hierarchical proxies, caching, the need for persistent connections, or virtual hosts. In addition, the proliferation of incompletely implemented applications calling themselves "HTTP/1.0" has necessitated a protocol version change in order for two communicating applications to determine each other's true capabilities. This specification defines the protocol referred to as "HTTP/1.1". This protocol includes more stringent requirements than HTTP/1.0 in order to ensure reliable implementation of its features. Practical information systems require more functionality than simple retrieval, including search, front-end update, and annotation. HTTP allows an open-ended set of methods and headers that indicate the purpose of a request. It builds on the discipline of reference provided by the Uniform Resource Identifier (URI), as a location (URL) or name (URN), for indicating the resource to which a method is to be applied. Messages are passed in a format similar to that used by Internet mail as defined by the Multipurpose Internet Mail Extensions (MIME).

HTTP is also used as a generic protocol for communication between user agents and proxies/gateways to other Internet systems, including those supported by the SMTP, NNTP, FTP, Gophe, and WAIS protocols. In this way, HTTP allows basic hypermedia access to resources available from diverse application

9. PRESENTEE MUSTERS WORKING

The above system is work as a Presentee muster in the various sectors as like offices, in collage, banks etc. in this mode of operation the works (in college student also considered) are provide the ID card with have code on it.

This muster is having the database as per changing sectors of workers. In that database, administer is stored the information like – Name, Addresses, Biometric data,

Phone number, photo etc. Hear this system is protected by the ssl codes, http protocol. By using this system the administer put watch up on them from any branch (if present) at any time.

The presentee muster is work as bellow:

- First ballot machine is choosing mode of operation like it works as a voting machine OR presentee muster. Consider presentee muster mode is selected for operation.
- As per choosing of mode of operation the respective database provide is essential. For consider operation database of their sector is essential.
- Now works first put his/her ID card in to the Voter ID Scanner. This scanner is check the code on ID and respective information present on the database unit like- name, addresses, biometric data, photo, phone number etc.
- The Biometric scanner is decides the authentication of the workers in this step the present data on database and current data of workers through the scanner going to be matched and decided the true or false condensation.
- The condensation is false then respective workers are said as proxy person and it not allows for presenty.
- The condensation is true then a respective worker is said as authenticate voter and it allow for presenty.
- The presenty of workers is now stored in to the respective database.
- After completion of voting procedure the buzzer on the machine will beep ones. If there is any mistake or fault in it, the buzzer will beep coastally.
- When all process is complete then system goes to tried step. These step loops are rotated as per voter changes.

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