

# DESIGN AND IMPLEMENTATION OF SECURITY MAIL SERVICES IN INTRANET

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*Abstract*— The Intranet Mailing System is relevant within an organization only. In this fast growing world where every qualified person is in urgent need of a job, they join places, working at odd times. The organization has shift times and it becomes complex for an employee of the shift to communicate with another employee of a different shift. In these circumstances the Intranet Mailing System proves its worth; if the organization has an Intranet Mailing System facility available to all its employees then each employee can register himself and send mails to any other registered employee and thus making the communication easier.

**Keywords**—Intranet Mailing, SNMP, SecuIntranet

## I. INTRODUCTION

The Internet, which is a distributed and open system, provides access to diversified information created by various organizations and individuals and is geographically distributed worldwide. The Internet, a hypermedia system, is commonly used as the first source of information because downloading text, audio and graphical information is so convenient. Corporate intranet users need to develop systems to share information in virtual space through the Internet without risking the security and integrity of their data. Many

enterprises share and reuse information through the intranet. However, the intranet systems, which provide many types of service, need to incorporate solutions for security and access control [5, 6, 8]. In order to provide this type of corporate system, the Basic Support Cooperative Work (BSCW) system and Domino system have been developed [9] and integrated into a new model and system called SecuIntranet. Currently, most enterprise intranet systems process user information for security and access authentication. However, unauthorized users often capture this information and may edit, modify, delete or otherwise corrupt this data. Additionally, corruption can result from inaccurate communication protocols in the web browser. Therefore, a method is needed to prevent unauthorized or erroneous access and modification of data through the intranet. This paper proposes an efficient security procedure that incorporates a new model and allows flexible web security access control in securing information over the intranet. The proposed web security access control system improves the intranet data and access security by using encryption and decryption techniques. It further improves the security access control by providing authentication corresponding to different security page levels relevant to public ownership and information sensitivity between different enterprise departments. This approach also prevents information leakage and corruption by mistakes that may occur as a result of communication protocol errors between client PC's or mail security methods. The SecuIntranet method

encodes web pages whenever the client request intranet server information. This encoding model is not an external program. To save processing time, this method utilizes API for encoding processes and ActiveX control for decoding processes. Installation of these encryption and decryption programs on the existing web system is required for implementation and use.

### I. LITERATURE SURVEY

E-mail has been characterized as a “promising means for conducting future surveys” (Schaefer and Dillman, 1998), and numerous researchers have recognized the benefits that e-mail provides over postal mail. These benefits include cost savings from elimination or reduction of paper costs and mailing costs (Parker, 1992) and the rapid speed of response (Bachmann, Elfrink and Vazzana, 1996; Mehta and Sivadas, 1995).

In fact, a consistent finding of the studies that compare response speeds of surveys delivered via e-mail and postal mail is that e-mail responses are returned much more quickly than postal mail responses (Bachmann, Elfrink and Vazzana, 1996; Kiesler and Sproull, 1986; Schaefer and Dillman, 1998; Weible and Wallace, 1998). In these studies, e-mail response speeds ranged from five to ten days, compared to the response speed of postal mail surveys, which ranged from ten to fifteen days. Response rates to e-mail surveys, however, do not consistently show benefits over postal mail, and in some cases fall below what may be seen as acceptable levels of response.

Kiesler and Sproull (1986) and Parker (1992) shows e-mail response rates of over all 65 percent, with both studies showing e-mail response rates significantly higher than the comparable postal mail method. Schaeffer and Dillman (1998) and Mehta and Sivadas (1996) start no significant differences in response rates between the two modes. Several other studies (e.g. Schuldt and Totten, 1994; Tse et al, 1995; Weible and Wallace, 1998) start that e-mail response rates were lower

than those of postal mail. Response rates for e-mail surveys vary from a low of 6 percent (Tse et al, 1995) to a high of 75 percent (Kiesler and Sproull, 1986). These differences in response rates are not surprising given what is known about response effects in postal mail surveys. The studies shown in Table 1 have homogeneous samples, small sample sizes, and diverse survey topics. The types of sample populations are either employees of a single company (used in two studies) or University professors and Deans (used in five studies), with only one study consisting of a sample of Internet users (Mehta and Sivadas, 1995). Survey topics ranged from corporate and Internet communication to business ethics and TQM. Given the lack of consistency in numerous variables in these studies, the range of response rates and speeds is understandable.

### II. EXISTING SYSTEM

In existing system, information between employees is passed as follows. If any Employee has to pass any information to any other employee then he has to pass the message by any person (office boy) or by calling him (phone). If the employee is not available at that moment so he can't get the information. If he forgets to pass the message then the other employee won't get the information that might be important. Intranet mailing system is used for Local Area Networking like an Organization. Using Intranet mailing system we can eliminate such kind of problem. In this mailing system whenever employee opens his inbox he gets the message send by the other employee.

### III. PROPOSED SYSTEM

ARPANET called as backbone network because it was the central WAN that tied researches together. They interconnected LAN and WAN that became Internet Work(www), during late 1990s. Now called Internet. And used uniform rules that allowed uploading and downloading

files (FTP), search, send electronic mail between computers (SMTP) etc. Intranet is a network based on the Internet that is accessed by the employees of an organization. An Intranet provides easy access to internal files and documents to the various employees of the organization, from their individual workstations. It also contributes to a paperless office. And Cipher mail used to receive the Acknowledgement from receiver automatically. Once the read message will be deleted automatically at close the mail from receiver. Not allowed to forward the messages. Sender can access delete the wrong sent messages to receiver inbox from their sent item folder.

#### IV. BLOCK DIAGRAM

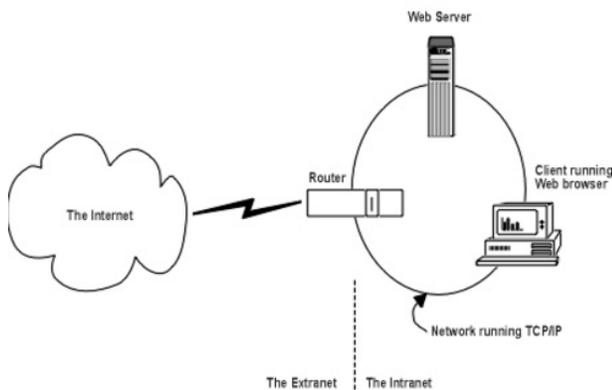
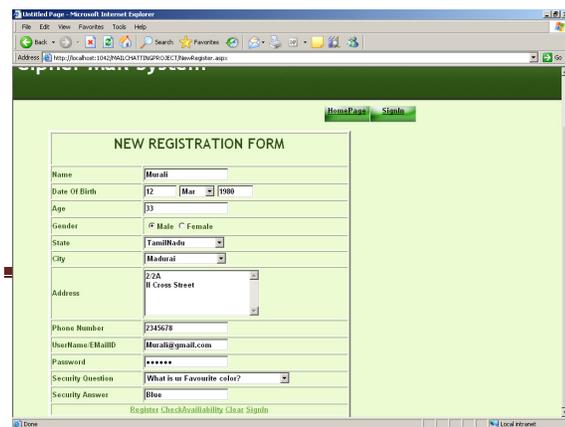


Fig.1 Block Diagram

#### V. MODULE DESCRIPTION

##### REGISTRATION

In this module a new user is made to register with a unique user name, password and his custom mailed and mobile number for the service. A confirmation message is sent to the mailed provided by that user. The purpose of this module is to check whether the mail ID belongs to that



particular user actually or not as someone else can masquerade.

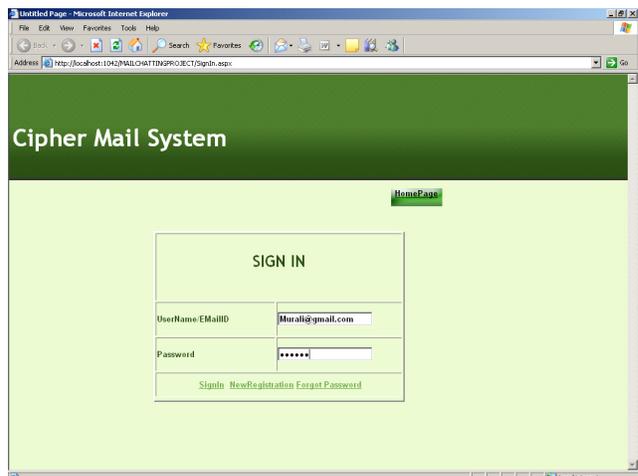
##### LOGIN

In this module an existing user is directed to the home page from he can login. The user needs to enter a valid username and password and then submit it. The Login Page retrieves corresponding information from user info and authenticates the user. If valid a new session is started and the user is logged in and redirected to the mail client else if there is a mismatch the user is notified with an error message.

##### NOTIFICATION

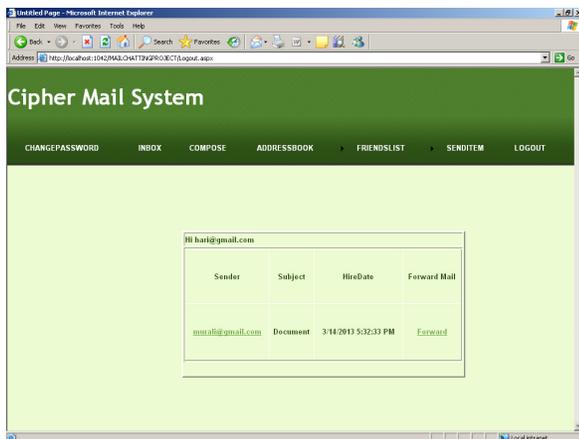
In this module the user is in the client where he can enter the message inside a Rich-text box and also specify the address of the smtp server he is going to use and if a Proxy connection exists, then the host name and port number along with the Destination address and subject.

Finally the user selects the features he wants to apply



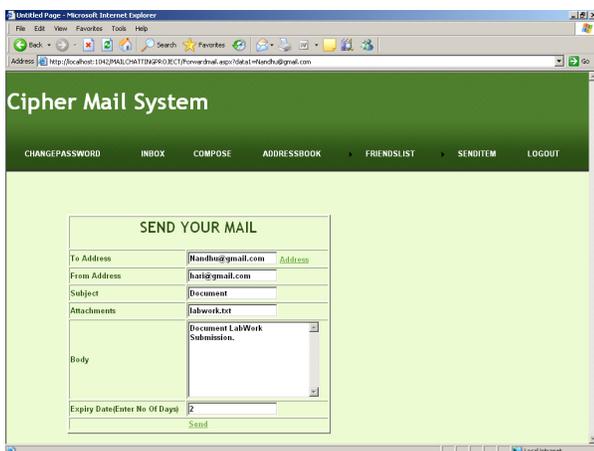
and then fires the send button. This program stores the actual mail message into the database and sends a hyperlink with some message to the destination. If destination address is

invalid or not reachable then a message is returned to the client. When the receiver opens his inbox, he can view this message with the hyperlink stating that only if he clicks on this link the message can be viewed. When the viewer clicks, his system date, time, o/s, browser type, ip Address, referrer, mail program, etc.



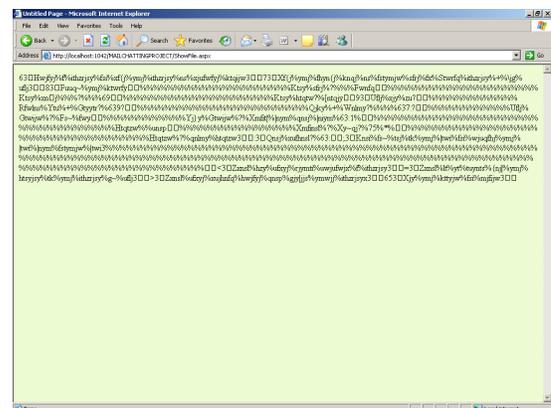
### SELF DESTRUCTIBLE

In this module the main aim is to prevent archiving of the actual mail message into a Custom folder in the receiver's mailbox. At the time of sending the mail with this feature, the user is asked for expiry date. The message automatically expires from the Server database on that date. The validity date starts from the date of sending the mail.



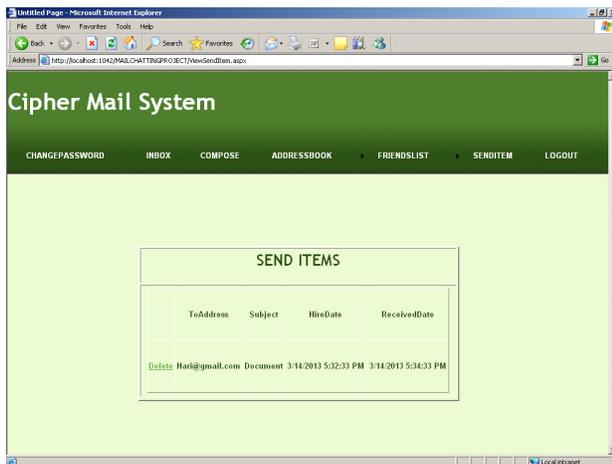
### BLOCK BACK UP

This module is similar to the above one except for the fact that it is used to prevent the Receiver to take a backup locally to his hard drive, rather than archiving it into the Mailbox folder. The receiver is literally handicapped from printing, saving or copying the contents to his hard drive. This is again done by Block-Backup's JavaScript, applies certain properties to the page such that the text cannot be selected to prevent copying. To prevent saving, the contents are displayed in a new window which when saved only saves the original server page that opened it.



### RETRACTABLE

This module aims at deleting the mails even after sending it. This is possible because the mail resides actually in the cipher mail server. The process of retracting is to send a Command RETRACT followed by a space and the message id of the message the user wishes to delete, from the mail client to the same address as he sent it originally. If found the request is forwarded. Which then verifies the matching of the



details provided with the use\_store mail Table and if matches then deletes the message and places a flag in one of the Fields.

### BLOCK FORWARDING

This is the best and very important module of this project. When a user intends to send this mail to only one person and doesn't wish that no one else can access the Contents then he can choose this functionality. This is done by a concept called Cross-Site-Scripting (Xss) or Cookie Hijacking. The Fact that all mail servers store a cookie on the user's machine with the email in it either As it is or encrypted.

### VI. RESULT AND DISCUSSION

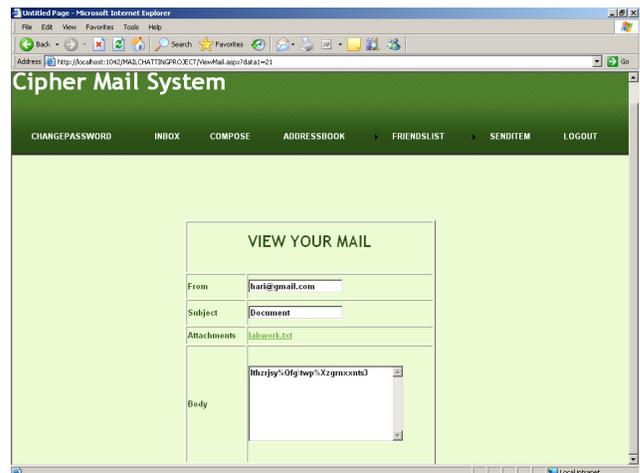
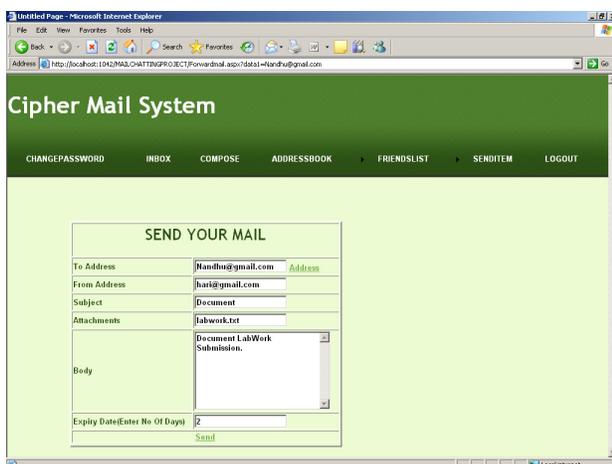


Fig 2. Result

### CONCLUSION

Thus we have completed the project with the entire module neatly and user friendly one. Thus this project will survive best among the users and provide them a best way to interact through the net.

A Pacific Blue Technologies Organization Communicates the employees using this mail server system. If it is manual system. It takes the lot of time and information may or may not Be Passed accurate person. Employees are wasted time to clarifying doubts. So over come these things. We have to need computerization. It is Client/Server System. It contains a server and multiple clients, which connect to the server to send or receive mails.

The system maintains mails sent by other client and store them in their respective mail boxes at server side. It uses the uses SMTP and POP3 protocols. SMTP protocol allows clients to send mails to other user of SMTP server. To retrieve the mails received a client uses POP3 protocol. The System increases the speed and Accuracy to passing the information

among the departments. Project aims at establishing interdepartmental communication for the smooth functioning of the organization.

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