

# Secured and Traffic Free Intranet Mail Service for Kare Using Enhanced Cryptography Technique

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**Abstract:** This Work is proposed with a block design of Mailing Service System. The Concept of this topic is to make the Mailing System in a Smarter Manner. The idea is to create a Mail application that can be used within an organization and for the organization. The mail service is based on the cryptography technique. Cryptography is used to encrypt and decrypt the data that has been sent and received. The major features or the Modules that has been created are the sender gets notified whether received the mail or not. The second is that the mail that has been sent can't be deleted by the receiver, while sending the mail the sender attaches the time of deletion of the mail. The third is that as we have used forward blocking because the received mail can't able to forward any other rather than the Privileged person to access the mail. The fourth is Retractable Mails aim at providing a means by which a sender can delete a particular mail even after sending it. The Block- backup feature provides a means of preventing printing, saving and copying the mail contents. The general feature is each user has the facility of creating account and changing the password. The use of this cryptography is to protect the data from unauthorized person from outer world. Here we use the software called VISUAL STUDIO 2010 as front-end screen and also C# as the back end source.

**Keywords:** Mail System, Cryptography, Re-traceable Mail, Block-backup, Notified, Visual Studio 2010, C#.

## 1. Introduction

The idea of the topic is to create a mail based service over intranet. We generally use mail to send and receive mail in the form of text, images, documents and videos etc., now-a-days the use of mail has been increased huge rapid rather than sending it through post or via other communication devices. When there is a huge use of any system either internet or offline, there leads to any traffic.

The traffic control can't resolve so easily. So we took a small portion of internet service where most of the people prefer is Mail service system. As we said mail utilization has been grown fast, the higher use lowers the security.

We also have been researched this concept in some areas by

referring the Existing systems and also the Journal paper published in the Topic "Secured and Traffic Free Intranet Mail Service for Kare Using Enhanced Cryptography Technique". As we have seen many beautiful concepts around the globe with different concepts on the same topics. When there is a concept there could be an error which has to be corrected, we have seen some concepts as follows:

1. Global mail service System
2. Internet Services
3. Security

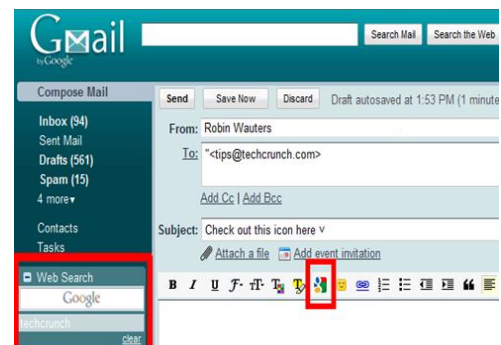


Fig. 1. A view of mail compose

## 2. Literature survey

As we know that generally now-a-days people prefer smart gadgets and wish to apply the same in the real life too. For example, people prefer to use Smart Phone frequently. So from their morning they use Internet to till night. The survey has been done based on the Current Affair in Technologies around the Globe. So we considered to do this project to use it in an area is the Organization. There may be many Multiple Connectivity but we prefer and try to apply the Local Area Network.

## A. Goals

### 1) To work efficiency

The mail that has to be send should make the sender in an efficient manner. It should make the Server in a comfort zone.

### 2) To make it convenient for people who have limited time

This works as Sender who has to send multiple mails in a short time to the people to get a response as they need to complete the work. In case of large internet, since multiple accesses it there leads to time delay so we have to reduce the time delay.

### 3) Mail with security

For a normal mail there is no need of the security but when it comes to an organization there maybe high Confidential message that's to be sent. To make the message confidential we provide security.

### 4) Data security

The mail that has been sent has to be sent should be confidential. It should not make the receiver to misuse the data. So provide with non-backup mail.

## 3. Existing system

The existing system we have done in this project has two ways,

The existing system in general also has the Following ways:

- The existing system that makes easier is to send the messages through posts or couriers.
- This makes the work easier to send the message and in efficient manner.
- But here also it takes more time to travel to a particular distance even for small messages.

The existing system using Internet has the Following ways:

- We can send the mail in a short span of time.
- Instead of going to a place to acknowledge we can send the message from the place where we are using intranet.
- We can able to send the mail to multiple people in a time with integrity.
- But there is no surety of safe of data that has been sent.
- Without viewing the mail, the receiver can delete the mail.
- That can have downloaded and also can be forward the mail.

## 4. Issues in existing system

There are multiple issues that are found in the Existing System:

- Sender can't able to view whether the receiver has received the mail or not.
- The data are not secured as there is a back-up options.
- The data can be forwarded.
- The received mail can be deleted without viewing the mail.
- High traffic issues as same server been used by many people globally.

## 5. Proposed system

- 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.
- We make this project to overcome the issues in the existing system to make a peaceful environment.
- The following are the proposed system:
  1. Registration
  2. login
  3. Compose Mail
  4. Notification
  5. Auto Deletion
  6. Retraceable
  7. Block Back-up
  8. Block Forwarding

### 1) Registration

Registration is done as usual that is been used in the normal E-mail Services. This is used to create a account for the user of the Organization.

### 2) Login

Login Module is used to login and prevent from the unknown person access. Authenticates the user.

### 3) Compose Mail

The sender can able to send the mail within the organization with high speed of access and along with documents, file and images or any multimedia if they want to attach it with.

### 4) Notification

Notification allows notifying whether the user or the client in the Organization has received the mail and has viewed or not. This helps the Sender to know about the Receiver's status about the mail.

### 5) Auto Deletion

The sent messages are deleted automatically as the sender specifies the time about the mail auto-deletion time. This helps for specifying about the timeline of the mail or for example the Assignment time or the Project time.

### 6) Block Backup

In order to prevent data privacy, the mail that is been sent are set by a block backup options as the mail are secured as the receiver can't be able to save the data.

### 7) Re-traceable

Re-traceable helps the sender to delete the sent mail even after sending the mail. This is so because if the sender sent mail to another person by mistake. He can do it.

### 8) Block Forwarding

Block Forwarding is one best way to secure data. This is so because the mail sent between two secure organization and sectors maybe confidential.

## 6. Methodology

For this we go with cryptography technique:

**1) Cryptography Technique**

The idea of this project is to provide a secure and less traffic mail service system as to provide secure we go for encryption. As we all know that Cryptography is based on the encrypt and decrypt the message.

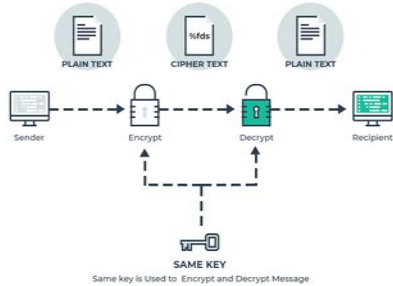


Fig. 2. General illustration of cryptography

**2) Traffic free**

Traffic free is the general concept in networking in case of this Project we are going to provide it in an intranet: *Intranet:* Intranet is a type of network that has been working under LAN (Local Area Network). When we provide intranet the chance of access the mail will be high and speed instead of using an internet of high speed internet services.

**7. Modules description**

Since it is purely internet and system oriented we go for the software modules.

**1) Visual Studio 2010**

- This is the platform where we are going to create our application.
- Here we are going to enter the language to create a web application and connect our process in the database.
- This also consists of multimedia toolbox for adding the tools required such as text box, checkbox, buttons etc.,

**2) Asp.net**

- .net is the language used for creating our application

**3) Microsoft Access**

- MS-Access is the database source used.
- Here the database is used to communicate with the application for the code that we needed.

**4) Internet explorer**

Internet explorer is the browser to view the mail application. Since it is being an updated version of today's internet we can able to view and access the mail efficiently.

**8. Algorithm**

Here since we deal with components for the implementations the Algorithm is explained in a step-by-step process.

As we have already seen in the Block Diagram it is same now:

Algorithm used while sending the mail

*Step 1:* Click compose mail button.

*Step 2:* Enter the receiver mail address.

*Step 3:* Enter the theme of the mail.

*Step 4:* Enter the message.

*Step 5:* If you want to attach files attach it along with the message in the message section.

*Step 6:* In case of confidential mail attach a security code with the mail and make the mail as encrypted mail.

Algorithm used while receiving the mail

*Step 1:* Open the mail.

*Step 2:* Click the received mail.

*Step 3:* In case of secured mail, decrypt the mail using the decrypting option by entering the security code.

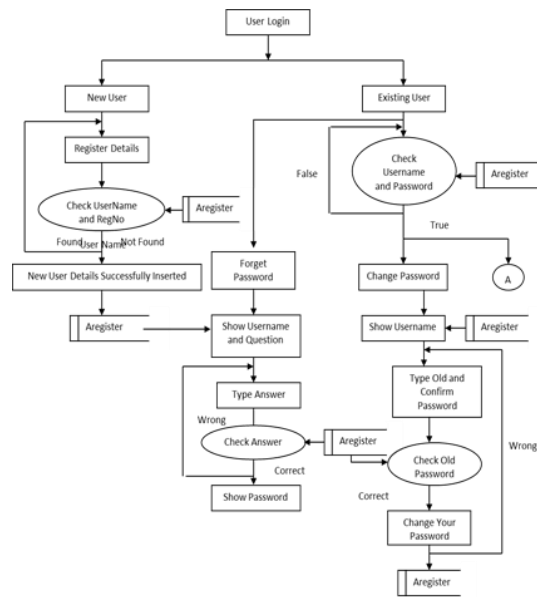


Fig. 3. Work flow of mail service system

**9. Result**

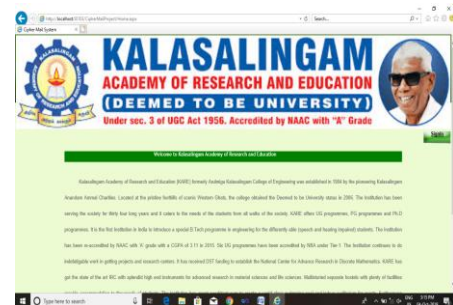


Fig. 4. Home Page

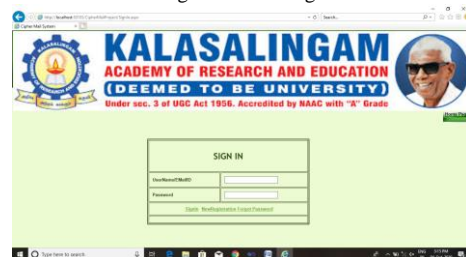
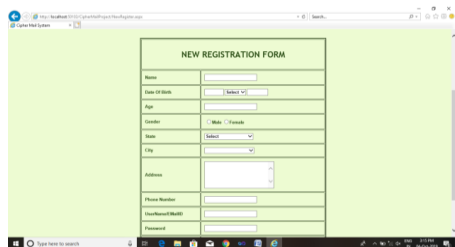


Fig. 5. Sign in page



The image shows a web browser window displaying a registration form titled "NEW REGISTRATION FORM". The form is set against a light green background and contains the following fields: Name (text input), Date of Birth (calendar icon), Age (text input), Gender (radio buttons for Male and Female), State (dropdown menu), City (dropdown menu), Address (text area), Phone Number (text input), User Name/Email (text input), and Password (text input). The browser's address bar and search bar are visible at the top.

Fig. 6. Registration page

## 10. Conclusion

The presence of each and every module has been reasoned out and placed very carefully, thus contributing to the best and efficient working of the unit. Secondly using very highly advance language with the help of up growing technology, the project has been successfully developed and implemented. To

make an efficient use of our mail service system we have analyzed the defects and issues in the existing system. This could make a small change in the mail service that we use generally use presently.

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