# Email Sending Using Non-GPRS Mobile

Avinash Patil[1], Mayur Danej[2], Virali Patel[3]

*[1]Department of Information Technology, S.N.J.B's KBJ COE Chandwad, avipatil9192@gmail.com*
*[2]Department of Information Technology, S.N.J.B's KBJ COE Chandwad , mayur.danej@gmail.com*
*[3]Department of Information Technology , S.N.J.B's KBJ COE Chandwad, syana.patel29@yahoo.com*

**Abstract**- Text message and Email are a good communication media for mobile device as well as computer. Using text message we cannot send an attachment files, but Email send message or simple Email as well as attachment likes images, audios, videos and different types of files etc. If user wants to send an Email then it requires the GPRS activation. It is not possible to send the attachment in Email using the ordinary mobile. In this paper we examine the entity and provide a facility to only registered users and also allowed to send an Email with their Non-GPRS mobile device and Email with their attachment files can be send. There is no need of GPRS activation.

**Keywords-** Modem; GPRS; dedicated server; Sim Card; Mobile Device

## I. INTRODUCTION

Text messaging or texting is the act of sending text to another one using mobile device. Mostly all the mobile phones companies provides this facility for the users. In the world most of the people use this facility for communication[6]. The term originally referred to message sent using the Short Message Service (SMS). It has grown to include message containing image, video and sound content know as MMS message. The sender of text message is known as a texture. Email is one of the mostly used utility of internet for communication. Also various important document, images, scanned document etc. can be sending as a message. Using the email effective communication is done between the communicated parties. Now a day's mostly multimedia mobile also provides this facility for the mobile users[7]. But for sending mail from mobile device is requires GPRS activation on that particular mobile device. Also email send from computer, for this required internet connection on that particular computer. Email with attachment with normal mobile device not possible. The system implementation to allow registered users to send email with their non GPRS mobile via SMS. Also attachment can be sent with email

## II. LITERATURE REVIEW

Text messaging is most often used between private mobile phone users, as a substitute for voice calls in situations where voice communication is impossible or undesirable. Some text Messages such as SMS can also be used for the remote controlling of appliances[5].We can send quick message easily. But major drawback is text message word size is 160 characters and also we did not sent Email or any attachment files. People most commonly use e-mail to send and receive text messages and also attachment files like document files, audios, videos and images etc. E-mail is also a faster way to communicate than postal mail because e-mail messages typically reach their destination in seconds rather than days. Drawback of Email is requiring an internet access and we need to check inbox regularly.
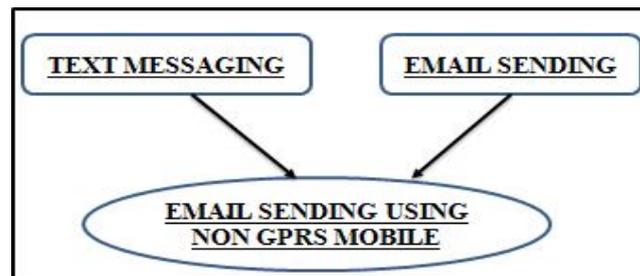
*Figure 1 Literature Review*
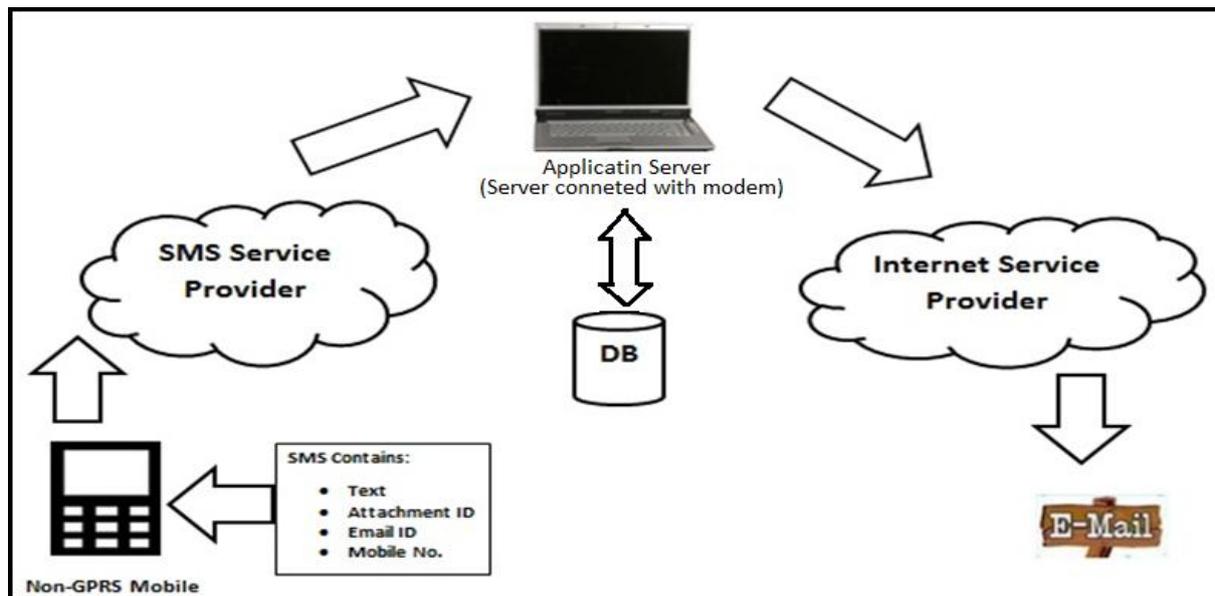
## III.    SYSTEM ARCHITECTURE



*Figure 2 Architeture of Email sending using non GPRS mobile*

In the system architecture has a following four actors are present.
1. Non GPRS user mobile.
2. SMS Service Provider.
3. Application Server.
4. Internet Service Provider.

### 3.1.  User
User uses the system for sending mail via sms through their non-GPRS mobile. User simply send the text message to the local server this text message contain the receiver mail address and attachment id. This attachment id is optional if users try to send document to another user that time attachment id is required that is store in to the local server database. User is must be register on the local server because this system is only made for register user.

### 3.2.  SMS Service Provider
SMS service provider is providing text messaging services to the mobile user. When we send text message to the local server at that time this message will pass to the sms service provider. Then these text messages pass the receiver side. It is a complete process for sending text message from one user to another user.

### 3.3. Local Server

Local server is work on the text messages that is received from the user; text message is the input for the system for completing email sending process. A local server accepts the text Message from sender. Local server is capable to send and receive the text message because GSM modem is connected to the local server. This message consist the receiver mail address and attachment id. Local server check sender is register user or not because this system only made for register users. Suppose sender is not register on the local server that time server simply ignores the message. If sender is register then that time local server make email receipt. According to the text message receive from sender. Local server read the text message using the mCore library, mCore library make the interface between text message and server. After this, server check attachment, if attachment is present into the database then server attach to the email receipt. This mail receipt sends to the internet service provider for sending the receiver side.

### 3.4. Internate Service Provider

Internet service provider takes input from local server as form of email receipt. Then this email receipt is send to the receiver side with the help protocols. Internet service provider use the Following protocol.
1. Simple Mail Transfer Protocol (SMTP)
2. Post Office Protocol (POP3).
3. Message/Mail Transfer Agent (MTA).

## IV.     METHODOLOGY

Methodology is a process which consists of the initial task which is necessary for the unknown user to become a registered user to use this type of service. It is basically step by step process from signup to the validation of Email sender. The steps used in methodology are as described below:

### 4.1. Signup

It is the prior step for the user to become a registered user over the server to use the SMS service for the Email sending to the particular receiver. It is a part of web front end.

### 4.2. Authentication

It is a process of verification and confirmation of the registered user account on the server of the particular user. After the successfully authentication user can do further operations or user this application. It is a part of the web front end.

### 4.3. Document Uploader

It is a part of web front end. It is a process by which we can upload the specific attachment files on the server with their according attachment id, So that the registered user can use the specific files to send to the receiver using a particular attachment id. It also works as an Email id verifier. After verifies then account forwards the Email and also Email with attachment through their non GPRS mobile. Any of email service providers can be used for this application but we have used only Google account for sending the email.

### 4.4. Database Module

It is a part of back end. This database module is nothing but the maintenance of the software. If any of the changes can be form then this changes must be changed in a database. This module is being developed as three-tier architecture.

### 4.5 SMS Processing

It is a process by which the user sends the text message from their non GPRS mobile with attachment id and it is converted to the email by using mCore library and is sent to the particular receiver. Before the send the Email to the receiver, first it will check whether the user is registered or not and then check the format of sms. After that it will split into various components like their Email id, attachment id, and subject/message.

### 4.6. Email Id Validation And Email Sender

This process is nothing but the confirming of the Email id whether it is valid or not on the server. If the Email id is valid, then the message will be sent and the receiver will receive the Email and if Email id is not valid then the process will not be completed. Any of email service providers can be used for this application but we have used only Google account for sending the email. Basically this module is used for validation purpose[1].

This section focuses on the implementation of an Email sending using non GPRS mobile that is currently under development. In this system there are two major roles is as following:
1) Register user
2) Admin user

Register user can use various operations like signup, document upload, Email sending etc. Admin user can also use above facilities. But main different is Register user can not delete any of use and admin user can delete any of register users.

## V. MATHEMATICAL MODEL

Systems read this message and split and check attachment and attach this document and make E-mail receipt.

1. Sms receiving.
2. Attachment document.
3. Create E-mail receipt.

For completion the operations of this system we add all this three operation.

$$S=M+D+f(s).$$

Where,     S-System.

M-messaging.

D-document.

f(s)-function of E-mail generation.

### 5.1 SMS Receiving

User sends the message to local server of system. System is read this message make interface with application using the mCore library.

$$M=m1, m2...mn.$$

Consider user send message to the system.

$$M=message\ data,\ mCore\ lib.$$

M=md+ml;

### 5.2 Attachment Document

User can send multiple attachment ids to the system that would be add in to the mail receipt. D is combination of the entire attachment id.

$$D=d1+d2+|+dn.$$

Where,        n-number of occurrence.

### 5.3 Email Receipt

Using the previous two stage data make email receipt with particular document attach with them.
f(s) =Make receipt.

## VI. RESULT

Today for sending email many sites are available for communication purpose. Gmail, Yahoo , Hotmail many sites provide this facility. Using this sites user simply send mail to another person, But for sending mail required internet connection. Its main drawback of exiting system so we propose this system that remove the problem of exiting system. Using this system user is able to send email without any internet connection. Also its very simple use because user only send text message.

## CONCLUSION

The system being developed allows the registered users to send Email or Emails with attachments from their non-GPRS mobile device. That means this system will be use anywhere and also any time for sending mail using non-GPRS mobile. The system can serve as a Helpline for the users. The service being made available can be occurred as either free or it can be paid that depends on the organization that will like to implement the system. The limitation of the system comes from the fact that the size of characters is limited to 160 characters. However this can be overcome by sending multiple SMS. Its very simple to send mail because user only send text message to the system.

## ACKNOLEDGMENT

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