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IMPLEMENTATION OF EMAIL TRACING ALGORITHM

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Abstract: In this paper we proposed the email tracking approach. By using email technology to transfer a digital message on the internet. In a market there are various types of software accessible to send and receive, the client uses email for different purposes it depends on how they consider about it. For that the proposed work is to develop an algorithm to works will all email companies like Gmail, Yahoo, Hotmail etc and also client side email programs are Outlook, Eudora etc. We don't need of any software download or plug in to just use our email tracking portal and send the emails in the correspondence manner and find out the results of how much recipient opened the email and a single recipient how many times opened it.

Keywords: Email, HTTP, Internet, Tracking, SMTP.

I INTRODUCTION

Electronic mail, most commonly called as email or email since around 1993, it is used for exchanging the digital messages from an author to one or more recipient. The email as used generating for any electronic document transmission. An internet email message consists of the message envelope, the message header and the message body.

A method for monitoring the email delivery to intended recipient is called as email tracking [2]. Tracking is used for observing the moves of object or person and timely of respective location data to a model. Most of tracking technologies use some form of digitally time stamped record to reveal the exact time and date of an email was received or opened, as well as the IP address of the recipient.

Now a day's sending an email is the easiest way of communication. But after sending an email, usually you don't know whether your email has been delivered successfully or not and read by the recipient. Email tracking service notifies that you when the email you send gets read. Email tracking is useful for the sender when he wants to know if the intended recipient received the mail actually or if they clicked on the links. Most of the email marketing software provides tracking features as, sometimes in aggregate (i.e. click through rate) and sometimes on an individual basis.

An Email tracking mechanism is widely for all organizations and they are monitoring their email servers mail traffics and transaction reports. It also provides security and confidentiality about the entire organization of mail is only the possible way to share the confidential information

across the organization. Email tracking is important because it has some reasons: - to take an action against spammers and abusive email senders to find its sources. Uncovering the persons or names behind the dubious emails will help users prevent communications from them in the future. It also stops these online threaten from creating more trouble in the internet.

II LITERATURE SURVEY

Email tracking is the challenging work in the Marketing field. Before working on this area and first focusing on the main problem, we must have the basic knowledge about email and email tracking. For this reason we have done some cases and consulting the professionals for understanding basic things about the email tracking. Here we refer some previous work related with implementation of email tracking algorithm and there methodologies.

Gurpreet Singh and Manupreet Kaur et al in 2015 [2] proposed a new approach for the implementation for tracking of email. That approach helps to various fields likes E-Commerce websites and marketing fields for monitoring the email delivery to intended recipient (tracking email). The proposed work is used to develop the algorithm for that works with all modern email companies includes that Hotmail, Yahoo, Gmail and AOL etc and also includes all client side email program like Eudora, Outlook etc. These methods for tracking is mostly done by E-Commerce websites to set up profiles of customers and spam their mailboxes and junk mails in the mailbox which containing advertizing they think that customer about interested in.

Muir Houston et al in 2008[3] they have focus on the two concerns in that the first one is the involving Methodological issues with tracking by mobile population, students graduating from university, it is patterns of residence may be sometime is temporary in nature. The second one is to provide some of the details from sample of graduates issue raised in the transition from undergraduate study. By using the two issues in order the paper will overcome. By using this paper transition of number of ways is engaged.

Michale Still et al in 2011[4] is explained the many of the businesses are depends on the email for their day to day operation it is specially for supporting product organizations .which unable to perform their role in the company, if they are in boxed immerse with malicious emails.

III PROPOSED METHODOLOGIES FOR IMPLEMENTATION OF EMAIL TRACKING USING ALGORITHM

Basic Method used:

We are using a simple process to track the email reads & hits; we are using a jpeg image instead of Beacon Image as to release the spamming which comes in the mind of user. This leads a hesitation to click the image.

Images displays as the part of the email, it will be totally related to content of the email. User will click the image then he will redirect to similar or matching content of the main email. This event will trigger a MySQL query which is written in the php document connected to image by hyper linking.

This event will result in following actions, i) It will take the email id of user who had clicked the image, this will be taken from back link code which is attached with the email. ii) Query will check whether similar user exists in the DB which is by purpose created for tracking. If the user exists it will modify the record and if user does not exist then it will enter new record the DB. With this mode of operation we will view a total hits & reads of the each email for separate email IDs.

Flow Chart for email tracking is shown in following Figure 2. The steps for email tracking algorithm is as follows:-

- Step 1-** Compose the email.
- Step 2-** Behind an image send the hidden link of query string.
- Step 3-** Opens the email by the recipient.
- Step 4-** By using query string information (date of email reading, subject, email ID) of the recipient sends to the server page.
- Step 5-** Check whether the information is currently exists for particular subject. If the information is currently exists for

particular subject then the counter is updated by 1 in the database. Otherwise the information is stored in the database.

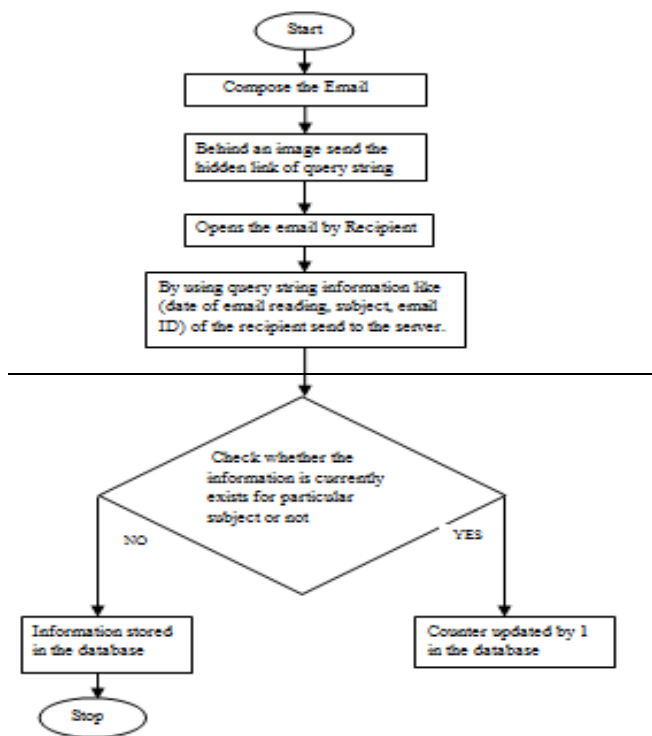


Figure 2: Flow Chart of our proposed method

IV PERFORMANCE ANALYSIS AND RESULTS

Results:

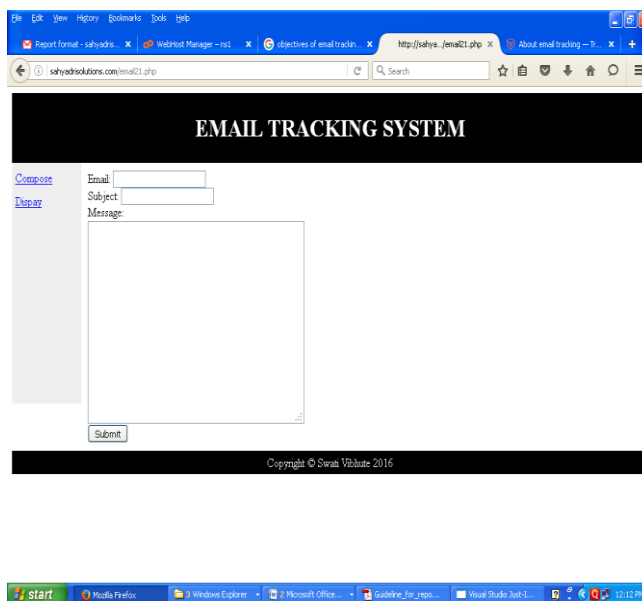


Figure 2 Compose Mail

Description: Above screen shows the reflection of window where we compose mail, which includes recipient mail id, subject and content space. After clicking submit button mail is sent from swati@sahyadrissolutions.com to recipient.

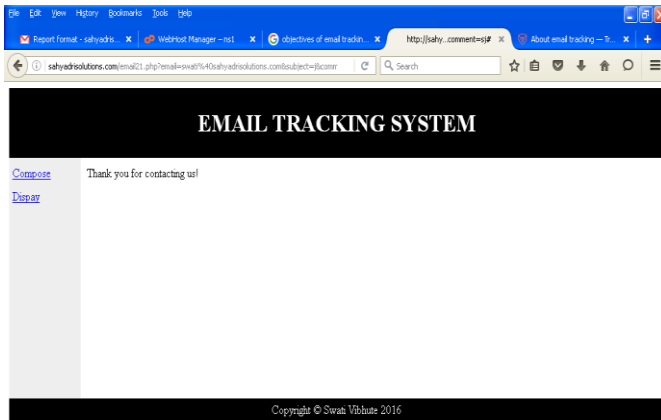


Figure 3 successfully mail sent

Description: Above screen shows the reflection of window for successfully mail sent to recipient.

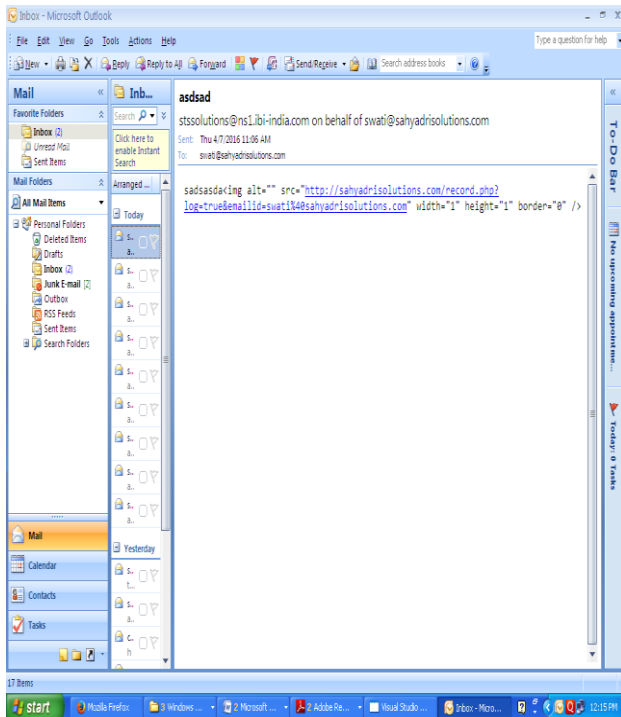


Figure 4 Mail in Inbox (View using outlook)

Description: Above screen shows the reflection of mail box of the recipient and the tracking link in its mail.

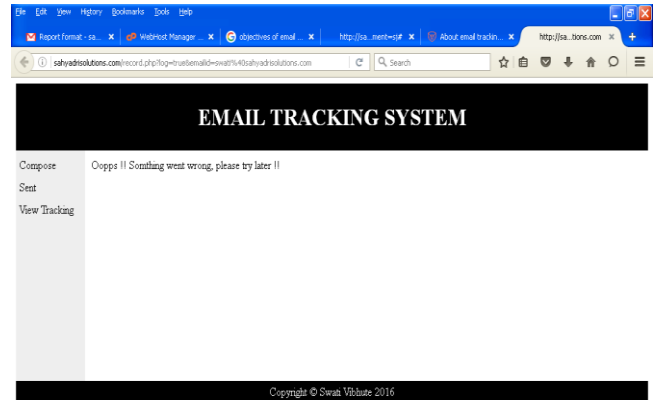


Figure 5 Window when user clicks the link

Description: Above screen shows the reflection of window when recipient clicks the tracking link in its mail. This is only a diversion for recipient as he should not notice that his click is tracked.

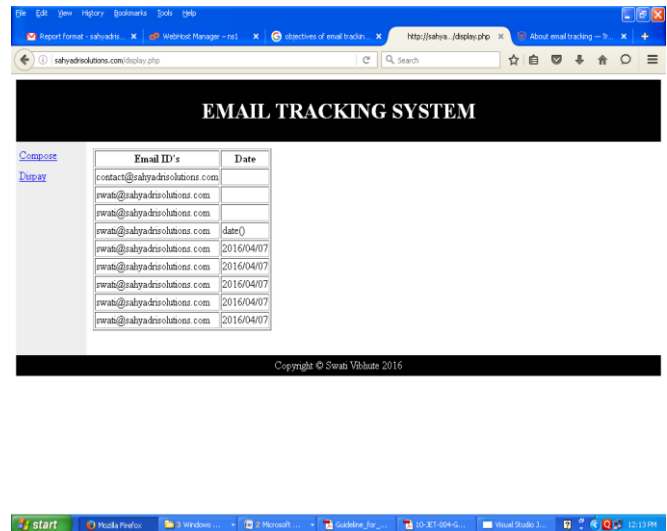
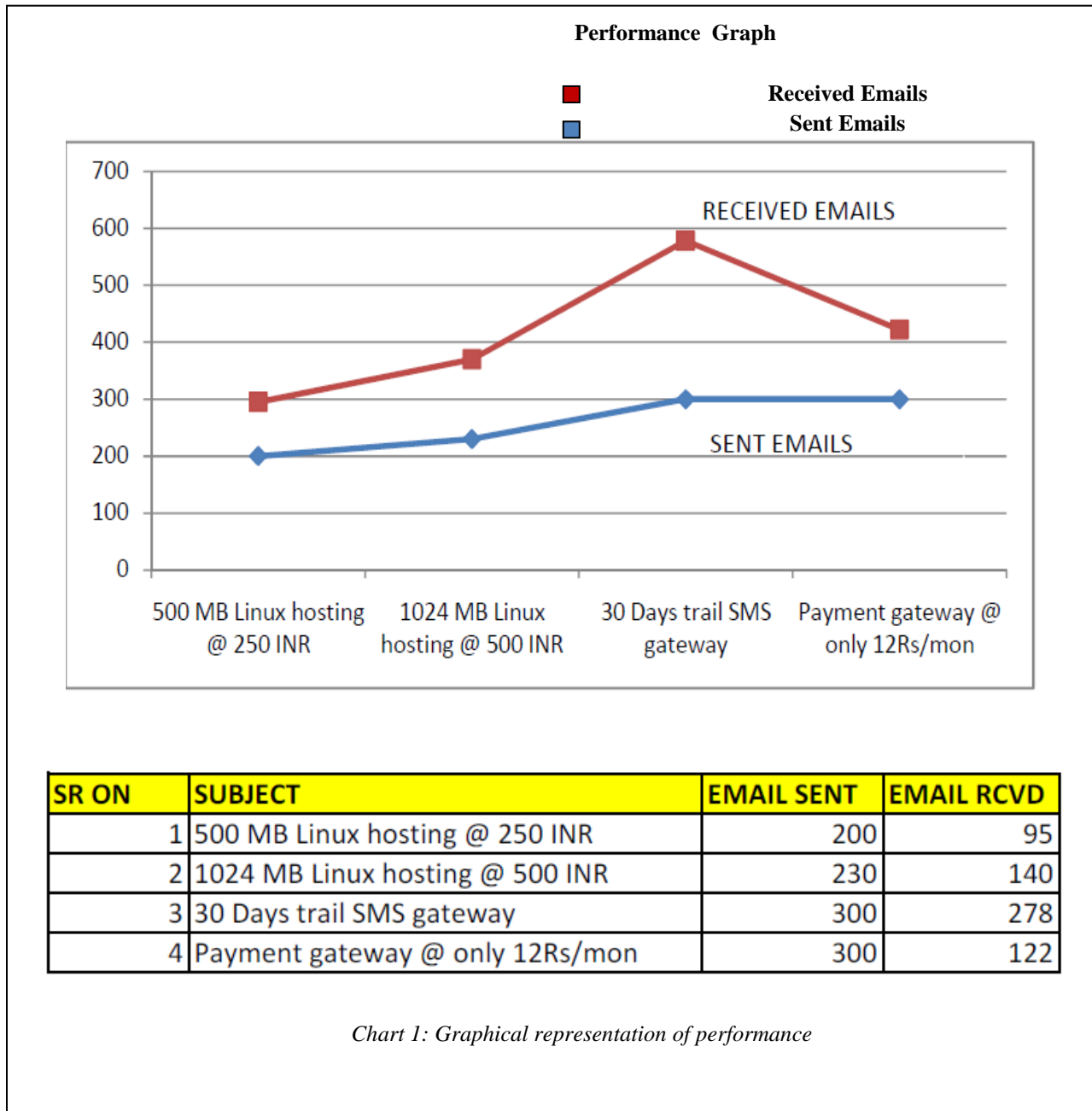


Figure 6 Details of Read/Open Email

Description: Above screen shows the reflection of window in which we can see the details of email which is been tracked. This includes email id and date of click.



V CONCLUSION

In this proposed system developing system which will fulfill the drawback in similar email applications which is used in regular days. Such as outlook, thunderbird, Pegasus mail. There is provision of receipts in these applications but it does not grantee it will work. But this system is totally independent tracking architecture which does support to manual blocking done by user, which is not possible in above application mentioned.

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