Title: DELETING/EDITING OF ALREADY SENT ELECTRONIC MAILS

Abstract: This invention relates to an electronic mail system having function that the mail transmitter can delete or edit the mail contents transmitted to the receiver. The transmission server according to this invention includes a mail code grant and mail separation section granting the written mail with a transmission mail code and separating the title from the mail text; a DB storing the transmission mail code, the mail text and the attached files; and a mail deletion/editation section searching the mail code stored in the DB and deleting/editing the mail text matched with the searched mail code, according to the deletion/editation request of the transmitter.
E-MAIL SYSTEM HAVING DELETION/EDITION FUNCTION FOR
TRANSMITTED MAIL

Technical Field

The present invention relates to an e-mail system. More particularly, this invention relates to an e-mail system, in which a sender can delete or edit the mail message that the sender has already sent in an Internet system having mail servers operating independently.

Background Art

In a conventional e-mail atmosphere, a sender has not been able to delete or edit the message after he/she has already sent the message. That is to say, even a true sender cannot delete or edit the erroneously sent mails, e.g., having erroneously written text, wrong designating recipients, etc.

In addition, if a worker of a certain company erroneously sent confidential messages to a recipient of wrong ID, the messages might be exposed to the third parties. This may cause a great loss to the company.

This problem is inevitable because Internet e-mailing is accomplished by exchanging messages, as shown in FIG. 1, between a sender mail server and a receiver mail server, such that a sender cannot delete the message already sent to the receiver’s mail server.

Disclosure of Invention

To solve the above problem in a conventional e-mail system, it is an object of the present invention to provide an e-mail system having functions that a mail sender can delete
or edit the mail message that the sender has already sent.

To achieve the above object, there is provided a sender server for an e-mail system, comprising: mail code grant and separation means for granting a transmission mail code to a written mail message to be sent and separating a mail title from a mail message body; database means for storing the transmission mail codes, mail message bodies, and attached files; and mail deletion/edition means for searching for transmission mail codes stored in the database means, to delete or edit the mail erroneously sent by the sender, and deleting or editing the mail message body corresponding to the searched mail code, according to deletion/edition request of a sender.

In the above configuration, the sender server sends a mail including a mail title, a mail sender's ID, a mail receiver's ID, and a transmission mail code, along with a CGI (common gateway interface) or LINK which enables a mail receiver to open the mail message body and the attached files. And the receiver server includes a CGI execution means for requesting a mail message body and attached files, simultaneously with opening the selected one from the received mails, and for enabling a mail receiver to be able to read the mail message body requested by the mail receiver and be provided the attached files.

The sender server of the e-mail system of this invention further comprises mail check means for checking whether or not a receiver has received and read the mail sent by the mail sender. The mail deletion/edition means performs deletion/edition of a mail message only when a receiver has not read the mail message yet, after the mail check means checks whether or not a receiver has received and read the mail sent by the mail sender.

The sender server of the e-mail system of this invention further comprises received mail password assigning means for assigning a password to the mail message body and the attached files to protect information on the mail message body and the attached files from
being exposed by an unauthorized person.

**Brief Description of Drawings**

The above and other objects, features and advantages of the present invention will become more apparent from the following description when taken in conjunction with the accompanying drawings, in which:

FIG. 1 shows a conventional e-mail system, and

FIG. 2 shows an e-mail system according to the present invention.

**Preferred Embodiment for Carrying out the Invention**

Preferred embodiment will be described herein below with reference to the accompanying drawings.

FIG. 2 is an e-mail system having transmitted message deletion and edition functions, according to the present invention, which comprises a sender server 210 and a receiver server 220. The sender server 210 plays a role in sending an e-mail message that sender wrote, deleting the message if it was erroneously sent, and editing the contents of the message already sent. The sender server 210 comprises a mail code grant and separation section 211, a database 212, a mail sending section 213, and a mail deletion/edition section 214, a mail message body and attached file providing section 215, a received mail password assigning section 216, and a mail check section 217.

The mail code grant and separation section 211 grants a transmission mail code to a written mail message to be sent and separates a mail title from a mail message body.

The database 212 stores transmission mail codes, mail message bodies, and attached files.
The mail sending section 213 sends a mail title, a sender’s mail ID, a receiver’s mail ID, a transmission mail code, and a CGI (common gateway interface) or LINK which enables a mail receiver 230 to open the mail message body and the attached files.

The mail deletion/edition section 214 searches for transmission mail codes stored in the database 212, to delete the mail erroneously sent by the sender or edit the wrong written mail, and deletes or edits the mail message body corresponding to the searched mail code, according to a sender’s deletion/edition request.

The mail check section 217 checks whether or not a receiver has received and read the mail sent by the sender. Only when a receiver has not read the mail message yet, the sender can delete/edit the mail message for reliability in a mail message.

The mail message body and attached file providing section 215 provides a mail message body and attached files stored in the database 212 by the request of a CGI execution section 223 in a receiver server 220.

The received mail password assigning section 216 assigns a password to the mail message body and the attached files to protect information on the mail message body and attached files from being exposed by an unauthorized person, even when the receiver is stolen his/her mail ID.

The receiver server 220 is comprised of a mail receiving section 221 for receiving a mail sent from the sender server 210, and a CGI execution section 223 for requesting a mail message body and attached files to the mail message body and attached file providing section 215 in the sender server 210 simultaneously with opening the selected one from the received mails, and for operating the mail message body and attached file providing section 215 such that a mail receiver 230 can read the mail message body requested above and be provided the attached files.
The operation of the e-mail system of this invention will be described. First, a mail sender 200 writes an e-mail and instructs the sender server 210 to send the mail.

Then, the mail code grant and separation section 211 in the sender server 210 grants a transmission mail code to the mail message to be sent and, simultaneously, separates a mail title from a mail message body and stores the transmission mail code, the mail message body, and the attached files in the database 212.

The mail sending section 213 sends to the receiver server 220 a mail title, a sender's mail ID, a receiver's mail ID, a transmission mail code, and a CGI or LINK which enables a mail receiver 230 to open the mail message body and attached files.

Such sent e-mail messages are received by the receiver server 220 and finally transmitted to a mail receiver 230. The description of receiving operation is as follows.

The mail receiving section 221 receives a mail sent from the mail sending section 213. The CGI execution section 223, when a receiver 230 tries to read the sent e-mail, executes CGI or LINK to transmit the transmission mail code to the mail message body and attached file providing section 215 in the sender server 210 for request of a mail message body and attached files. And, the mail message body and attached file providing section 215 compares the transmission mail code with values stored in the database 212, and, if they coincides, draws out the mail message body and attached files from the database 212 and provides them to the CGI execution section 223. Therefore, a mail receiver 230 can read the mail message and be given the attached files, through a CGI or LINK attached to a mail body.

In addition, a mail receiver 230 may assign a password to the received mail message, if the message is to be importantly handled, through the received mail password assigning section 216. This is for protecting information on the mail message body and attached files.
from being exposed by an unauthorized person, even when the receiver is stolen his/her mail ID, because the mail message body exists in the sender server 210.

Additionally, if a mail sender 200 wants to delete or edit the mail that the sender has already sent, he/she can do that by mail deletion/edition request of the mail sender 200. This is possible because the separated mail message body and attached files are stored in the database 212 in the sender server 210.

The e-mail system according to the present invention makes deletion/edition of the sent mail possible, which has been impossible in the conventional e-mail systems. Thus, this invention can improve imperfection of the conventional e-mail systems.

While the invention has been shown and described with reference to a certain embodiment to carry out this invention, it will be understood by those skilled in the art that various changes in form and details may be made therein without departing from the spirit and scope of the invention as defined by the appended claims.
What Is Claimed Is:

1. In an e-mail system having a sender server and a receiver server, the sender server comprising:

   mail code grant and separation means for granting a transmission mail code to a written mail message to be sent and separating a mail title from a mail message body;

   database means for storing the transmission mail codes, mail message bodies, and attached files; and

   mail deletion/edition means for searching for transmission mail codes stored in the database means, to delete the mail erroneously sent by the sender or edit the wrong written mail, and deleting or editing the mail message body corresponding to the searched mail code, according to deletion/edition request of a sender,

   wherein the sender server sends a mail including a mail title, a mail sender’s ID, a mail receiver’s ID, and a transmission mail code, along with a CGI (common gateway interface) or LINK which enables a mail receiver to open the mail message body and the attached files; and the receiver server includes a CGI execution means for requesting a mail message body and attached files, simultaneously with opening the selected one from the received mails, and for enabling a mail receiver can read the mail message body requested by the mail receiver and be provided the attached files.

2. An e-mail system of claim 1, the sender server further comprising:

   mail check means for checking whether or not a receiver has received and read the mail sent by the mail sender.
3. An e-mail system of claim 2, wherein the mail deletion/edition means performs deletion/edition of a mail message only when a receiver has not read the mail message yet, after the mail check means checks whether or not a receiver has received and read the mail sent by the mail sender.

4. An e-mail system of claim 1, the sender server further comprising:
   received mail password assigning means for assigning a password to the mail message body and the attached files to protect information on the mail message body and the attached files from being exposed by an unauthorized person.
Fig. 1

mail sender

sending mail

sender server

receiver server

receiving mail

mail receiver
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

IPC7 H04L 12/58

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
H04L 12/58

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Korean patents and applications for inventions since 1975
Korean utility models and applications for utility models since 1975

Electronic data base consulted during the international search (name of database and, where practicable, search terms used)
IEEE/IEE Electronic library (since 1988), "Delete and Electronic and Mail"

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
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<td>Y</td>
<td>JP 11252165 A (NEC CORP) 17 September 1999 (17.09.1999)</td>
<td>1-4</td>
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<tr>
<td>Y</td>
<td>WO 9953670 A (LANDEL TECHNOLOGY INC e.a.) 21 October 1999 (21.10.1999)</td>
<td>1-4</td>
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<td>A</td>
<td>I have seen the future: it is flooded with email</td>
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<td></td>
<td>Volume: 12 3, Pages: 111-112</td>
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Further documents are listed in the continuation of Box C. See patent family annex.

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