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(54) Title: METHOD AND SYSTEM FOR CONFIRMING RECEIPT OF ELECTRONIC MAIL TRANSMITTED VIA A COMMUNICATIONS NETWORK
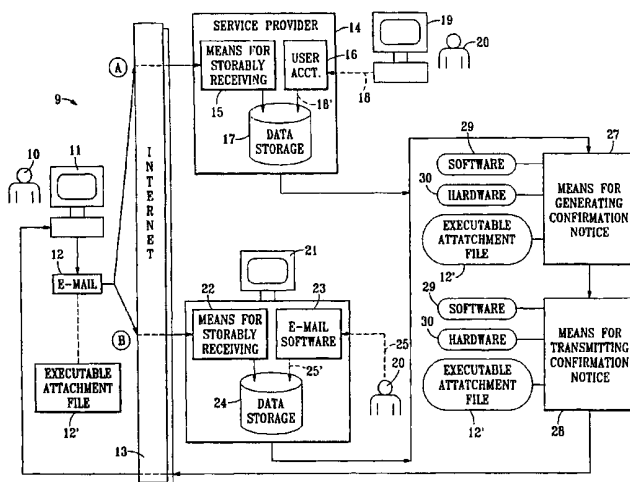
(57) Abstract: A method and system for confirming receipt of e-mail (12) sent by a sending party to a target recipient (20) over a communications network, such as the Internet. E-mail (12) sent by the sending party is received and stored in a data storage unit (17) of a target system which is accessible by the target recipient (20). When the target recipient addresses either the e-mail itself, or an e-mail processing program or user account, a confirmation of receipt notice is generated, preferably compiling various delivery information. The confirmation of receipt notice is then either automatically transmitted to the sending party without the participation of the target party, or manually transmitted by the target party. In either case, generating and transmitting the confirmation of receipt notice is accomplished by software (29) or hardware (30) installed on the target system, or by an executable attachment file (12') transmitted with the e-mail (12). In this manner, the sending party can confirm whether the target recipient actually received and was made aware of the e-mail (12).

1   S P E C I F I C A T I O N

2   METHOD AND SYSTEM FOR CONFIRMING RECEIPT OF ELECTRONIC

3   MAIL TRANSMITTED VIA A COMMUNICATIONS NETWORK

-4   BACKGROUND OF THE INVENTION

5   The field of the invention generally relates to receipt

6   confirmation methods and systems. The invention relates more

7   particularly to a method and system for confirming receipt of

8   electronic mail transmitted by a sending party to a target

9   recipient via a communications network. A confirmation of

10 receipt notice is generated and sent back to the sending party

11 when the target recipient actually receives and is made aware of

12 the presence and/or contents of the electronic mail delivery.

13   Many significant developments have been made in recent years

14 in a variety of communications mediums. In particular, the

15 development of the Internet, localized intranets, and similarly

16 network-based communications has made inter-connectivity and

17 networking possible on both a local as well as global scale.

18 Moreover, with the growth of online communications networks,

19 various devices and methods have been developed to facilitate as

20 well as promote online communication and means for conducting

21 business. One recent development has been the creation of

22 electronic mail, also known as "e-mail," which allows users to

23 electronically send and receive various forms of digitized data,

1   digitized data, including text, graphics, video, sounds, etc.

2   almost anywhere, and virtually instantaneously. In recent years,

3   e-mail has grown tremendously in popularity, and has gained

4   widespread use throughout the world.

5   Unfortunately, however, e-mail does not yet afford users the

6   same sense of security and reliability as other more traditional

7   communications mediums, such as mail delivered by the postal

8   system. It is often frustrating to find that an e-mail message

9   thought to be properly delivered, was never received by the

10   intended recipient because of an unknown system error or

11   malfunction. It is particularly devastating when important

12   documents and materials transmitted over the Internet are never

13   received. In many cases, therefore, it is essential that the

14   sending party verify and confirm that the intended recipient

15   actually received the materials.

16   Traditionally, receipt confirmation of documents and

17   materials sent via the postal system has been through signature

18   request pursuant to identification verification of the receiving

19   party. This technique, often used by mail service delivery

20   agents, is intended to confirm actual delivery at the targeted

21   location and/or ascertain the identity of the receiving party.

22   This confirmation system has been developed to provide the sender

23   with a measure of security and some evidence that the sent

24   materials were in fact received, and that the target recipient

25   was made aware of the delivery. However, the disadvantage of

1   this traditional method of receipt confirmation is that it can be

2   time-consuming, ineffective, and disproportionately expensive,

3   especially in light of the expanding prevalence of the Internet

4   as a global communications medium.

5   One particular method of receipt confirmation has been

6   widely used on the Internet, particularly in the electronic

7   greeting card industry. For example, when an electronic greeting

8   card is chosen from a website by a sending party for delivery to

9   a target recipient, an e-mail message is typically sent in lieu

10   of the greeting card itself. The e-mail message notifies the

11   target recipient that an electronic greeting card awaits him/her

12   at the website. When the target recipient accesses the greeting

13   card at the designated website, a confirmation receipt e-mail

14   message is automatically generated by the greeting card service

15   and sent to the sending party.

16   While this method provides a certain level of reliability,

17   it is uncertain that the target recipient will acknowledge the

18   greeting card at all by visiting the designated Internet website.

19   Only with the target recipient's cooperation would a receipt

20   confirmation be generated and sent to the sending party.

21   Additionally, because this form of Internet delivery confirmation

22   requires the participation of a third party service provider

23   functioning as an intermediary, delivery and confirmation is

24   indirect and relatively inefficient, especially since direct

1 communication and delivery is readily available to all e-mail

2 users.

3   Receipt confirmation of directly transmitted e-mail

4 deliveries between e-mail users is presently possible by manual

5 confirmation. This typically requires a series of additional

6 actions to be taken by the target recipient, i.e. by

7 independently writing a separate confirmation e-mail. Again,

8 however, the success of this method requires the participation

9 and cooperation of the recipient or target party to confirm

10 receipt of a transmitted e-mail. Without the target party's

11 cooperation, it is uncertain in most cases whether a particular

12 e-mail was ever opened or whether the target party was even made

13 aware of its presence. Even in situations where e-mail is

14 actually delivered to a target party's "inbox," i.e. a logical

15 destination where new e-mail is placed prior to opening, there is

16 typically no evidence to indicate that the target party actually

17 opened to view the e-mail. A target party may discriminately

18 choose to open and view certain e-mails received while never

19 opening and examining the contents of others. This would be

20 particularly problematic in situations where proof of service

21 with notice is required, such as service of jury duty summons, or

22 other legal and court documents. It would also pose a problem in

23 other situations which are unlikely to elicit cooperation from

24 the intended recipient. In many cases, therefore, it would be

25 advantageous to afford a party sending e-mail a means for

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1   confirming receipt of the e-mail which is substantially beyond

2   the control of the target party.

3   BRIEF SUMMARY OF THE INVENTION

4   It is an object of the present invention to provide a prompt

5   and reliable method and system for confirming receipt of

6   electronic mail transmitted over a communications network, such

7   as the Internet.

8   It is a further object of the present invention to provide a

9   prompt and reliable method and system which affords a party

10   sending electronic mail a greater sense of security that an

11   electronic mail was in fact delivered to a target party by

12   return-receiving a confirmation of receipt notice that the target

13   party actually received and was made aware of the presence and/or

14   contents of the electronic mail.

15   The present invention is for a method and system for

16   confirming receipt by a target party of electronic mail

17   transmitted to the target party from a sending party via a

18   communications network. The method and system storably receives

19   the electronic mail on data storage means of a target system by

20   means for storably receiving electronic mail of the target

21   system. The target system is connected to the communications

22   network and is designated by the target party to receive

23   electronic mail. In this manner, the target party is capable of

24   accessing the electronic mail on the data storage means.

25   Furthermore, the method and system generates a confirmation of

26   receipt notice, by means for generating a confirmation of receipt

27   notice, upon the occurrence of an access event caused by the

28   target party. And finally, the method and system transmits the

29   confirmation of receipt notice to the sending party, by means for

30   transmitting the confirmation of receipt notice.

31   BRIEF DESCRIPTION OF THE DRAWINGS

32   FIG. 1 is an overview flowchart depicting the flow of

33   information that occurs between the sending party and the target

34   party in the method and system of confirming receipt of

35   electronic mail according to the present invention.

36   FIG. 2 is a block diagram of the information flow that

37   occurs in the method and system of confirming receipt of

38   electronic mail according to the present invention.

39   DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

40   Referring now to the drawings, FIGS. 1 and 2 together show

41   the information flow that occurs in a method and system 9

42   (hereinafter "system") for confirming receipt of electronic mail

43   via a communications network, such as the Internet 13. In

44   particular, FIG. 1 shows an overview flowchart pictorially

45   depicting the general flow of information between a sending party

46   10 and a target party 20, while FIG. 2 illustrates in block

1   diagram form the structured path of information which defines the

2   present invention.

3   As can be seen in FIG. 1, the Internet 13 links together the

4   sending party 10 and the target party 20 to enable the transfer

5   of information between them, or with anyone also connected to the

6   Internet 13. Although the Internet 13 is used exclusively when

7   referencing a communications network, the present invention is

8   intended to include all forms of communications networks capable

9   of transmitting and receiving data, preferably digital data,

10   which allows users of the network to communicate. In this

11   regard, a communications network includes, but is not limited to,

12   all telecommunications networks such as the Internet, i.e. the

13   World Wide Web and BBS systems, hardwire telephony, wireless

14   networks including cellular and PCS systems, satellite networks,

15   etc. Furthermore, communications networks include localized and

16   regional networks such as intranets and local area network (LAN)

17   systems which interconnect a relatively few number of user

18   systems or terminals, typically by means of a centralized server.

19   As shown in FIG. 1, the sending party 10 first acquires an

20   electronic mail, also known as "e-mail" 12, to send to the target

21   party 20 using a computer 11. The e-mail 12 can be acquired by

22   either creating the e-mail 12 with a suitable e-mail generating

23   software, or selecting an existing e-mail 12 for forwarding. An

24   executable attachment file 12', i.e. a relatively small program,

25   may also be created and transmitted along with the e-mail 12 (see

1   discussion below). While e-mail 12 is commonly understood to

.2   mean electronic messages transmitted via the Internet 13,

_3   analogous to a letter delivered by the postal system, it is not

-4   limited only to such. Electronic mail and e-mail 12, are broadly

5   defined and used herein and in the claims to mean any encoded

-6   information containing text, graphics, sound, video, etc. which

7   is transmitted electronically by analog or digital means, over a

.8   communications network, typically the Internet 13. Thus, e-mail

9   12 can also include all electronic transmissions of digital

10   information which are delivered to a target destination over a

11   communications network, such as file transfer protocol (ftp)

12   transmissions, hypertext transfer protocol (http) transmissions,

13   facsimiles, voice messages, etc.

14   By connecting to the Internet 13, the sending party 10 can

15   transmit the acquired e-mail 12 to the target party 20. As shown

16   by arrows A and B in FIG. 1, the transmission path of the e-mail

17   12 will depend on where and what type of computer system the

18   target party 20 has designated as his/her target system, i.e. the

19   destination computer system to which e-mails 12 are delivered and

20   stored. In a first preferred embodiment, as shown in FIG. 1, the

21   target system is a computer server 14 of a service provider

22   capable of processing e-mail 12 for multiple users. For example,

23   the service provider can be an Internet service provider (ISP),

24   such as the online service offered under the trademark 'America

25   Online." Alternatively, the service provider can be an e-mail

1   service provider (EMSP), such as the online e-mail service

2   offered under the trademark "Hotmail." Further, the server 14

3   can be a server of an intranet or LAN system which networks a

4   plurality of user terminals 19 or workstations together. In this

5   last scenario, the LAN server can either be an independent server

6   system or one of the networked computer workstations or user

7   terminals 19. Moreover, the LAN server can itself be connected

8   to the Internet to centrally provide Internet access to each

9   networked computer workstation or user system.

10   For these server-type target systems 14, a user account,

11 e.g. a system or e-mail account 16, is typically provided to the

12 target party 20. ISPs typically provide their users with a

13 designated user account and an e-mail address associated with the

14 user account, as well as providing access to the Internet. EMSPs

15 also provide their users with a user account 16 and an e-mail

16 address associated with the account, but do not provide access to

17 the Internet. Thus users retrieving e-mail from an EMSP must do

18 so by first connecting to the Internet via an ISP. And similar

19 to the servers operated by ISPs or EMSPs, LAN servers also

20 typically provide a user account 16 to the target party 20

21 whereby only authorized personnel can access shared resources.

22 In all the above situations, incoming e-mails 12 for the target

23 party 20 are logged and saved under the target party's designated

24 user account 16, which is accessible by password or confidential

25 code entry. Further, to access a user account provided by an ISP

1   or EMSP, the target party 20 typically uses a user terminal 19 to

2   connect directly to the ISP server, or to the EMSP server via an

3   ISP.

4   Alternatively, the target system can be a simple user system

5   21 directly accessible by the target party 20. The user system

6   21 is preferably a personal computer system, which is typically

7   connectable to the Internet via an ISP, or to an intranet as per

8   a LAN system, as discussed above. In these scenarios, accessing

9   the user system 21 requires only that the target party 20 power

10 on and directly access the user system 21, without having to

11 access a secondary site such as in the server-type 14 target

12 systems described above. In either case, however, the target

13 system 14, 21 has data storage means 17, 24, typically a hard

14 disk drive, having a storage medium capable of reading and

15 writing data thereon. Further, the target system 14, 21 has

16 means for storably receiving e-mail 15, 22 on the data storage

17 means 17, 24, which is typically a computer software program,

18 such as an Internet browser program. It is notable that the data

19 receiving process for most server 14 and user systems 21

20 inherently involves writing or storing data, i.e. e-mails 12, on

21 the data storage means 17, 24 as it is being received. Further,

22 there is a notable distinction between a "user system" and a "user

23 terminal." A "user system" is defined and used herein and in the

24 claims as a computer system having means for storably receiving

10

1   electronic mail 22 and data storage means 24. However, a 'user

2   terminal" need not have means for storably receiving electronic

3   mail or a data storage means 26 where electronic mail can be

4   stored because it is used primarily to access a server 14 which

5   does.

6   As can be seen in FIG. 1, once the e-mail 12 is received

7   into the target system 14, 21, an access event 18, 18', 25, 26

8   caused by the target party 20 causes a confirmation of receipt

9   notice to be generated 27 (discussed below). In a first

10   embodiment involving the server-type target system 14, and

11   denoted by the path indicated by arrow A, the access event can

12   occur upon logging into 18 a user account 16 of the target party

13   20. The access event can also occur upon opening 18' the e-mail

14   12 subsequent to logging into 18 the user account, e.g. e-mail

15   account 16 of an EMSP. Typically, because logging into a user

16   account 16 requires a password or confidential access code, a

17   sufficient degree of security is generally provided to ensure

18   that an individual actually logging on is in fact the target

19   party 20. However, it should be noted that alternative means of

20   identify verification upon access, such as fingerprint

21   verification, or possibly DNA verification, would provide a

22   greater measure of security in ascertaining the identify of the

23   individual actually causing the access event (see discussion

24   below). In a second embodiment involving the user system-type

25   target system 21, and denoted by the path indicated by arrow B,

1   the access event can similarly occur upon the activation 25 of an

2   e-mail processing software 23 installed on the user system 21.

3   Alternatively, the access event can occur by opening 26 the e-

4   mail 12 subsequent to activation 25 of an the e-mail processing

5   software 23.

6   Upon occurrence of the access event 18, 18', 25, 26, the

7   system 9 generates a confirmation of receipt notice (not shown),

8   by means for generating a confirmation of receipt notice 27. At

9   this point, the system 9 compiles various delivery information

10 including, but not limited to, time and date of access, physical

11 address, telephone number of access location, identity of the

12 target party 20, etc. In a preferred embodiment, the delivery

13 information would also include the identity of an individual

14 actually causing the access event 18, 18', 25, 26. This would be

15 particularly advantageous where the target party 20 is a business

16 or organizational entity, and employees or other personnel

17 receive e-mail 12 on its behalf. Moreover, ascertaining the

18 identity of the individual actually causing the access event

19 would provide additional proof of actual receipt of the e-mail

20 12. For this purpose, it is contemplated that suitable means of

21 identification verification for access known in the relevant art

22 would be used in conjunction with the present invention, such as

23 access upon fingerprint verification, genetic (DNA) verification,

24 etc.

1   Additionally, in another embodiment, the means for

2   generating 27 would include means for informing the target party

3   20 of the receipt of the e-mail 12. Informing the target party

4   20 would be accomplished either by informing the target party 20

5   of the presence of the e-mail 12, or by opening the e-mail 12 to

6   exhibit the contents of the e-mail, either partially or in its

7   entirety. This embodiment would be applicable only where the

8   access event corresponds to either arrows 18 or 25. Because

9   access to the user account 16 or the e-mail processing software

10   23 will not typically notify the presence and/or contents of the

11   e-mail, the means for informing ensures that the target party 20

12   is properly notified prior to generation of the confirmation of

13   receipt notice 27. This is important because in many situations,

14   the target party 20 is unwilling to cooperate with the sending

15   party 10 in returning a confirmation of receipt reply.

16   As can be seen in FIG. 1, following the generation of the

17   confirmation of receipt notice 27, the notice is transmitted, by

18   means for transmitting 28, to the sending party 10 at a

19   designated location, typically the sending party's e-mail inbox

20   (located on computer 11 in FIG. 1). The sending party 10 can

21   thereafter review the delivery information to ascertain the

22   delivery conditions. Further, the sending party can print out

23   the confirmation of receipt as proof of delivery. As shown in

24   FIG. 1, both the means for generating 27 (including the means for

25   informing) and the means for transmitting 28 can be embodied

1   either as modules of a receipt confirmation software 29 installed

2   on the target systems 14, 21, or as hardware components 30 also

3   installed on the target systems 14, 21. Additionally, in one

4   particular embodiment involving the server-type target system 14,

5   both the means for generating 27 (including the means for

6   informing) and the means for transmitting 28 can be installed on

7   the user terminal 19 as either modules of a receipt confirmation

8   software 29 or as hardware components 30. Alternatively, the

9   means for generating 27 and means for transmitting 28 can be

10   modules of an executable attachment file 12' transmitted together

11   with the e-mail 12. The executable attachment file is preferably

12   a suitably small program capable of activating upon the

13   occurrence of the access event caused by the target party 20.

14   FIG. 2 shows a block diagram showing a preferred structural

15   depiction of system 9 discussed in FIG. 1 above. Starting from

16   the block 31, the sending party acquires an e-mail (not shown in

17   FIG. 2) to send to the target party at block 31', either by

18   creating a new e-mail or using an existing e-mail for forwarding.

19   At block 32, the sending party decides whether to utilize the

20   confirmation of receipt system 9 or transmit the e-mail 12

21   without receipt notification. If the confirmation of receipt

22   notice is not desired, the e-mail 12 is sent by traditional means

23   for e-mail delivery, at block 32", without utilizing the system

24   9. If a confirmation of receipt notice is desired, the e-mail 12

25   may be transmitted at block 32' by the sending party 10. If yes,

14

1   the target system then receives the e-mail at block 33, which

2   simultaneously stores it into the data storage means in block 34.

3   Next, at block 35 the system 9 determines whether the access

4   event occurred which was caused by the target party. If not, the

5   e-mail will remain stored until the target party accesses the

6   target system. If yes, at block 36 the system 9 determines

7   whether the access event was caused by the target party accessing

8   either the server or the e-mail processing software. If yes,

9   information notifying the target party of the e-mail's presence

10   is preferably displayed on the screen, as shown in block 37. The

11   display can be a simple notice of the contents and/or title of

12   the e-mail, or a complete opening and viewing of the entire

13   contents. If not, at block 38 the system 9 determines whether

14   the access event was caused by the target party accessing the e-

15   mail. If not, the system 9 returns to block 35.

16   If so, however, at block 39 the system 9 generates the

17   confirmation of receipt notice in preparation for delivery to the

18   sending party. Block 39 is likewise reached following block 37.

19   At block 40, the system 9 determines whether the manual or

20   automatic transmission option is implemented. If the automatic

21   transmission option is chosen, the confirmation of receipt notice

22   is transmitted to the sending party at block 44. If the manual

23   transmission option is chosen, at block 41 the target party is

24   prompted whether a confirmation of receipt notice is to be return

25   transmitted to the sending party. If no, the system ends at

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1   block 43. If yes, at block 44 the system transmits the

2   confirmation of receipt notice to the sending party 10.

3   Thereafter, the sending party receives the confirmation of

4   receipt notice at block 45, whereupon the system 9 ends.

5   The present embodiments of this invention are thus to be

6   considered in all respects as illustrative and not restrictive;

7   the scope of the invention being indicated by the appended claims

8   rather than by the foregoing description. All changes which come

9   within the meaning and range of equivalency of the claims are

10   intended to be embraced therein.

I CLAIM:

1   1.   A method of confirming receipt by a target party of

2   electronic mail transmitted to said target party from a

3   sending party via a communications network, said method

-4   comprising the steps of:

5   storably receiving said electronic mail on data storage

6   means of a target system by means for storably receiving

7   electronic mail of said target system, said target system

8   connected to said communications network and designated by

9   said target party to receive electronic mail, wherein said

10   target party is capable of accessing said electronic mail on

11   said data storage means;

12   generating a confirmation of receipt notice, by means

13   for generating said confirmation of receipt notice, upon the

14   occurrence of an access event caused by said target party;

15   and

16   transmitting said confirmation of receipt notice to

17   said sending party, by means for transmitting said

18   confirmation of receipt notice.

1 2.   The method as in claim 1,

-2   wherein said means for generating a confirmation of

3   receipt notice, and said means for transmitting a

-4   confirmation of receipt notice are each modules of a receipt

5   confirmation software installed on said target system.

1 3.   The method as in claim 1,

-2   wherein said means for generating a confirmation of

3   receipt notice, and said means for transmitting a

4   confirmation of receipt notice are each hardware components

5   installed on said target system.

1 4.   The method as in claim 1,

2   wherein said means for generating said confirmation of

-3   receipt notice, and said means for transmitting said

-4   confirmation of receipt notice are each modules of an

5   executable attachment file transmitted together with said

6   electronic mail.

1   5.   The method as in claim 1,

2   wherein said target system is a server of a service

3   provider capable of processing electronic mail for multiple

4   users, said target party capable of accessing a designated

5   user account provided by said service provider via a user

6   terminal to thereby access said electronic mail from said

7   data storage means.

1   6.   The method as in claim 5,

2   wherein said means for generating comprises receipt

3   informing means, whereby, upon the occurrence of said access

4   event caused by said target party, said target party is

5   informed of the receipt of said electronic mail; and

6   wherein said access event occurs when said target party

7   accesses said designated user account.

7.   The method as in claim 5,

         wherein said access event occurs when said target party

    accesses said electronic mail from said data storage means

    subsequent to accessing said designated user account.

1   8.   The method as in claim 5,

2   wherein said means for generating a confirmation of

3   receipt notice, and said means for transmitting a

4   confirmation of receipt notice are each modules of a receipt

5   confirmation software installed on said user terminal.

1   9.   The method as in claim 5,

2   wherein said means for generating a confirmation of

3   receipt notice, and said means for transmitting a

4   confirmation of receipt notice are each hardware components

5   installed on said user terminal.

1   10.   The method as in claim 1,

2   wherein said target system is a user system directly

3   accessible by said target party, said user system including

4   an electronic mail processing software installed on said

5   user system.

1   11.   The method as in claim 10,

2   wherein said means for generating a confirmation of

3   receipt notice comprises receipt informing means, whereby,

4   upon the occurrence of said access event caused by said

5   target party, said target party is informed of the receipt

6   of said electronic mail; and

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wherein said access event occurs when said target party accesses said electronic mail processing software.

12.   The method as in claim 10,

wherein said access event occurs when said target party accesses said electronic mail subsequent to accessing said electronic mail processing software.

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13.   The method as in claim 1,

wherein, said step of generating said confirmation of receipt notice includes the step of compiling delivery information for inclusion in said confirmation of receipt notice.

14.   The method as in claim 13,

wherein said delivery information includes an identity of an individual causing said access event.

15.   The method as in claim 1,

wherein said step of transmitting said confirmation of receipt notice requires manual transmission by said target party of said confirmation of receipt notice.

16. The method as in claim 1,

         wherein said step of transmitting said confirmation of
receipt notice automatically transmits said confirmation of
receipt notice.

1   17. A system for confirming receipt by a target party of

2   electronic mail transmitted to said target party from a

3   sending party via a communications network, said system

4   comprising:

5   a target system connected to said communications

6   network and designated by said target party to receive

7   electronic mail, said target system including data storage

8   means, and means for storably receiving said electronic mail

9   on said data storage means, wherein said target party is

10   capable of accessing said electronic mail from said data

11   storage means;

12   means for generating a confirmation of receipt notice

13   upon the occurrence of an access event caused by said target

14   party; and

15   means for transmitting said confirmation of receipt

16   notice to said sending party.

1   18. The system as in claim 17,

2   wherein said target system is a server of a service

3   provider capable of processing electronic mail for multiple

4   users, said target party capable of accessing a designated

5   user account provided by said service provider to thereby

6   access said electronic mail from said data storage means.

1   19.   The system as in claim 18,

2   wherein said means for generating said confirmation of

3   receipt notice comprises receipt informing means, whereby,

4   upon the occurrence of said access event caused by said

5   target party, said target party is informed of the receipt

6   of said electronic mail; and

7   wherein said access event occurs when said target party

8   accesses said designated user account.

20.   The system as in claim 18,
      wherein said access event occurs when said target party
accesses said electronic mail from said data storage means
subsequent to accessing said designated user account.

1   21.   The system as in claim 17,

2   wherein said target system is a user system directly

3   accessible by said target party, said user system including

4   an electronic mail processing software installed on said

5   user system.

1   22.   The system as in claim 21,

-2   wherein said means for generating a confirmation of

3   receipt notice comprises receipt informing means, whereby,

4   upon the occurrence of said access event caused by said

5   target party, said target party is informed of the receipt

6   of said electronic mail; and

7   wherein said access event occurs when said target party

8   accesses said electronic mail processing software.

23.   The system as in claim 21,

        wherein said access event occurs when said target party

accesses said electronic mail subsequent to accessing said
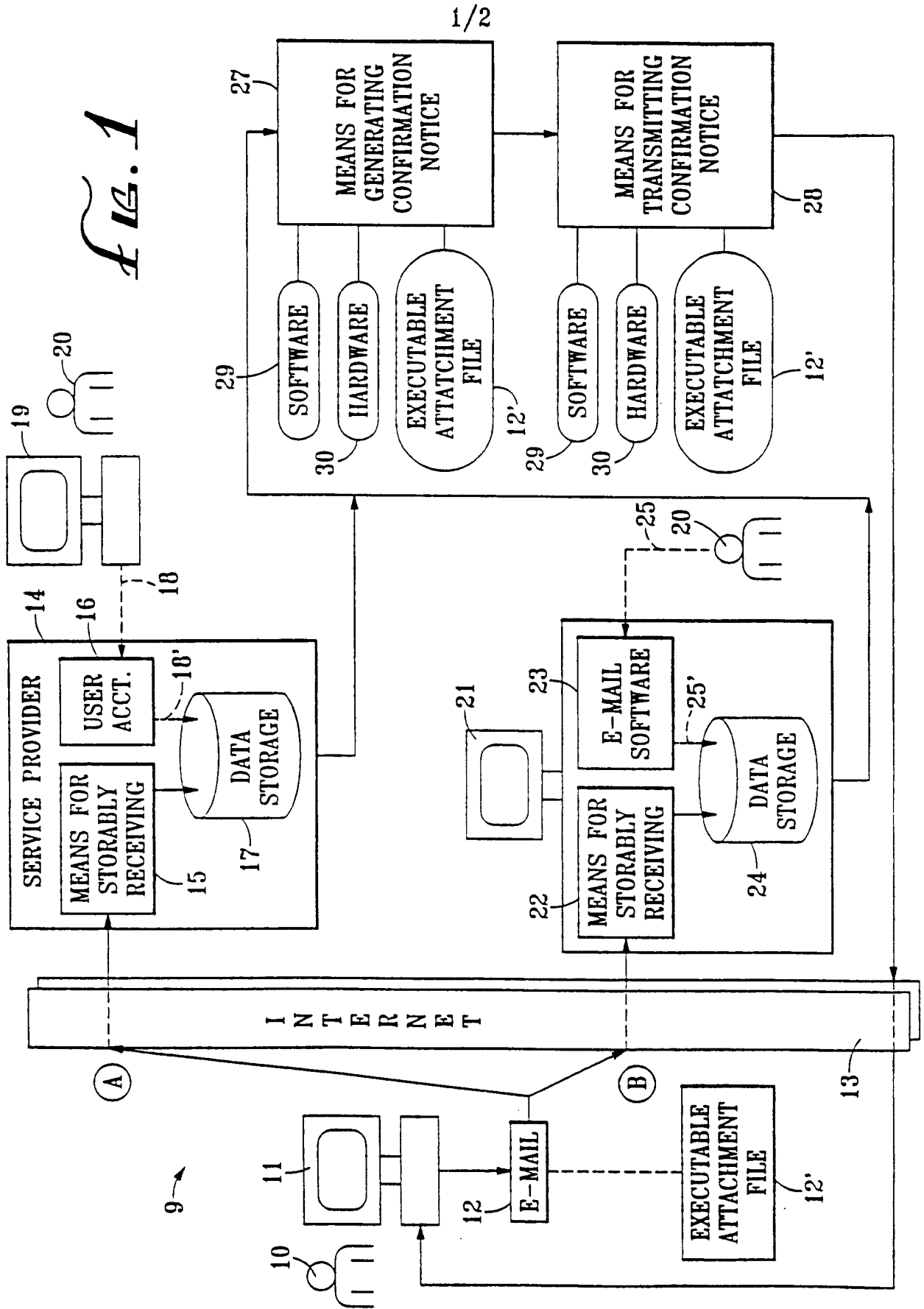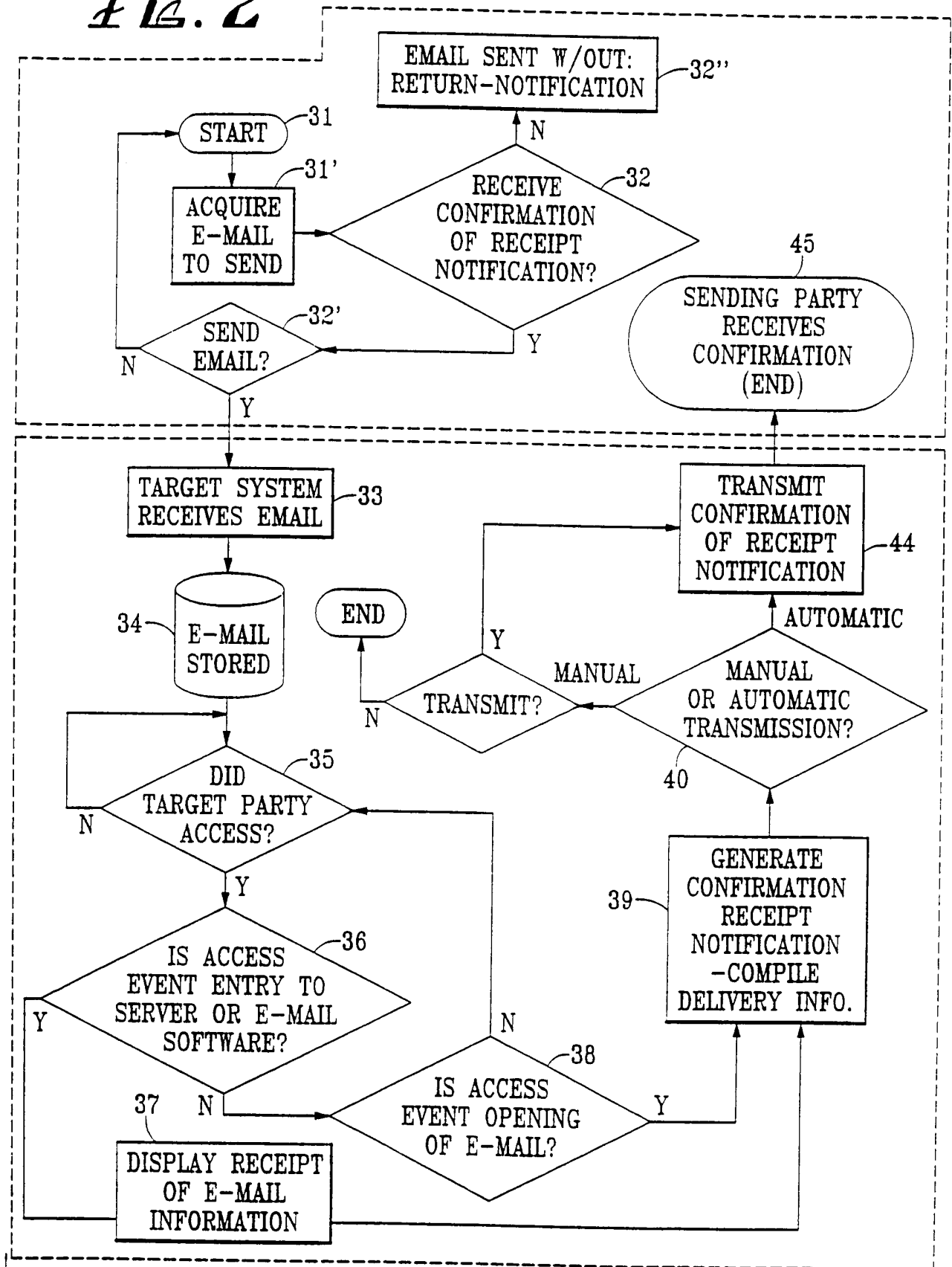
electronic mail processing software.

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Fig. 1

Fig. 2

EMAIL SENT W/OUT:
RETURN-NOTIFICATION — 32"

START — 31

ACQUIRE
E-MAIL
TO SEND — 31'

RECEIVE
CONFIRMATION
OF RECEIPT
NOTIFICATION? — 32

N

Y

SEND
EMAIL? — 32'

N

Y

SENDING PARTY
RECEIVES
CONFIRMATION
(END) — 45

TARGET SYSTEM
RECEIVES EMAIL — 33

E-MAIL
STORED — 34

END

TRANSMIT
CONFIRMATION
OF RECEIPT
NOTIFICATION — 44

TRANSMIT?

Y

N

MANUAL

MANUAL
OR AUTOMATIC
TRANSMISSION? — 40

AUTOMATIC

DID
TARGET PARTY
ACCESS? — 35

N

Y

GENERATE
CONFIRMATION
RECEIPT
NOTIFICATION
-COMPILE
DELIVERY INFO. — 39

IS ACCESS
EVENT ENTRY TO
SERVER OR E-MAIL
SOFTWARE? — 36

Y

N

IS ACCESS
EVENT OPENING
OF E-MAIL? — 38

N

Y

DISPLAY RECEIPT
OF E-MAIL
INFORMATION — 37

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US00/30677

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) :G06F 13/00
US CL :709/206, 207

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)

U.S. : 709/206, 207

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EAST

search terms: recipt, confirm, confirmation, return, notice

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X,P	US 6,014,668 A (VENKATRAMAN et al) 11 January 2000, col. 8, figure 15.	1-23
A,P	US 6,044,205 A (REED et al) 28 March 2000, col. 37.	1-23
A	US 5,850,520 A (GRIEBENOW et al) 15 December 1998.	1-23
A,P	US 6,122,485 A (ARCHER) 19 September 2000.	1-23
A	US 5,893,099 A (SCHREIBER et al) 06 April 1999.	1-23
A	US 6,002,852 A (BIRDWELL et al) 14 December 1999.	1-23

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

*	Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A"	document defining the general state of the art which is not considered to be of particular relevance		
"E"	earlier document published on or after the international filing date	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)		
		"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O"	document referring to an oral disclosure, use, exhibition or other means		
"P"	document published prior to the international filing date but later than the priority date claimed	"&"	document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
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