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11 12	Attorneys for Plaintiffs PITNEY BOWES INC. and PITNEY BOWES SOFTWARE INC.
13 14	UNITED STATES DISTRICT COURT
15	CENTRAL DISTRICT OF CALIFORNIA
	CV09-7373 MMM (RCX)
16 17 18	PITNEY BOWES INC., a Delaware corporation; and PITNEY BOWES SOFTWARE INC., a Delaware corporation, Case No. COMPLAINT FOR PATENT INFRINGEMENT
19	Plaintiffs,
20	v.
21	ZUMBOX, INC., a Delaware
22	corporation,
23	Defendant.
24	
25	Plaintiffs Pitney Bowes Inc. and Pitney Bowes Software Inc., for their
26	Complaint against Defendant Zumbox, Inc., hereby state and allege as follows:
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COMPLAINT FOR PATENT INFRINGEMENT

I.

INTRODUCTION

- 1. This is an action for infringement by Defendant of three United States patents owned by Pitney Bowes Inc. and Pitney Bowes Software Inc. (collectively "Pitney Bowes").
- 2. Plaintiff Pitney Bowes Inc. is a corporation organized and existing under the laws of Delaware, with its principal place of business in Stamford, Connecticut.
- 3. Plaintiff Pitney Bowes Software Inc. is a corporation organized and existing under the laws of Delaware, with its principal place of business in Lanham, Maryland. Pitney Bowes Software Inc. is a wholly owned subsidiary of Pitney Bowes Inc.
- 4. Upon information and belief, Defendant Zumbox, Inc. ("Zumbox") is a corporation organized and existing under the laws of Delaware, with its principal place of business in Westlake Village, California. Upon information and belief, Zumbox purports to provide an alternative to traditional postal systems, through its electronic delivery means.

II.

JURISDICTION AND VENUE

- 5. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1338(a) in that this action arises under the Acts of Congress relating to patents, 35 U.S.C. § 101 et seq.
- 6. Venue is proper in this district pursuant to 28 U.S.C. §§ 1391(b), 1391(c) and 1400(b).
- 7. This Court has personal jurisdiction over Zumbox, and venue is proper, because, upon information and belief, Zumbox is a corporation that conducts business within this judicial district, and has its principal place of business

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within this judicial district. Upon information and belief, Zumbox transacts business in this judicial district by manufacturing, using, selling or offering to sell a product that directly or indirectly infringes the patents at issue in this action.

III.

FACTUAL BACKGROUND

- 8. On January 13, 2009 United States Patent No. 7,478,140, entitled "System and Method for Sending Electronic Mail and Parcel Delivery Notification Using Recipient's Identification Information" was duly and legally issued to Tim King, Alan Slater, Victor Forman and Tim Waggoner ("the '140 patent") (attached as exhibit 1).
- 9. Plaintiff Pitney Bowes Software Inc. is the assignee of all right, title and interest in the '140 patent, including the right to bring this action against Defendant Zumbox for injunctive relief, an accounting and damages.
- 10. On June 6, 2006 United States Patent No. 7,058,586, entitled "Information Delivery System for Providing Senders with a Recipient's Messaging Preferences" was duly and legally issued to Robert A. Law ("the '586 patent") (attached as exhibit 2).
- 11. Plaintiff Pitney Bowes Inc. is the assignee of all right, title and interest in the '586 patent, including the right to bring this action against Defendant Zumbox for injunctive relief, an accounting and damages.
- 12. On February 10, 2004 United States Patent No. 6,690,773, entitled "Recipient Control over Aspects of Incoming Messages" was duly and legally issued to Robert A. Law ("the '773 patent") (attached as exhibit 3).
- 13. Plaintiff Pitney Bowes Inc. is the assignee of all right, title and interest in the '773 patent, including the right to bring this action against Defendant Zumbox for injunctive relief, an accounting and damages.

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IV.

COUNT I

(Claim for Patent Infringement of U.S. Patent No. 7,478,140)

- 14. Paragraphs 1-9 are incorporated into this count by reference.
- 15. Upon information and belief, Defendant Zumbox has been and is now infringing, contributorily infringing or actively inducing infringement of the '140 patent. The infringing acts include making, using, selling or offering for sale in the Central District of California and elsewhere within the United States, without authority, a product (*see e.g.* www.zumbox.com) that infringes, literally or under the doctrine of equivalents, one or more claims of the '140 patent, including, but not limited to, claim 1.
- 16. Plaintiffs have been damaged as a result of Zumbox's infringement of the '140 patent.

COUNT II

(Claim for Patent Infringement of U.S. Patent No. 7,058,586)

- 17. Paragraphs 1-7, 10 and 11 are incorporated into this count by reference.
- 18. Upon information and belief, Defendant Zumbox has been and is now infringing, contributorily infringing or actively inducing infringement of the '586 patent. The infringing acts include making, using, selling or offering for sale in the Central District of California and elsewhere within the United States, without authority, a product (*see e.g.* www.zumbox.com) that infringes, literally or under the doctrine of equivalents, one or more claims of the '586 patent, including, but not limited to, claim 1.
- 19. Plaintiffs have been damaged as a result of Zumbox's infringement of the '586 patent.

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COUNT III

(Claim for Patent Infringement of U.S. Patent No. 6,690,773)

- 20. Paragraphs 1-7, 12 and 13 are incorporated into this count by reference.
- 21. Upon information and belief, Defendant Zumbox has been and is now infringing, contributorily infringing or actively inducing infringement of the '773 patent. The infringing acts include making, using, selling or offering for sale in the Central District of California and elsewhere within the United States, without authority, a product (*see e.g.* www.zumbox.com) that infringes, literally or under the doctrine of equivalents, one or more claims of the '773 patent, including, but not limited to, claim 6.
- 22. Plaintiffs have been damaged as a result of Zumbox's infringement of the '773 patent.

V.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs pray for judgment against Defendant as follows:

- 1. That Defendant has infringed one or more claims of the '140, '586 and/or '773 patents;
- 2. That Defendant, and its respective agents, servants, officers, directors, employees and all persons acting in concert with them, directly or indirectly, be permanently enjoined from infringing, inducing others to infringe, or contributing to the infringement of the '140, '586 and '773 patents;
- 3. That Defendant accounts for and pays to Plaintiffs the damages to which Plaintiffs are entitled as a consequence of infringement of the patents-in-suit;
- 4. That Plaintiffs be awarded pre-judgment interest, their costs and attorneys' fees; and

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5. That Plaintiffs be awarded such other and further relief as the Court may deem just and equitable.

DATED: October 12, 2009 ROBINS, KAPLAN MILLER & CIRESI L.L.P.

By:

Roman M. Silberfeld
David Martinez

Attorneys for Plaintiffs PITNEY BOWES INC. and PITNEY BOWES SOFTWARE INC.

DEMAND FOR JURY TRIAL

Pursuant to Rule 38 of the Federal Rules of Civil Procedure, Plaintiffs demand a jury trial as to all matters so triable.

DATED: October 12, 2009

ROBINS, KAPDAN, MILLER & GIRESI L.L.P.

By:

Roman M. Silberfekt David Martinez

Attorneys for Plaintiffs PITNEY BOWES INC. and PITNEY BOWES SOFTWARE INC.

EXHIBIT 1



(12) United States Patent King et al.

(10) Patent No.:

US 7,478,140 B2

Jan. 13, 2009 (45) Date of Patent:

(54)	SYSTEM AND METHOD FOR SENDING
,	ELECTRONIC MAIL AND PARCEL
	DELIVERY NOTIFICATION USING
	RECIPIENT'S IDENTIFICATION
	INFORMATION

(75) Inventors: Tim King, Elkridge, MD (US); Alan

Slater, Clifton, VA (US); Victor Forman, Tucson, AZ (US); Tim Waggoner, Mitchellville, MD (US)

Assignee: Pitney Bowes Software Inc., Lanham,

MD (US)

Notice: Subject to any disclaimer, the term of this

patent is extended or adjusted under 35 U.S.C. 154(b) by 1584 days.

Mar. 9, 2001 Filed: (22)

Appl. No.: 09/801,725

Prior Publication Data (65)

US 2002/0002590 A1 Jan. 3, 2002

Related U.S. Application Data

- (60) Provisional application No. 60/188,006, filed on Mar. 9, 2000.
- (51) Int. Cl. G06F 15/16 (2006.01)
- (58) Field of Classification Search 709/200, 709/203, 206, 217, 223, 235, 238–239, 245; 283/67, 79; 705/40, 400-418

See application file for complete search history.

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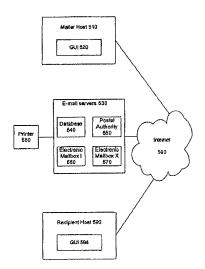
* cited by examiner

Primary Examiner—Khanh Dang (74) Attorney, Agent, or Firm-George M. Macdonald; Steven J. Shapiro; Angelo N. Chaclas

ABSTRACT

The present invention is a system and method for routing e-mails based on the recipient's physical address. The system includes an e-mail server that contains a database that maps physical addresses to e-mail addresses of users. The e-mail server is connected to a network such as the global Internet. The e-mail server includes an electronic mailbox for each physical address in the database. The system also includes a receiving host that is used to connect to the e-mail server via the Internet to enable a recipient user to check e-mail. The e-mail server runs an authoritative process by which user login and password information is checked to assure a secure system. The system also has a parcel delivery notification feature that allows a buyer expecting a parcel to receive delivery status information regarding the particular parcel being shipped to the buyer.

20 Claims, 6 Drawing Sheets



Jan. 13, 2009

Sheet 1 of 6

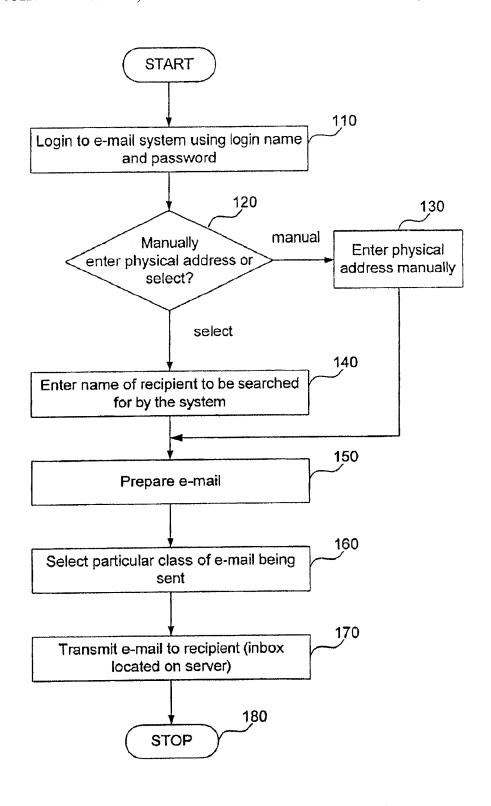


FIG. 1

Jan. 13, 2009

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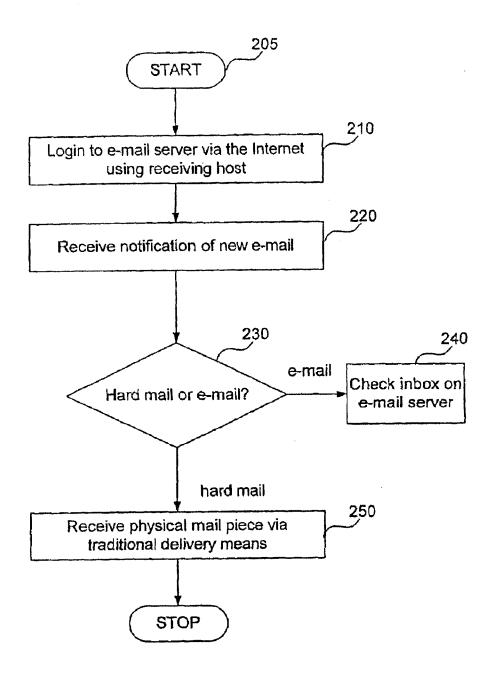
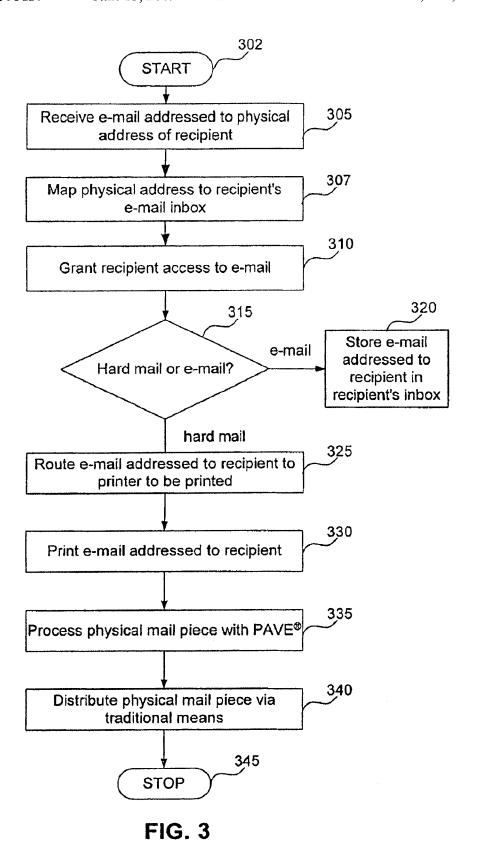


FIG. 2

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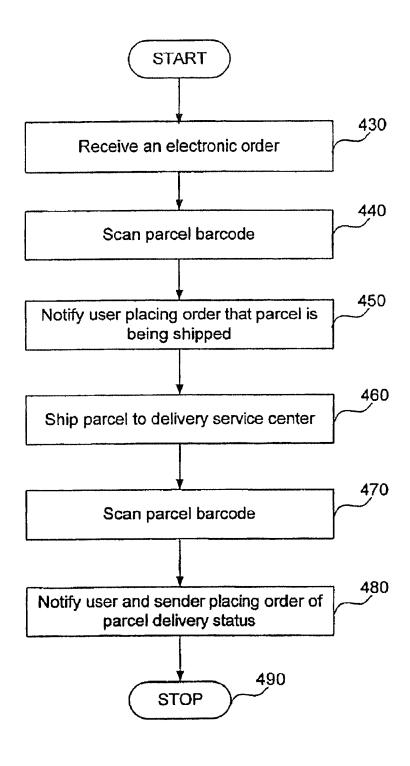


FIG. 4

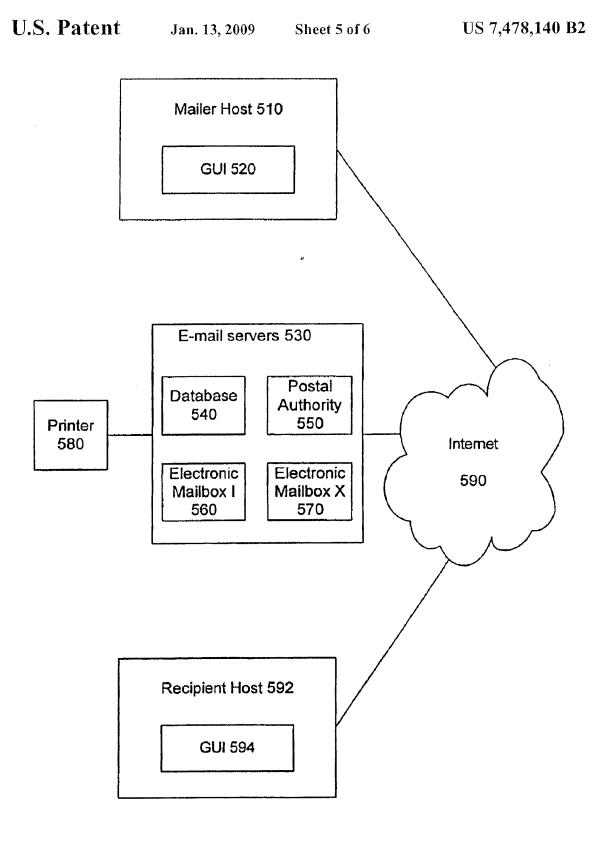
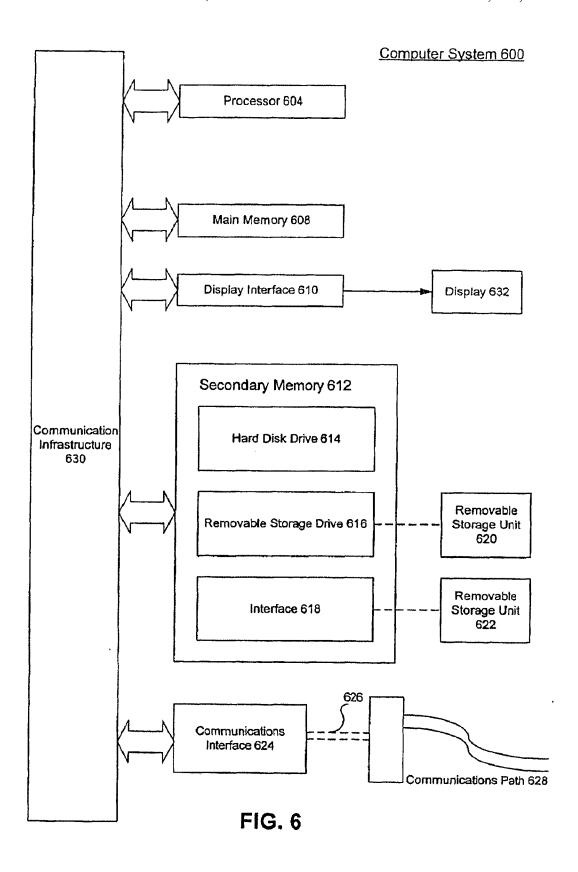


FIG. 5

Jan. 13, 2009

Sheet 6 of 6



US 7,478,140 B2

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SYSTEM AND METHOD FOR SENDING ELECTRONIC MAIL AND PARCEL DELIVERY NOTIFICATION USING RECIPIENT'S IDENTIFICATION INFORMATION

This application claims priority to the provisional application 60/188,006, filed on Mar. 9, 2000, which is incorporated by reference in its entirety herein.

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates generally to routing of electronic mail. More particularly, the present invention relates to using a physical address of a recipient to send an electronic mail message.

2. Related Art

In a conventional electronic mail system, electronic mail (e-mail) is transmitted from a transmitting host to a recipient. 20 flow of the steps a sender of an electronic message executes to However, in such an e-mail system, before the transmitting host transmits an e-mail, a sender at the transmitting host must first specify a unique electronic mail address to which the electronic mail is to be sent. E-mail addresses are abstract in that they do not relate to any physical, identifiable infor- 25 tronically and physically. mation. Furthermore, unlike a home address, most recipients do not have an e-mail account.

For instance, the e-mail address. santa@mailservera.divisionone.com can he used as an e-mail address for the user Santa. There are several problems asso- 30 flow for a method of notifying a recipient with status inforciated with e-mail addresses, however. First, e-mail addresses may change often, due to system users changing service providers. Thus, the sender may not know that the e-mail address of the recipient has changed. Secondly, there are many databases highly utilized by both private industries and 35 public agencies that do not contain e-mail information for users. Thirdly, although one may know Santa is physically located somewhere at the North Pole, the sender wishing to send e-mail to Santa may not be able to remember Santa's exact e-mail address. Finally, and perhaps, most importantly, 40 if the sender makes a typographical error in the e-mail address of the recipient, the piece of e-mail will not be sent.

SUMMARY OF THE INVENTION

Therefore, the present invention provides an e-mail system, an e-mail post office, and a method for forwarding e-mail, by using physical address information of the recipient and mapping that to a constant permanent e-mail address. According to one aspect of the present invention, an e-mail 50 system is provided in which the transmitting host transmits the e-mail addressed to the recipient's physical address (e.g., home or work address).

Thus, the fact that the recipient has selected another service provider without notifying the sender does not hinder elec- 55 tronic communication between the parties. To send electronic mail, the sender only needs to know the name and/or physical address of the recipient. Furthermore, advertising and other mass mailing procedures can be accomplished by using files of existing databases that have been in continuous use for 60 years. The sender can elect to use the system to send e-mail that would later be printed at a postal distribution center and distributed to the recipient via traditional delivery means. Finally, if the sender makes a typographical error in the recipient's physical address, the e-mail can be corrected by propri- 65 ctary software and the mail will still arrive at the recipient's physical address.

Finally, the present invention facilitates parcel delivery by notifying the recipient of a parcel with delivery status information of the parcel while the parcel is en route to the recipient of the parcel.

Further features and advantages of the present invention, as well as the structure and operation of various embodiments of the present invention, are described in detail below with reference to the accompanying drawings.

BRIEF DESCRIPTION OF THE FIGURES

The features and advantages of the present invention will become more apparent from the detailed description set forth below when taken in conjunction with the drawings in which 15 like reference numbers indicate identical or functionally similar elements. Additionally, the left-most digit of a reference number identifies the drawing in which the reference number first appears.

FIG. 1 is a flowchart representing the general operational send e-mail to the recipient using the recipient's physical address.

FIG. 2 is a flowchart representing the general operational flow of the steps the recipient executes to receive mail, elec-

FIG. 3 is a flowchart representing the general operational flow of the steps executed by the e-mail server upon receiving e-mail addressed to the recipient.

FIG. 4 is a flowchart representing the general operational mation of a transmitted parcel.

FIG. 5 is a block diagram of an example electronic mail system in which a sender sends electronic mail to a recipient using the recipient's physical address.

FIG. 6 is a block diagram of an exemplary computer system useful for implementing the invention.

DETAILED DESCRIPTION OF THE PREFERRED **EMBODIMENTS**

The present invention provides an e-mail system, an e-mail post office, and a method for forwarding e-mail, by using physical address information of a recipient. According to one aspect of the present invention, an e-mail system is provided in which the transmitting host transmits an e-mail addressed to the recipient's physical address (e.g., street, P.O. box, rural route and the like). The physical address could be the recipient's home or work address. FIG. 1 depicts the operational flow of the steps of sending an e-mail to a recipient as executed by an e-mail sender. In step 110, a sender initializes the process of transmitting e-mail by logging into the e-mail server using a login name and a password. Typically, the sender will enter the name of the recipient and his/her address. The sender is provided with the option of manually entering a physical address of the recipient or choosing the physical address of the recipient from a sender's list, as shown in step 120. It is contemplated that a conventional e-mail address can also be entered to send a message or to send a carbon copy of the message.

If the sender elects to manually input the physical address of the recipient, he is prompted to input the entire physical address information into a Graphical User Interface (GUI) of an e-mail software package, which has been modified based on the teaching herein, as shown in step 130. For instance, if the sender knows the physical address of the recipient Santa, the recipient can manually enter the address in the address line of the e-mail software application (e.g. Groupwise®, Microsoft Mail®). In such a situation, the sender enters "123 North Pole Lane, NorthPole, U.S.A." The e-mail server then receives the e-mail and determines that that particular e-mail should be routed to Santa's electronic in-box located on an e-mail server. In one embodiment, the e-mail server is main- $^{\,\,5}$ tained by the United States Postal Service (USPS).

Alternatively, using the above-described example, if the sender only knows Santa's name, the sender enters a search mode that would automatically populate an addressee line of the e-mail software package with Santa's physical address upon entry of Santa's name in the search string. Thus, the sender would enter "Santa Claus" (and/or other identifying information) as the search string, in step 140. The system would then respond by automatically placing Santa's address in the addressee field of the e-mail software package and routing the e-mail to Santa's electronic inbox located on the e-mail server. In one embodiment, the address is populated from a proprietary list. In yet another embodiment, the address is populated from a list provided by the sender (e.g., 20 his electronic address book).

In one embodiment, the recipient's address would be hidden from the sender if a proprietary list is used and only the recipient's name would be entered into the addressee line of the e-mail package. In such a system, the sender would only 25 his/her account number and/or password. In one embodibe able to view the recipient's name, but the e-mail would still be routed based on the recipient's physical address.

In yet another embodiment, the recipient's physical address can be determined by searching based on the recipient's telephone number, zip code, state, or by any other infor- 30 account. It is critical that security be maintained on this mation that is useful in the event that the sender does not know the physical address of the recipient. A database would be maintained (e.g., by the USPS) of this information in order to populate the address line of an e-mail. Once again, the populated address (if from other than the sender's own list) will be 35 and delete e-mail messages at this stage. maintained in secrecy in one embodiment.

Prior to routing the e-mail to the recipient, proprietary software, such as Coding, Accuracy, Support System (CASS) certified software, can be used to correct typographical errors in the entered address. Other types of errors can also be corrected by the CASS certified software. For example, the CASS certified software can enhance the address to include such things as zip codes or directional designations (e.g., NW, SE, etc.) Code-1 Plus®, which is a product available from Group 1 Software of Lanham, Md., can be used in this regard. Regardless of what the sender enters as the search string, the e-mail server would route the e-mail to the recipient's inbox (located on the e-mail server) using the recipient's physical address. In one embodiment, the sender can designate that the CASS certified software not be used. In such an embodiment, as well as other embodiments, the e-mail server will send a message back to the sender if the address is not valid.

In step 150, the sender can type, scan, or attach the e-mail that is to be sent to the recipient. It should be noted that the sender need not know the location of the particular e-mail

In one embodiment, e-mail is divided into classes and prioritized. Such classes may or may not correspond to the existing classes of mail of the U.S. Postal Service. Each class 60 is represented by an E-designator stamp. Thus, in step 160 the sender selects the particular class of e-mail being sent.

For example, if the sender wishes to send important first class e-mail the sender enters "E-designator-first-class" in a GUI of an e-mail software package being used. The e-mail 65 server contains a mail control file for the particular user indicating that "E-designator-first-class" types of mail should

be printed in hard copy form and distributed via traditional distribution means. The mail control file is configurable by the recipient.

If the sender wishes to send fourth class e-mail, the sender enters "E-designator-fourth-class" in the GUI of the e-mail software package being used. In such a situation, the e-mail server contains a file indicating that "D-designator-fourthclass" types of mail should be stored in the inbox of the particular recipient. In step 170, the sender transmits e-mail. An e-mail can also be tagged as time sensitive. Thus, an e-mail will only be saved in the inbox of the recipient for a predetermined amount of time (e.g., one week).

Finally, control ends with step 180.

In one embodiment, electronic document system software, 15 such as DOC-1® available from Group 1 Software, can be used to send electronic copies of bills (e.g., Electric, Phone, Mortgage, etc.) or other electronic documents. This software maintains the look of the document such that the recipient cannot tell the difference between an electronic copy of the document or a document that is received via traditional mail.

FIG. 2 depicts the operational flow of the steps executed by the e-mail recipient to retrieve e-mail messages. In step 210, the recipient logs into the e-mail server via a recipient host (e.g., a home computer). The recipient will be asked for ment, the recipient's account number may be his physical address. A cookie can be used to access the e-mail account. The present invention also contemplates using biometric data (e.g., fingerprint, retina, etc.) to gain access to the e-mail account. Upon logging into the e-mail server via, e.g., the Internet, the recipient receives a notification of new e-mail in step 220. A direct connection can also be used to connect to the e-mail server. The recipient is allowed to view, respond

Recipients may not always want to access their e-mail account. Therefore, the present invention allows a recipient to designate traditional mail as an option. In step 230, the recipient is prompted regarding whether he desires to automatically receive a hard copy of the e-mail sent by the sender or only the actual e-mail sent by the sender. Thus, in one embodiment, mail is automatically distributed by a postman without first logging into the e-mail server and checking the particular inbox. In another embodiment, the recipient may wish to have some mail routed via traditional delivery means only after having viewed the e-mail.

If the recipient elects to receive an electronic copy of the actual e-mail sent by the sender, the e-mail sent by the sender is stored in the recipient's inbox located on the e-mail server, in step 240. If the recipient elects to receive a hard copy of the e-mail sent by the sender, the e-mail is routed to a printer and the recipient receives a physical mailpiece by traditional mail delivery means, in step 250. Finally, control ends with step

E-mails forwarded via traditional mail can be stored in the recipient's inbox for later viewing. In another embodiment, e-mails that are forwarded via traditional mail are deleted immediately or after some designated period of time. In yet another embodiment, the recipient may designate certain classes of e-mail to be routed via traditional mail and yet other classes to be stored as electronic mail only. For example, the recipient can automatically receive important mail (e.g. first class mail) as a physical mailpiece, without first logging into the e-mail server. In such a situation, the recipient specifies in the recipient's mail control file that all first class e-mail should be printed and sent via traditional means. E-mail that is eventually printed and becomes physical mail is known as Hybrid mail. It should be noted that this electronic mail would not necessarily be traditional e-mail. Much of the e-mail received by the recipient can be an electronic version of the physical mailpiece the sender would have sent via regular mail

The recipient's mail control file can contain E-designators. The E-designators represent the various classes of e-mail and indicate which classes are to be printed and which classes are to be electronically stored in the recipient's inbox. The classes correspond to the traditional mail classes currently 10 used by the U.S. Postal Service, but do not necessarily have to correspond.

If e-mail received by the recipient is of a class that is to be printed (e.g. first class mail, as specified in the recipient's mail control file), this hybrid mail would be printed at a mail distribution center and then routed to the physical address of the recipient via traditional mail transporting means (e.g. a letter carrier). In another embodiment, the system sends a notification or a copy of the hybrid mail to the recipient's inbox on the e-mail server. If e-mail received by the recipient 20 is not of a class that is to be printed (e.g., third class mail, as specified in the recipient's mail control file), the e-mail will be stored in the recipient's inbox located on the e-mail server. The recipient could also specify that certain classes of e-mail be deleted (e.g., advertisements).

In yet another embodiment, the recipient can login to the e-mail server and change corresponding identification information. Thus, this would effectively create an electronic National Change of Address (NCOA) program. The recipient will be allowed to designate whether this change can be made 30 public or maintained in secrecy.

In still yet another embodiment, a notice can be automatically sent, via e-mail, to the sender that a document has been received and opened by a recipient. This e-mail can include the date and time the e-mail was opened. This will allow 35 day/time certain delivery of mail/messages and an electronic trail of the entire transaction.

FIG. 3 is a flowchart representing the general operational flow of the steps executed by the e-mail server, upon receiving e-mail addressed to a recipient. In step 305, the e-mail arrives at the e-mail server. The e-mail server maps a physical address to a recipient, as shown in step 307. In one embodiment, this function is performed via a database. The e-mail server includes a database with the name, address, and account information (i.e., recipient's e-mail box). Thus, the server can merely look up a recipient's e-mail in-box (or address) by using the physical address. In an alternate embodiment, a recipient's traditional e-mail address can also be stored in the database. Thus, a received e-mail can also be routed to a recipient's personal account (e.g., Microsoft, Hotmail, Erols, etc.). Other information can be stored in the database as should be apparent to one skilled in the art.

The e-mail is stored in the inbox of the particular recipient on the e-mail server. After the recipient logs into the e-mail server by connecting via the Internet, or some other means, using the recipient host, in step 310, an authoritative process stored on the e-mail server grants the recipient access to the recipient's e-mail stored in the recipient's inbox on the e-mail server.

In step 315, the system prompts the recipient regarding the 60 desired form of communication to be received. The e-mail server either receives input from the recipient indicating that the recipient wishes to receive hybrid mail or a copy of the actual e-mail that was transmitted by the sender.

It should be noted that the e-mail does not have to be 65 downloaded. It can be read on-line in virtually any electronic format and either archived or deleted. If the e-mail server

receives input from the recipient indicating that the recipient wishes to receive a copy of the actual e-mail that was transmitted by the sender, the e-mail server stores e-mail addressed to the recipient in the recipient's inbox on the e-mail server, in step 320. If the e-mail server receives input from the recipient indicating that the recipient wishes to receive hybrid mail, the e-mail server routes the e-mail for the recipient to a printer, in step 325. In step 330, the physical mailpiece is then printed. In step 335, the physical mailpiece is electronically processed using Presort, Accuracy, Validation, and Evaluation (PAVE®) software. One such product is MailStream Plus®, which is available from Group 1 Software of Lanham, Md. This software presorts the mail in accordance with USPS regulations to maximize postage discounts. In step 340, the physical mailpiece is distributed via traditional distribution means. Finally, control ends with step 345.

In another embodiment, the e-mail server can read information stored in the recipient's mail control file to determine particular classes for which the recipient has chosen to receive a physical mailpiece. Such a determination is made based on the E-designators specified in the particular recipient's mail control file. In one embodiment, separate folders can be created for each class of e-mail. Of course, this feature can be customized based on the recipient's needs.

For example, the recipient specifies that the recipient desired all first class e-mail to be distributed via traditional mail delivery means. Such e-mail is stamped with a "First-class-E-designator." In such a case, when the e-mail server receives mail from the sender with that particular E-designator, the e-mail server routes the particular message to the printer. The printer prints a physical copy of the e-mail, and the postal service then delivers the physical mailpiece via traditional delivery means.

After this hybrid mail is printed, it is presorted by Presort, Accuracy, Validation, and Evaluation (PAVE®) software. Planet codes, information rich barcodes and other data can be appended to the document. The e-mail is then routed to the physical address specified by the sender via traditional mail transporting means (e.g. a letter carrier). In yet another embodiment, the system sends a notification or a copy of the hybrid mail to the recipient's inbox on the e-mail server. The system assigns a unique identifier for each piece of hybrid mail. This allows the system to account for spoilage by allowing the re-creation of damaged mail and the placement back into the mailstream. The unique identifier can also be forwarded to the local USPS location so that the facility can know what is coming, verify postage, plan transportation, etc.

If the e-mail server receives mail from the sender with a particular R-designator stamp that indicated that it should not be printed, the e-mail server stores the e-mail in the recipient's inbox.

FIG. 4 depicts the operational flow for the process in which parcels are processed. An order is placed by a user wishing to receive a parcel (step not shown in FIG. 4). For example, a recipient desiring to receive a pair of shoes from a catalog distribution center, logs into the email server using his host. The user desiring to receive the parcel then enters the parcel delivery system of the sender distribution center. After entering the system, the user desiring to receive the parcel places an order for the shoes electronically by answering a series of questions, including being prompted for physical address information.

In step 430, the sender of the parcel receives the electronic order, generates electronic postage, and places a barcode label on the parcel using Information-Based Indicia (IBI)® or Information-Rich Barcode (IRB)® software. The barcode is generated based off of the information taken from the elec-

tronic order placed by the user and other information automatically generated by the Information-Rich Barcode (IRB)® or Information-Based Indicia (IBI)® software (e.g. a tracking number).

In step 440, the sender scans the barcode label. In step 450, upon scanning the barcode label, the recipient of the parcel is notified via e-mail that his parcel is currently being shipped. Once again, only the physical address and/or name of the recipient (e.g., the buyer) of the package is used to send the e-mail notification. Other information such as a tracking number, expected shipping date, expected delivery date, and delivery service is included in the e-mail sent to the buyer who placed the parcel order.

In step 460, the parcel is shipped from the catalog distribution center to a delivery service center. In step 470, upon 15 a virtual station at the USPS facility. Alternatively, the recipiarrival at the delivery service center, the parcel is scanned again. In step 480, upon scanning, the e-mail server automatically sends another electronic notification message to the recipient that the parcel has arrived. The e-mail server also sends an electronic message to the sender that the parcel was 20 delivered. Finally, control ends with step 490.

In another embodiment, the system can be used to return merchandise. An e-tailer can allow a recipient of a package to print a return label with postage using IBI/IRB software. The return label can be scanned by USPS (for example), which will result in an e-mail being forwarded to the original package recipient and e-tailer. The e-tailer can scan the package upon receipt, thus generating a final e-mail back to the original package recipient (consumer).

FIG. 5 is a block diagram illustrating the physical architecture of an e-mail routing system 500, according to an embodiment of the present invention. It should be understood that the particular e-mail routing system 500 in FIG. 5 is shown for illustrative purposes only and does not limit the invention. As would be apparent to one skilled in the relevant art, recipient host 580 and senderr host 510 can be directly connected to e-mail server 530, and sender host 510 can be directly connected to e-mail server 530.

Mailer host 510 is a host allowing the sender (also referred 40 to as a mailer) to connect to the e-mail server 530. The sender uses Graphical User Interface (GUI) 520 to e-mail the recipient. Upon connecting to e-mail server 530, the sender enters a physical address into the GUI 520 manually, or the sender selects from the list of information provided by proprietary database 540. Once again, a sender's database located on the sender host 510 can also be used.

The e-mail routing system 500 includes e-mail server 530. E-mail server 530 includes database 540. Database 540 can be any database system known to one skilled in the art such as 50 Oracle or Sybase. E-mail server 530 also contains postal authority 550. Postal authority 550 is an authoritative process running on e-mail server 530 that performs security checking. Electronic mailbox 560 represents the electronic mailbox of one particular recipient, and electronic mailbox 570 repre- 55 sents the electronic mailbox of another recipient. Thus, each recipient has an electronic mailbox where the e-mail for that particular recipient is stored. In one embodiment, each member of a household can have a separate electronic mailbox. The only limitation to the number of electronic mailboxes is 60 the physical constraints of the server 530.

The e-mail server 530 can also be adapted to forward e-mails via wireless communication. Thus, any of the e-mail messages described herein can be sent to a recipient's PDA, cell phone, laptop, etc. automatically. Alternatively, the 65 recipient can designate which, if any, e-mail messages will be forwarded using wireless communication.

Printer 592 can be any printer traditional network printer and is used by e-mail server 530 to print hard copies of e-mail in the situation where the recipient has specified receiving mail in hard copy form (i.e. hybrid mail). The printer can be located local to the e-mail server 530 or at a geographically remote site, such as the recipient's local USPS facility.

Recipient host 580 is used by the recipient to connect to e-mail server 530 via Internet 598. Recipient host 580 contains GUI 590. The recipient uses GUI 590 to check the recipient's e-mail stored in electronic mailbox 560. In one embodiment GUI 590 can be used by the recipient to specify whether the recipient desires to receive physical mail or e-mail or a combination thereof.

In yet a further embodiment, the recipient host 580 may be ent host 580 may be a kiosk in a shopping mall or street corner. Thus, a recipient could access his e-mail account from anywhere in the world.

The present invention may be implemented using hardware, software or a combination thereof and may be implemented in one or more computer systems or other processing systems. In fact, in one embodiment, the invention is directed toward one or more computer systems capable of carrying out the functionality described herein. An example of a recipient host 580, sender host 510 or e-mail server 530 is shown in FIG. 6. The computer system 600 includes one or more processors, such as processor 604. The processor 604 is connected to a communication infrastructure 606 (e.g., a communications bus, cross-over bar, or network). Various software embodiments are described in terms of this exemplary computer system. After reading this description, it will become apparent to a person skilled in the relevant art(s) how to implement the invention using other computer systems and/or computer architectures.

Computer system 600 can include a display interface 602 that forwards graphics, text, and other data from the communication infrastructure 606 (or from a frame buffer not shown) for display on the display unit 630.

Computer system 600 also includes a main memory 608, preferably random access memory (RAM), and may also include a secondary memory 610. The secondary memory 610 may include, for example, a hard disk drive 612 and/or a removable storage drive 614, representing a floppy disk drive, a magnetic tape drive, an optical disk drive, etc. The removable storage drive 614 reads from and/or writes to a removable storage unit 618 in a well known manner. Removable storage unit 618, represents a floppy disk, magnetic tape, optical disk, etc. which is read by and written to by removable storage drive 614. As will be appreciated, the removable storage unit 618 includes a computer usable storage medium having stored therein computer software and/or data.

In alternative embodiments, secondary memory 610 may include other similar means for allowing computer programs or other instructions to be loaded into computer system 600. Such means may include, for example, a removable storage unit 622 and an interface 620. Examples of such may include a program cartridge and cartridge interface (such as that found in video game devices), a removable memory chip (such as an EPROM, or PROM) and associated socket, and other removable storage units 622 and interfaces 620 which allow software and data to be transferred from the removable storage unit 622 to computer system 600.

Computer system 600 may also include a communications interface 624. Communications interface 624 allows software and data to be transferred between computer system 600 and external devices. Examples of communications interface 624 may include a modem, a network interface (such as an Eth-

ernet card), a communications port, a PCMCIA slot and card, etc. Software and data transferred via communications interface 624 are in the form of signals 628 which may be electronic, electromagnetic, optical or other signals capable of being received by communications interface 624. These signals 628 are provided to communications interface 624 via a communications path (i.e., channel) 626. This channel 626 carries signals 628 and may be implemented using wire or cable, fiber optics, a phone line, a cellular phone link, an RF link and other communications channels.

In this document, the terms "computer program medium" and "computer usable medium" are used to generally refer to media such as removable storage drive 614, a hard disk installed in hard disk drive 612, and signals 628. These computer program products are means for providing software to 15 computer system 600. The invention is directed to such computer program products.

Computer programs (also called computer control logic) are stored in main memory 608 and/or secondary memory 610. Computer programs may also be received via commu- 20 nications interface 624. Such computer programs, when executed, enable the computer system 600 to perform the features of the present invention as discussed herein. In particular, the computer programs, when executed, enable the processor 604 to perform the features of the present invention. 25 as time sensitive by said party. Accordingly, such computer programs represent controllers of the computer system 600.

In an embodiment where the invention is implemented using software, the software may be stored in a computer program product and loaded into computer system 600 using 30 removable storage drive 614, hard drive 612 or communications interface 624. The control logic (software), when executed by the processor 604, causes the processor 604 to perform the functions of the invention as described herein.

In another embodiment, the invention is implemented primarily in hardware using, for example, hardware components such as application specific integrated circuits (ASICs). Implementation of the hardware state machine so as to perform the functions described herein will be apparent to persons skilled in the relevant art(s).

In yet another embodiment, the invention is implemented using a combination of both hardware and software.

CONCLUSION

While various embodiments of the invention have been described above, it should be understood that they have been presented by way of example, and not limitation. It will be apparent to persons skilled in the relevant art that various changes in form and detail may be made therein without 50 departing from the spirit and scope of the invention. This is especially true in light of technology and terms within the relevant art(s) that may be later developed. Thus the invention should not be limited by any of the above-described exemplary embodiments, but should be defined only in accordance 55 with the following claims and their equivalents.

What is claimed is:

1. A system for routing e-mails, comprising:

a server that includes a database, said database including a mapping from a physical mailing address to an e-mail 60 address, wherein said server including means for mapping a physical mailing address to an address of an electronic mailbox upon receipt of an e-mail from a party, said server is connected to a network, said server further including an electronic mailbox for each physi- 65 cal mailing address, wherein said electronic mailbox is associated with an account number and password; and

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- a recipient host that includes a web browser, said recipient host connected to said network, wherein said host can access said electronic mailbox on said server using said account number and said password.
- 2. The system of claim 1, wherein said server provides means for allowing said recipient to request that said e-mail be printed and forwarded via traditional mail using the physical mailing address.
 - 3. The system of claim 1, wherein
 - said server provides a graphical user interface that allows a recipient to select whether electronic mail is delivered to said electronic mailbox or is delivered via traditional
 - 4. The system of claim 1, further comprising
 - a mailer host that includes a web browser, said mailer host connected to said network, wherein said mailer host includes a graphical user interface that allows said server to forward an e-mail to said recipient using said physical mailing address.
 - 5. The system of claim 1, further comprising
 - an interface that allows a party to send an e-mail using a physical mailing address, said interface providing means for correcting said physical mailing address.
- 6. The system of claim 5, wherein said e-mail can be tagged
 - 7. The system of claim 1, wherein,
 - said e-mail address comprises a traditional e-mail address.
- 8. A method for routing e-mail, comprising the following
- allowing a user to specify a physical mailing address of a recipient to whom the e-mail is to be sent; and
- performing a mapping function on a server, said mapping function mapping said physical mailing address of said recipient to an e-mail address of said recipient.
- 9. The method of claim 8, further comprising the step of allowing said recipient to choose between receiving a physical mailpiece and an e-mail, wherein if said recipient chooses to receive e-mail, then storing the e-mail in an electronic mailbox for said recipient; and wherein if said recipient chooses to receive physical mail, then routing the e-mail to a printer where the e-mail is printed and delivered via traditional mail delivery means.
- 10. The method of claim 9, further comprising the steps of: associating said e-mail with one of a plurality of classes via an E-designator tag; and
- specifying said classes for which said recipient desires to receive a physical mailpiece and said classes for which said recipient desires to receive e-mail.
- 11. The method of claim 8, further comprising storing the e-mail in an electronic mailbox, wherein said electronic mailbox is associated with said recipient.
- 12. The method of claim 11, further comprising allowing said recipient to access said electronic mailbox using an account number and password.
- 13. The method of claim 11, further comprising requiring said recipient to enter biometric data to access said electronic mailbox.
- 14. The method of claim 8, further comprising printing the e-mail and mailing it to said recipient via traditional mail delivery means.
- 15. The method of claim 8, further comprising allowing said user to associate the e-mail with a class of service selected from a plurality of classes.
- 16. The method of claim 8, wherein,
- said e-mail address comprises a traditional e-mail address.
- 17. A method for routing e-mail, comprising the following steps:

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- receiving an e-mail addressed using a physical address of a recipient, wherein said e-mail has a designator tag that associates said e-mail with one or a plurality of classes of service;
- performing a mapping function on a server upon receipt of said e-mail, said mapping function mapping said physical address of said recipient to an e-mail address of said recipient;
- specifying said classes for which said recipient desires to receive a physical mailpiece and said classes for which said recipient desires to receive an actual copy of the e-mail in a mail control file;
- storing the e-mail in an electronic mailbox of said recipient; and
- if said recipient chooses to receive physical mail, then routing the e-mail to a printer where the e-mail is printed, delivering the e-mail via traditional mail delivery means, and electronically notifying said recipient and sender that a physical copy of the e-mail was sent to 20 said recipient.
- 18. The method of claim 17, wherein, said e-mail address comprises a traditional e-mail address.
 - 19. A system for routing e-mails, comprising:
 - a server that includes a database, said database including a mapping from a physical mailing address to an e-mail address, wherein said server is connected to a network,

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- said server further including an electronic mailbox for each physical mailing address, wherein
- said electronic mailbox is associated with an account number and password, wherein
- said server includes a mail control file containing E-designators, said E-designators representing classes of service; and
- a recipient host, said host being able to access e-mails on said server using said account number and said pass-
- 20. A method for parcel delivery notification, comprising the following steps:
 - (a) receiving an electronic order for a parcel;
 - (b) generating a parcel barcode;
 - (c) scanning a parcel barcode;
 - (d) sending an e-mail to a buyer who placed said electronic order by e-mail, wherein a physical mailing address of said buyer is used to send said e-mail, said step (d) occurring upon executing said scanning step (c);
 - (e) shipping the parcel to a parcel delivery center;
 - (f) scanning the parcel barcode at said parcel delivery center; and
 - (g) electronically notifying said buyer who placed said electronic order by e-mail, wherein said physical mailing address of said buyer is used to send said e-mail, said step (g) occurring upon executing said step (f).

* * * *

EXHIBIT 2



US007058586B1

(12) United States Patent

Law

(54) INFORMATION DELIVERY SYSTEM FOR PROVIDING SENDERS WITH A RECIPIENT'S MESSAGING PREFERENCES

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 1212 days.

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(51) Int. Cl. G06F 17/60

(2006.01)

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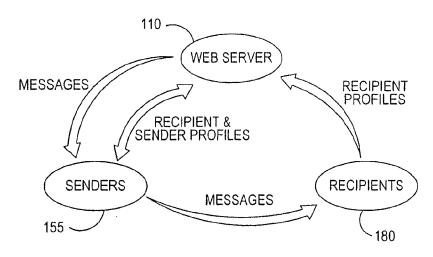
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Primary Examiner—John W. Hayes Assistant Examiner—Akiba Robinson-Boyce (74) Attorney, Agent, or Firm—Angelo N. Chaclas; Steven J. Shapiro; George M. Macdonald

(57) ABSTRACT

An information delivery system includes a web server in operative communication with a plurality of recipients and a plurality of senders, the plurality of senders desirous of generating messages intended for the plurality of recipients, respectively. The web server includes a plurality of recipient preference profiles corresponding to the plurality of recipients, respectively, and a plurality of sender profiles corresponding to the plurality of senders, respectively. Each of the recipient preference profiles includes respective information directed to the recipient's preferences for receiving messages and the web server provides the plurality of senders with access to the plurality of recipient preference profiles. The web server maintains a relationship between a log of recipient preference profiles out of the plurality of recipient preference profiles that have been accessed by a particular sender. For each of the recipient preference profiles in the log of recipient preference profiles, the web server provides a change notification to the particular sender of a change in the recipient preference profile.

18 Claims, 3 Drawing Sheets



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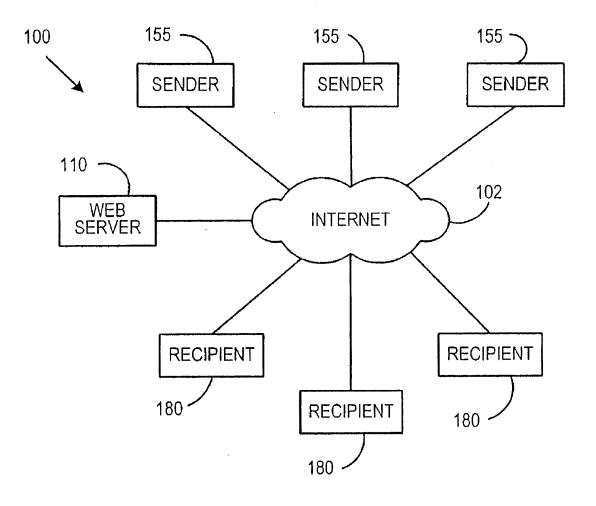


FIG. 1

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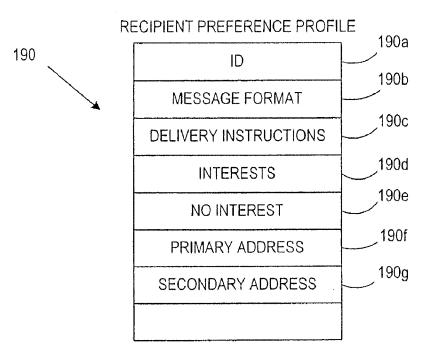


FIG. 2

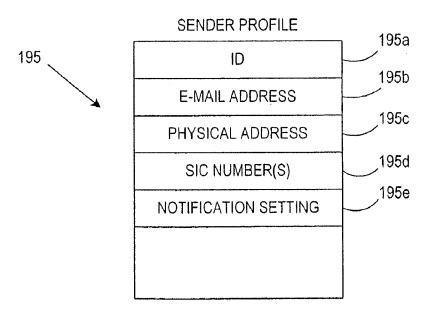


FIG. 3

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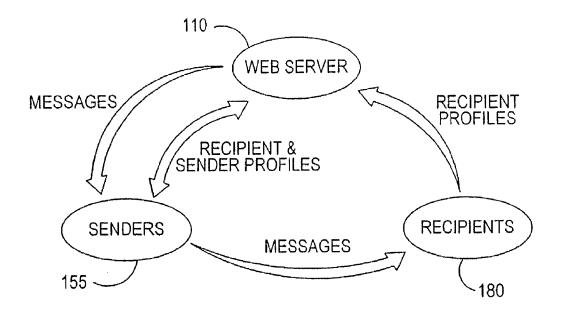


FIG. 4

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INFORMATION DELIVERY SYSTEM FOR PROVIDING SENDERS WITH A RECIPIENT'S MESSAGING PREFERENCES

CROSS REFERENCE TO RELATED APPLICATIONS

This application is related to the following co-pending applications filed concurrently herewith and commonly assigned to the assignee of this application: US Patent 10 Application Number 09/588,443, entitled MESSAGING SYSTEM HAVING RECIPIENT PROFILING and U.S. patent application Ser. No. 09/588,853, entitled RECIPIENT CONTROL OVER ASPECTS OF INCOMING MES-SAGES, both of which are specifically incorporated herein 15 by reference.

FIELD OF THE INVENTION

This invention relates generally to information delivery systems. More particularly, in the preferred embodiments, this invention is directed to techniques allowing a recipient, receiving messages from a plurality of different senders desiring to communicate with the recipient, to control various aspects of the messages techniques for ensuring that the senders have access to updated recipient preferences.

BACKGROUND OF THE INVENTION

Traditionally, recipients (individuals, businesses and households) have had little opportunity to influence the mail 30 that is sent to them. Merely having a post office address has served as an open invitation to mailers (one type of message senders) wishing to communicate with the recipient. Historically, recipients have been limited in their ability to control any aspects of the mail. On the other hand, senders 35 understand little about the messaging preferences of the recipients and their interests.

Many factors place increased demands on the effectiveness of messages. First, the costs of generating and delivering messages is always increasing. Second, senders must compete for the recipient's attention due to the large number of messages that are typically received. Third, recipients need timely and easy access to their messages so that they are able to retrieve and discern them efficiently. Numerous other factors exist.

Generally, various postal authorities around the world 45 provided some narrow ability for a recipient to control the mail. One service is mail forwarding where the mail is redirected from an original address specified by the sender to another address specified by the recipient. This service may be utilized when the recipient moves. Although this 50 service generally works well, it suffers from certain drawbacks and disadvantages. As an example, delays are typically involved in redirecting the mail. Furthermore, the sender is typically unaware of the new address and may continue to send subsequent mail to the old address. Address 55 correction databases that contain updated information about the recipient's address are only updated periodically and must be accessed by the sender to obtain that new information. This delay has potential negative consequences for both the sender and the recipient. As another example, delivery costs for the postal authority are increased because the mail 60 is often routed to the old address before being forwarded to the new address. Therefore, due to all of the above, the sender and the recipient suffer a loss in quality of service while cost for the postal authority increase.

authority and described above, the recipient who has moved may attempt to provide various senders with the new address. However, this is time consuming and generally not very effective since it may only pertain to physical mail.

Another type of service is mail holding where the mail is held by the postal authority and not delivered to the recipient. This service may be utilized when the recipient is away from home for a period of time. Although this service generally works well, it suffers from certain drawbacks and disadvantages. As an example, mail tends to collect at the postal authority facilities and this increases storage and handling costs for the postal authority. Furthermore, the sender is typically unaware of the hold that has been placed on delivery and may continue to send subsequent mail believing that the recipient is receiving mail. This compounds the storage problem for the postal authority and the timeliness issue for the sender and the recipient.

Therefore, due to all of the above, the sender and the recipient suffer a loss in quality of service while costs for the postal authority are generally increased. As a result, there is a need for improved exchange of information between the recipients and the senders that allow for a more efficient and effective process for senders to provide recipients with messages.

SUMMARY OF THE INVENTION

The present invention provides a information delivery system and methods for improving the collection and dissemination of recipient preferences for messages. Generally, this is accomplished by collecting recipient preference data and making it available to a plurality of senders for their use in preparing messages intended for a selected recipient.

In accordance with the present invention, there is provided an information delivery system includes a web server in operative communication with a plurality of recipients and a plurality of senders, the plurality of senders desirous of generating messages intended for the plurality of recipients, respectively. The web server includes a plurality of recipient preference profiles corresponding to the plurality of recipients, respectively, and a plurality of sender profiles corresponding to the plurality of senders, respectively. Each of the recipient preference profiles includes respective information directed to the recipient's preferences for receiving messages and the web server provides the plurality of senders with access to the plurality of recipient preference profiles. The web server maintains a relationship between a log of recipient preference profiles out of the plurality of recipient preference profiles that have been accessed by a particular sender. For each of the recipient preference profiles in the log of recipient preference profiles, the web server provides a change notification to the particular sender of a change in the recipient preference profile.

In accordance with the present invention, a method of operating a web server and a data structure are also pro-

Therefore, it is now apparent that the present invention substantially overcomes the disadvantages associated with the prior art. Additional advantages of the invention will be set forth in the description that follows, and in part will be obvious from the description, or may be learned by practice of the invention. The objects and advantages of the invention may be realized and obtained by means of the instrumentalities and combinations particularly pointed out in the appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying drawings, which are incorporated in In addition to or as an alternative to notifying the postal 65 and constitute a part of the specification, illustrate presently preferred embodiments of the invention, and together with the general description given above and the detailed descrip-

tion of the preferred embodiments given below, serve to explain the principles of the invention. As shown throughout the drawings, like reference numerals designate like or corresponding parts.

FIG. 1 is a simplified representation of an information delivery system including a web server, a plurality of plurality of recipients and a plurality of senders, all in electronic communication with the web server, in which the present invention may be incorporated.

FIG. 2 is a schematic representation of a template for a recipient preference profile describing various parameters intended to control aspects of messages sent by the senders that are intended for the recipient, in accordance with the present invention.

FIG. 3 is a schematic representation of a template for a sender profile describing various parameters intended to control aspects of how and when the web server communicates recipient preference profile data to the sender, in accordance with the present invention.

FIG. 4 is a schematic diagram of information flow between the web server, the recipients and the senders that ²⁰ facilitates the delivery of recipient preference profile data to the senders in accordance with the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to FIG. 1, an example of an information delivery system 100 in which the present invention may be incorporated is shown. The information delivery system 100 includes a web server 110, a plurality of recipients 180 and a plurality of senders 155. The plurality of recipients 180 and the plurality of senders 155 are in communication with the web server 110 over any suitable communication network (LAN, WAN, telephone line, Internet, etc.) 102. In conventional fashion, the web server 110 may be any computer system (hardware, operating system, Web server application software, TCP/IP protocols and the Web site content or pages) that provides World Wide Web services on the Internet. Generally, the web server 180 collects message preference data from the recipients 180 and makes it available to the senders 155 so that the senders $\overline{155}$ may more 40 efficiently and effectively communicate their messages to the recipients 180. Therefore, those skilled in the art will recognize that the web server 110 may employ any suitable combination of computer hardware and software (control system) to facilitate the storage, access and processing of 45 information and various communications that are required as described in greater detail below.

The recipients 180 may be geographically dispersed and connect to the web server 110 using any conventional type of computer based communication system. As an example, a recipient 180 may have a computer and gain Internet access over a standard telephone line via a modem using one of the various Internet Service Providers (ISP), such as: America Online or CompuServe. As another example, a recipient 180 may gain Internet access using Web TV. Those skilled in the art will recognize that not each recipient 180 need utilize the same type of computer based communication system in contacting the web server 110.

In analogous fashion, the senders 155 may be geographically dispersed and connect to the web server 110 using any conventional type of computer based communication system. Furthermore, to assist in the creation, addressing, output generation and/or delivery of messages, the senders 155 may employ any number and variety of messaging systems (not shown). Examples of messaging systems are: a traditional postage meter, such as the Personal PostTM meter; an open system postage meter, such as the ClickStampTM online postage system employing a personal computer and a

dot matrix (laser, ink jet, thermal transfer, etc.) printer; and an inserter system, such as the 8 SeriesTM inserting system; all available from Pitney Bowes of Stamford, Conn. Still other examples of messaging systems are shipping and logistics systems, addressing systems, such as the Address-RightTM system available from Pitney Bowes of Stamford, Conn., electronic mail and the like. Because messaging systems are well know, there descriptions have been limited for the sake of brevity to only that which is necessary to provide suitable background for an understanding of the present invention.

The recipient 180 may be individual, a household, a business or any other type of entity/organization that receives messages. Referring to FIG. 2 in view of FIG. 1, a template for a recipient preference profile 190 is shown. As necessary, the recipients 180 may access their profiles in order to make corrections and changes to any information. The recipient preference profile 190 is preferably stored in any suitable memory device (database server, memory farm, hard disk, etc.) as part of or operatively connected to the web server 110 and defines various parameters intended to control aspects of messages sent by the senders 155 that are intended for the recipient. Those skilled in the art will recognize that the parameters defined below are mutually exclusive and may be employed in any combination.

The recipient preference profile 190 may include: a recipient identifier or ID data 190a; message format data 190b; delivery instruction data 190c; interest data 190d; no interest data 190e; primary address data 190f and secondary address data 190g. The recipient ID data 190a may be a name (individual, household or business) or any other suitably unique identifier (alphanumeric, etc.) and simply distinguishes the recipient 180 from other recipients 180. The message format data 190b may indicate the recipient's preferred mode of communication (physical mail, electronic mail, facsimile transmission, voice mail, etc.), combination of modes of communication and/or priority for modes of communication in which to receive messages. The delivery instruction data 190c indicates if any optional delivery preferences, such as: hold messages, temporary reroute messages, etc.; are active. For example, a hold message instruction may be utilized by the recipient 180 when the recipient 180 is not available (vacation, business travel, etc.) to receive messages. As another example, the temporary reroute messages instruction may be utilized by the recipient 180 when the recipient 180 wished to have messages sent to an alternate address 190g (described below) during selected time periods, such as: vacation addresses and the like. The interest data 190d indicates if the recipient 180 has any desire to hear from particular types of senders. The no interest data 190e indicates if the recipient 180 has any desire to not hear from particular types of senders. The primary address data 190f represents the default address (postal delivery, electronic mail, phone number, etc.) to which messages should be sent. If the recipient 180 moves, then the primary address data 190f may be updated by the recipient 180 to reflect a new address. Analogously, the secondary address data 190g represents an alternate address to which messages should be sent if directed so by the delivery instruction data 190c.

The interest data 190d and the no interest data 190e include indications of types of industry segments that the recipient may or may not, respectively, wish to hear from. These data 190d and 190e may be captured in any conventional manner. One system for available for use is the Standard Industry Code (SIC) system that assigns SIC numbers for a variety of well known industry segments. As examples, automobile rental companies would be assigned a SIC number in the range of 2100 to 2199, while automobile dealerships would be assigned a SIC number in the range of

2400–2499 and service stations would be assigned a SIC number in the range of 4000 to 4099. Still other SIC numbers exist for financial institutions, health care providers, legal service providers, professional associations, utility service providers, governmental agencies and a variety of other industry segments. Accordingly, SIC numbers corresponding to industries that the recipient 180 desires to hear from could be placed in the interest data 190d while SIC numbers corresponding to industries that the recipient 180 does not want to hear from could be placed in the no interest data 190c.

The sender 155 may be an individual, a household, a business or any other type of entity/organization that generates messages intended for a recipient. However, it is primarily anticipated that most senders 155 would be businesses. Referring to FIG. 3 in view of FIGS. 1 and 2, a template for a sender profile 195 is shown. As necessary, the senders 155 may access their profiles in order to make corrections and changes to any information.

The sender profile 195 is established by the sender 155 and may include: a sender identifier or ID data 195a; an 20 e-mail address 195b; a physical address 195c; a series of SIC numbers 195d describing the sender; and notification setting data 195e. The sender ID data 195a may be a name (individual, household or business) or any other suitably unique identifier (alphanumeric, etc.) and simply distinguishes the 25 sender 155 from other senders 155. The e-mail address 195b provides an electronic point of contact for the web server 110 to transmit messages to that are intended for the sender 155. The physical address 195c represents a street address for the sender 155. The series of $\overline{\text{SIC}}$ numbers 195d are, as defined and described above, used to categorize the subject matter of the sender's activities. The notification setting data 195e define how the web server 110 is to communicate with the sender 155. Those skilled in the art will recognize that the parameters defined above in the sender profile 195 are mutually exclusive and may be employed in any combina-

With the structure of the information delivery system 100 described as above, the operational characteristics will now be described. Referring primarily to FIG. 4 while referencing the structure of FIGS. 1, 2 and 3, a schematic diagram of the information flow between the recipients 180, the web server 110 and the senders 155 that facilitates efficient and effective exchange of message preference information is shown.

Both recipients 180 and senders 155 provide data to the 45 web server 110. Generally, the recipients 180 may establish their respective recipient preference profiles 190 with the web server 110 during a communication session in any conventional manner. Similarly, the senders 155 may establish their respective sender profiles 195 with the web server 110 during a communication session in any conventional manner. Those skilled in the art will recognize that the use of appropriate menu and/or command driven web pages that allow the recipient and sender to log on to and provide the sought after information described above may be accomplished in any conventional manner.

Senders 155 may access the recipient preference profiles 190 to gain better insights into how a particular recipient 180 wishes to be communicated with. Generally, it is anticipated that the senders 155 would access the profiles 190 at any time prior to dispatching a message for delivery to a particular recipient 180. The senders may access the profiles 190 through real time communication with the web server 110 or by downloading the profiles 190 on a periodic basis to their computer system for subsequent use. By having such ready access to up to date address information and recipient preferences, sender may communicate more efficiently and effectively with the recipients 180. Recipients 180 receive

messages if they want them, in the format they want, when they want and where they want. By allowing recipients to control aspects of their incoming messages, their satisfaction is increased. Also, by utilizing the web server 110, faster updating of new addresses to senders is achieved because for updates need only occur at a single source. Thus, the delays and costs associated with the traditional practices described above are substantially alleviated.

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For example, the interest data 190d and the no interest data 190e may be established by the senders 155 to more effectively route messages to the intended recipient 180. Using the interest data 190d, the senders 155 may scan the profiles 190 looking for recipients 180 that are likely to be interested in their messages (solicitations, informational communication, etc.). Thus, the senders 155 would achieve greater effectiveness on their message delivery programs because they would have an indication the certain recipients 180 have a previously acknowledged interest in a particular industry or industries. On the other hand, using the no interest data 190e, the senders 155 may also increase the effectiveness of their message delivery programs while reducing costs. While scanning the profiles 190 in general or accessing profiles 190 for recipients 180 that have already be designated to receive a message, the sender may terminate further processing of certain messages by out sorting any recipients that have provided an indication that they are not likely to be interested in any messages (solicitations, information communication, etc.) from a particular industry or industries. In other words, messages intended for such recipients will be terminated (not generated, not dispatched, etc.). Thus, the senders 155 would save costs by foregoing to dispatch any messages to these recipients 180. Additionally, these recipients 180 benefit in that the receipt of undesired messages does not distract them.

As an additional feature, the web server 110 may also notify the senders 155 of changes to the recipient preference profiles 190. In this manner, the senders 155 are even more certain of having up to date information. As specified by the notification setting data 195e, the web server 110 may provide a notification (e-mail, physical mail, popup window or other indicator during a subsequent communication session with the web server 110, or other suitable technique) to the sender 155 that the recipient preference profiles 190 have changed. If a recipient 180 updates its recipient preference profile 190 to reflect new information, then a change notification is generated. In the most preferred embodiment of the present invention, this is achieved by keeping track of which recipient preference profiles 190 the sender 155 has previously accessed and providing a notification to the sender 155 when there is a change to one of these previously accessed profile 190. The tracking may be accomplished in multiple ways. One example is to create and store a cookie. The cookie contains data created by the web server 110 that is stored on a sender's computer and provides a way for the web server 110 to keep track of a sender's activities. For example, the cookie may include a listing of the ID data 190a, along with a revision level or date, from all of the recipient profiles 190 that the sender 155 has accessed. Then, on each session with the web server 110, the data within the cookie may be contrasted with the recipient profiles 190 to determine if any changes have occurred. As another example, the listing of the ID data 190a, along with a revision level or date, from all of the recipient profiles 190 that the sender 155 has accessed may be stored along with the sender profile 195 at the web server 110. In this manner, the listing may be interrogated by the web server 110 on any periodic basis and without the need for the sender 155 to initiate a communication session. As yet another example, a listing of sender ID data 195a from those senders 155 accessing a particular recipient profile 190 may be associAlso, as an additional optional feature, if a new recipient 180 establishes a recipient preference profile 190, then a change notification may optionally be generated. In the most preferred embodiment of the present invention, this is achieved by scanning the interest data 190e of the newly added recipient preference profile 190 and notifying only those senders 155 that have matching interest descriptions. The senders 155 may be provided with the entire new recipient preference profile 190 or some subset thereof, such as an abstract or abbreviated recipient preference profile 190. Here again, it is preferable to the senders 155 to control this notification feature by turning it on or off and specifying the amount of information received in the notification using their respective notification setting data 195e.

As yet an another optional feature, a sender 155 that discovered that the sender 155 operates in an industry designated in the no interest data 190e by a recipient 180 may not necessarily wish to terminate messages intended for the recipient 180. The original sender 155 may wish to explore possible synergistic relationships with other senders 155. For example, the sender 155 may wish to collaborate with a alternate sender 155 from an industry that has been specified in the interest data 190d from of the recipient 180. In this manner, the alternate sender 155 may serve as the primary contact with the recipient 180. Thus, the original sender 155 and the alternate sender 155 may collaborate on dispatching a message to the recipient 180. As an example, if a recipient 180 designates financial service companies in its no interest data 190e and home improvement companies in its interest data 190e, then a financial service company may partner with a home improvement company on sending a message to the recipient 180. In this example, the home improvement company (alternate sender) may take the 40 "lead" on the message by describing various home improvement products and/or services that it provides while indicating that, if needed, a second mortgage line of credit to cover the costs associated with the home improvements are also available from their partner (original sender). As 45 another example, the original sender 155 may still dispatch a message to the recipient without directly contacting a partner. To continue the theme introduced above, the original sender 155 may focus the message on obtaining a second mortgage line of credit to cover the costs associated with the home improvements and then provide a listing of home improvement specialists in proximity to the recipients 180.

Thus, it should now be understood that messages from senders falling into "no interest" categories might be modified in several ways. The examples have been discussed above are: (i) terminating the messages; (ii) redirecting the message as originating from a source other than the original sender; and (iii) editing the message to suit an interest of the recipient. To facilitate this process, the web server 110 may scrutinize the sender profiles 195 of other senders 155 in view of the recipient preference profile 190 and provide a listing of other senders that do match the recipient's interest data 190d. Here again, whether the sender 155 desires to avail itself of this additional service may be controlled by the notification setting data 195e.

Based on the above description and the associated drawings, it should now be apparent that the present invention improves many aspects of the exchange of messages

between senders and recipients by facilitating the delivery of recipient preference information to senders.

Many features of the preferred embodiment represent design choices selected to best exploit the inventive concept as implemented in a particular messaging environment as pertaining to individual private recipients. However, those skilled in the art will recognize that various modifications can be made without departing from the spirit of the present invention to adapt the concepts of the present invention to address situations where the recipient is a business. For example, a wide variety of database management tools exist that can facilitate access to the recipient preference profiles. The exact manner in which these activities occur is subject to great variation due to practical design choices of the hardware, software, communications and data involved. As another example, the web server 110 may operate as the message dispatcher. Thus, the senders 155 provide instructions to the web server 110 that control the messaging process.

Therefore, the inventive concept in its broader aspects is not limited to the specific details of the preferred embodiments described above, but is defined by the appended claims and their equivalents.

What is claimed is:

- 1. An information delivery system, comprising:
- a web server in operative communication with a plurality of recipients and a plurality of senders, the plurality of senders desirous of generating messages intended for the plurality of recipients, respectively;

and wherein:

- the web server includes a plurality of recipient preference profiles corresponding to the plurality of recipients, respectively, and a plurality of sender profiles corresponding to the plurality of senders, respectively;
- each of the recipient preference profiles includes respective information directed to the recipient's preferences for receiving messages;
- the web server provides the plurality of senders with access to the plurality of recipient preference profiles; the web server maintains a relationship between a log of recipient preference profiles out of the plurality of recipient preference profiles that have been accessed by a particular sender; and
- for each of the recipient preference profiles in the log of recipient preference profiles, the web server provides a change notification to the particular sender of a change in the recipient preference profile.
- 2. The information delivery system of claim 1, wherein: the web server notifies the particular sender in a format specified in the particular sender's sender profile.
- The information delivery system of claim 2, wherein: each of the recipient preference profiles includes respective interest data;
- each of the sender profiles includes respective industry description data: and
- when a new recipient establishes a new recipient preference profile, the web server provides a new recipient notification to those senders whose industry description data matches the new recipient's interest data.
- 4. The information delivery system of claim 3, wherein: the new recipient notification of industry description data and interest data match is in accordance with instructions provided in the plurality of sender profiles, respectively.
- The information delivery system of claim 4, wherein: each of the recipient preference profiles includes respective no interest data; and

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- if a given sender accesses one of the plurality of recipient preference profiles and the given sender's industry description data matches the one of the plurality of recipient preference profiles no interest data, then the web server provides a listing of other senders whose industry description data matches the one of the plurality of recipient preference profiles interest data.
- 6. The information delivery system of claim 5, wherein: for each of the recipient preference profiles the web server associates a listing of those of the plurality of senders that have accessed the recipient preference profile; and the web server utilizes this listing in generating the change notifications.
- 7. The information delivery system of claim 1, wherein: for each of the recipient preference profiles the web server 15 associates a listing of those of the plurality of senders that have accessed the recipient preference profile; and the web server utilizes this listing in generating the change notifications.
- 8. The information delivery system of claim 1, wherein: 20 each of the recipient preference profiles includes respective interest data;
- each of the sender profiles includes respective industry description data; and
- when a new recipient establishes a new recipient preference profile, the web server provides a new recipient notification to those senders whose industry description data matches the new recipient's interest data.
- 9. The information delivery system of claim 8, wherein: the new recipient notification of industry description data 30 of: and interest data match is in accordance with instructions provided in the plurality of sender profiles, respectively.
- 10. A method of operating web server for exchanging information between a plurality of recipients and a plurality of senders desirous of generating messages intended for the plurality of recipients, respectively; the method comprising the step(s) of:
 - storing a plurality of recipient preference profiles corresponding to the plurality of recipients, respectively, and a plurality of sender profiles corresponding to the plurality of senders, respectively, each of the recipient preference profiles includes respective information directed to the recipient's preferences for receiving messages;

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providing the plurality of senders with access to the plurality of recipient preference profiles;

- maintaining a relationship between a log of recipient preference profiles out of the plurality of recipient preference profiles that have been accessed by a particular sender; and
- for each of the recipient preference profiles in the log of recipient preference profiles, providing a change notification to the particular sender of a change in the recipient preference profile.
- 11. The method of claim 10, further comprising the step(s) of:
 - notifying the particular sender in a format specified in the particular sender's sender profile.

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- 12. The method of claim 11, wherein:
- each of the recipient preference profiles includes respective interest data;
- each of the sender profiles includes respective industry description data; and

further comprising the step(s) of:

- when a new recipient establishes a new recipient preference profile, providing a new recipient notification to those senders whose industry description data matches the new recipient's interest data.
- 13. The method of claim 12, further comprising the step(s) of:
 - providing the new recipient notification of industry description data and interest data match in accordance with instructions provided in the plurality of sender profiles, respectively.
 - 14. The method of claim 13, wherein:
 - each of the recipient preference profiles includes respective no interest data; and

further comprising the step(s) of:

- if a given sender accesses one of the plurality of recipient preference profiles and the given sender's industry description data matches the one of the plurality of recipient preference profiles no interest data, then providing a listing of other senders whose industry description data matches the one of the plurality of recipient preference profiles interest data.
- 15. The method of claim 14, further comprising the step(s)
- for each of the recipient preference profiles, associating a listing of those of the plurality of senders that have accessed the recipient preference profile; and
- utilizing this listing in generating the change notifications.

 16. The method of claim 10, further comprising the step(s)
 - for each of the recipient preference profiles, associating a listing of those of the plurality of senders that have accessed the recipient preference profile; and
- utilizing this listing in generating the change notifications. 17. The method of claim 10, wherein:
- each of the recipient preference profiles includes respective interest data;
- each of the sender profiles includes respective industry description data; and

further comprising the step(s) of:

- when a new recipient establishes a new recipient preference profile, providing a new recipient notification to those senders whose industry description data matches the new recipient's interest data.
- 18. The method of claim 17, further comprising the step(s) of:
 - providing the new recipient notification of industry description data and interest data match in accordance with instructions provided in the plurality of sender profiles, respectively.

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EXHIBIT 3

(12) United States Patent Law

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US 6,690,773 B1

(45) Date of Patent:

Feb. 10, 2004

(54)	RECIPIENT CONTROL OVER ASPECTS OF	
	INCOMING MESSAGES	

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(21)	ADDI.	140.1	U2/200,022

(22) Filed:	Jun.	6,	2000
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(51)	Int. Cl. ⁷	H04M 1/64
(52)	U.S. Cl	379/88.22; 379/88.14;
		379/201.02
(50)	T2 . 1.2 . A C 1.	270/67 1 00 12

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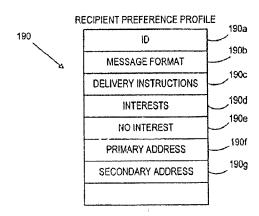
Primary Examiner—Scott L. Weaver (74) Attorney, Agent, or Firm—Angelo N. Chaclas; George

M. Macdonald

(57) ABSTRACT

An information system includes a plurality of messaging systems, a data center and a control system. The plurality of messaging systems process respective messages intended for recipients. The data center is in operative communication with the plurality of messaging systems and stores a recipient preference profile associated with each respective recipient. The control system accessing an intended recipient preference profile corresponding to an intended recipient of a message and uses the intended recipient preference profile to process the message.

14 Claims, 2 Drawing Sheets

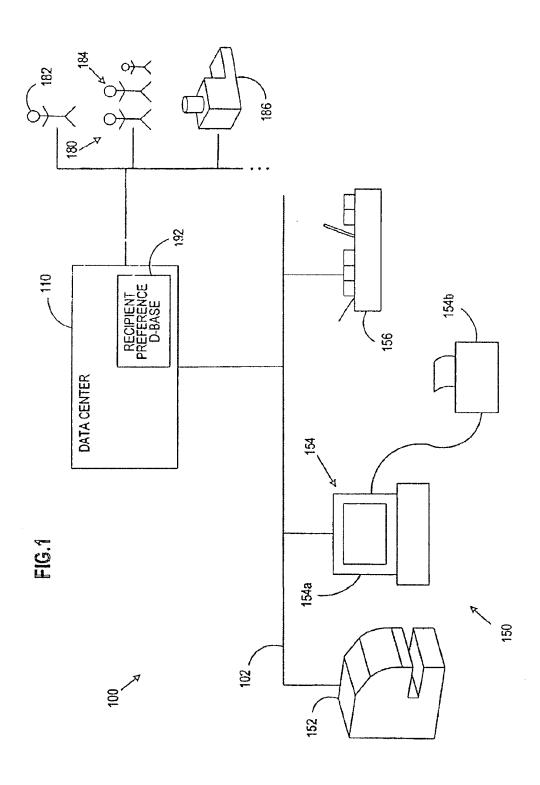


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FIG. 2 RECIPIENT PREFERENCE PROFILE 190a 190 ID 190b MESSAGE FORMAT 190c **DELIVERY INSTRUCTIONS** 190d **INTERESTS** 190e NO INTEREST 190f **PRIMARY ADDRESS** 190g SECONDARY ADDRESS

PROFILES

PROFILES

PROFILES

PROFILES

PROFILES

MESSAGING
SYSTEMS

MESSAGES

150

180

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RECIPIENT CONTROL OVER ASPECTS OF INCOMING MESSAGES

CROSS REFERENCE TO RELATED APPLICATIONS

This application is related to the following co-pending applications filed concurrently on Jun. 6, 2000 and commonly assigned to the assignee of this application: U.S. patent application Ser. No. 09/588,443, entitled MESSAGING SYSTEM HAVING RECIPIENT PROFILING and U.S. patent application Ser. No. 09/588,763, entitled INFORMATION DELIVERY SYSTEM FOR PROVIDING SENDERS WITH A RECIPIENT'S MESSAGING PREFERENCES, both of which are specifically incorporated herein by reference.

FIELD OF THE INVENTION

This invention relates generally to messaging systems. More particularly, in the preferred embodiments, this invention is directed to techniques allowing a recipient, receiving messages from a plurality of different messaging systems operated by respective senders desiring to communicate with the recipient, to control various aspects of the messages generated by the senders and intended for the recipient.

BACKGROUND OF THE INVENTION

Traditionally, recipients (individuals, businesses and households) have had little opportunity to influence the mail that is sent to them. Merely having a post office address has served as an open invitation to mailers (one type of message senders) wishing to communicate with the recipient. Historically, recipients have been limited in their ability to control any aspects of the mail.

Many factors place increased demands on the effectiveness of messages. First, the costs of generating and delivering messages is always increasing. Second, senders must compete for the recipient's attention due to the large number of messages that are typically received. Third, recipients need timely and easy access to their messages so that they are able to retrieve and discern them efficiently. Numerous other factors exist.

Generally, various postal authorities around the world provided some narrow ability for a recipient to control the 45 mail. One service is mail forwarding (holiday, temporary move, secondary address, etc.) where the mail is redirected from an original address specified by the sender to another address specified by the recipient. This service may be utilized when the recipient moves. Although this service 50 generally works well, it suffers from certain drawbacks and disadvantages. As an example, delays are typically involved in redirecting the mail. Furthermore, the sender is typically unaware of the new address and may continue to send subsequent mail to the old address. Address correction 55 databases that contain updated information about the recipient's address are only updated periodically and must be accessed by the sender to obtain that new information. This delay has potential negative consequences for both the sender and the recipient. As another example, delivery costs for the postal authority are increased because the mail is often routed to the old address before being forwarded to the new address. Therefore, due to all of the above, the sender and the recipient suffer a loss in quality of service while cost for the postal authority increase.

In addition to or as an alternative to notifying the postal authority and described above, the recipient who has moved 2

may attempt to provide various senders with the new address. However, this is time consuming and generally not very effective since it may only pertain to physical mail.

Another type of service is mail holding where the mail is held by the postal authority and not delivered to the recipient. This service may be utilized when the recipient is away from home for a period of time. Although this service generally works well, it suffers from certain drawbacks and disadvantages. As an example, mail tends to collect at the postal authority facilities and this increases storage and handling costs for the postal authority. Furthermore, the sender is typically unaware of the hold that has been placed on delivery and may continue to send subsequent mail believing that the recipient is receiving mail. This compounds the storage problem for the postal authority and the timeliness issue for the sender and the recipient.

Therefore, due to all of the above, the sender and the recipient suffer a loss in quality of service while costs for the postal authority are generally increased. As a result, there is a need for improved recipient control over various parameters associated with messages, in particular mail, intended for a recipient.

SUMMARY OF THE INVENTION

The present invention provides a system and methods for improving the collection and dissemination of recipient preferences for messages. Generally, this is accomplished by collecting recipient preference data and making it available to a plurality of discrete messaging systems for use in preparing messages intended for a selected recipient.

In accordance with the present invention, there is provided a system including a plurality of messaging systems, a data center and a control system. The plurality of messaging systems process respective messages intended for recipients. The data center is in operative communication with the plurality of messaging systems and stores a recipient preference profile associated with each respective recipient. The control system accessing an intended recipient preference profile corresponding to an intended recipient of a message and uses the intended recipient preference profile to process the message.

In accordance with the present invention, a method of operating a data center and a data structure are also provided.

Therefore, it is now apparent that the present invention substantially overcomes the disadvantages associated with the prior art. Additional advantages of the invention will be set forth in the description that follows, and in part will be obvious from the description, or may be learned by practice of the invention. The objects and advantages of the invention may be realized and obtained by means of the instrumentalities and combinations particularly pointed out in the appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying drawings, which are incorporated in and constitute a part of the specification, illustrate presently preferred embodiments of the invention, and together with the general description given above and the detailed description of the preferred embodiments given below, serve to explain the principles of the invention. As shown throughout the drawings, like reference numerals designate like or corresponding parts.

FIG. 1 is a simplified representation of a system including a data center, a plurality of distributed messaging systems

and a plurality of recipients, both in electronic communication with the data center, in which the present invention may be incorporated.

FIG. 2 is a schematic representation of a template for a recipient preference profile describing various parameters intended to control aspects of messages sent by the senders that are intended for the recipient, in accordance with the present invention.

FIG. 3 is a schematic diagram of information flow between recipients, the data center and the messaging systems that facilitates recipient influenced messaging in accordance with the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to FIG. 1, an example of a system 100 for collecting message preference data from recipients 180 and providing those preferences to senders of messages, in which the present invention may be incorporated, is shown. 20 The information system includes a data center 110 in communication over any suitable communication network 102 (LAN, WAN, telephone line, Internet, etc.) with a plurality of remotely located (geographically dispersed) messaging systems 150 and a plurality of remotely located recipients 25 examples, the recipients 180 may communicate with an 180. The messaging systems 150 may include any device that is utilized by a sender (not shown) to produce a message (not shown) intended for a recipient 180 (described in greater detail below). Examples of messaging systems are: a traditional postage meter 152, such as the Personal PostTM meter; an open system postage meter 154, such as the ClickStamp™ online postage system employing a personal computer 154a and a dot matrix (laser, ink jet, thermal transfer, etc.) printer 154b; and an inserter 156, such as the 8 Series™ inserting system; all available from Pitney Bowes 35 of Stamford, Conn. Still other examples of messaging systems are shipping and logistics systems (not shown), addressing systems, such as the AddressRight™ system available from Pitney Bowes of Stamford, Conn., electronic mail (not shown) and the like. Because messaging systems 40 are well know, there descriptions have been limited for the sake of brevity to only that which is necessary to provide suitable background for an understanding of the present invention.

would be located primarily in business offices and in private residences and used for a variety of purposes, including message creation, addressing, output generation and/or delivery. The data center 110 is maintained and operated by an administrative agency (not shown), such as the supplier 50 of the messaging systems 150, and may communicate with the messaging systems 150 in a variety of different ways. Those skilled in the art will recognize that not each messaging system 150 need utilize the same type of communication network 102 in contacting the data center 110. 55 Furthermore, depending on the needs of each messaging system 150, the messaging systems 150 may or may not need full time access to the data center 110 to perform their respective tasks. The data center 110 may employ any suitable combination of computer hardware and software 60 (control system) to facilitate the storage, access and processing of information and various communications that arc required as described below.

In conventional fashion, the messaging systems 150 are used by their respective operators to perform one or more of 65 the steps in the messaging process (creation, addressing, output generation, delivery, etc.). For example, the tradi-

tional postage meter 152 and the open system postage meter 154 may be used to apply a postal indicia (not shown) on an envelope (not shown) that contains a letter (not shown) for delivery to a recipient 180. The postal indicia typically includes at least date and postage value data. The inserter 156 may be used to create, assemble, fold and/or insert a document (not shown) into an envelope (not shown) for subsequent delivery. Therefore, the inserter 156 may have information pertaining to the content of the envelope and the recipient 180 of the envelope. In analogous fashion, the other types of messaging systems 150 all have access to various data about the messages that they process. Those skilled in the art will appreciate that the types of data available are quite varied and ever increasing as newer more intelligent products are being introduced. Those skilled in the art will also appreciate that the messaging systems 150 each have their own suitable combination of computer hardware and software (control system) that operates to control the functioning of the messaging system 150 and communicate, as necessary, with the data center 110.

The recipients 180 may be an individual 182, a household 184, a business 186 or any other entity or organization that receives messages. The recipients may communicate with the data center 110 in any conventional manner. As automated voice response system (not shown) over conventional telephone lines or via a web site located via a global communication network. Each of the recipients 180 establishes a recipient preference profile (see FIG. 2 and description below) that may be stored in the data center 110 in a recipient preference profiles database 192. As necessary, the recipients 180 may access their profiles in order to make corrections and/or changes to any information in their respective preference profiles.

Referring to FIG. 2 in view of FIG. 1, a template for a recipient preference profile 190 is shown. The recipient preference profile 190 is preferably stored in any suitable memory device (database server, memory farm, hard disk, etc.) and defines various parameters intended to control aspects of messages sent by the senders that are intended for the recipient. Those skilled in the art will recognize that the parameters defined below are mutually exclusive and may be employed in any combination. In conventional fashion, the recipient preference profiles 190 may be accessed by any Generally, it is anticipated that the messaging systems 150 45 suitable technique, such as an application software program executed by the data center 110 control system. The recipient preference profile 190 may include: a recipient identifier or ID data 190a; message format data 190b; delivery instruction data 190c; interest data 190d; no interest data 190e; primary address data 190f and secondary address data 190g. The recipient ID data 190a may be a name (individual, household or business) or any other suitably unique identifier (alphanumeric, etc.) and simply distinguishes the recipient 180 from other recipients 180. The message format data 190b may indicate the recipient's preferred mode of communication (physical mail, electronic mail, facsimile transmission, voice mail, etc.), combination of modes of communication and/or priority for modes of communication in which to receive messages. The delivery instruction data 190c indicates if any optional delivery preferences, such as: hold messages, temporary reroute messages, etc.; are active. For example, a hold message instruction may be utilized by the recipient 180 when the recipient 180 is not available (vacation, business travel, etc.) to receive messages. As another example, the temporary reroute messages instruction may be utilized by the recipient 180 when the recipient 180 wished to have messages sent to an alternate address

190g (described below) during selected time periods, such as: vacation addresses and the like. The interest data 190d indicates if the recipient 180 has any desire to hear from particular types of senders. The no interest data 190e indicates if the recipient 180 has any desire to not hear from particular types of senders. The primary address data 190f represents the default address (postal delivery, electronic mail, phone number, etc.) to which messages should be sent. If the recipient 180 moves, then the primary address data 190f may be updated by the recipient 180 to reflect a new address. Analogously, the secondary address data 190g represents an alternate address to which messages should be sent if directed so by the delivery instruction data 190c.

The interest data 190d and the no interest data 190einclude indications of types of industry segments that the 15 recipient may or may not, respectively, wish to hear from. These data 190d and 190e may be captured in any conventional manner. One system for available for use is the Standard Industry Code (SIC) system that assigns SIC numbers for a variety of well known industry segments. As 20 examples, automobile rental companies would be assigned a SIC number in the range of 2100 to 2199, while automobile dealerships would be assigned a SIC number in the range of 2400-2499 and service stations would be assigned a SIC number in the range of 4000 to 4099. Still other SIC 25 the carrier are eliminated. Also, the sender has an opportunumbers exist for financial institutions, health care providers, legal service providers, professional associations, utility service providers, governmental agencies and a variety of other industry segments. Accordingly, SIC numbers corresponding to industries that the recipient 180 desires to hear from could be placed in the interest data 190d while SIC numbers corresponding to industries that the recipient 180 does not want to hear from could be placed in the no interest data 190e.

With the structure of the information system 100 35 described as above, the operational characteristics will now be described with respect to how recipient preference profiles 190 are generated by the recipients and potentially used by the messaging systems 150. Referring primarily to FIG. 3 while referencing the structure of FIGS. 1 and 2, a 40 schematic diagram of the information flow between the recipients 180, the data center 110 and the messaging systems 150 that facilitates recipient influenced messaging in accordance with the present invention is shown.

Generally, the recipients 180 establish their respective 45 recipient preference profiles 190 with the data center 110 in any conventional manner. These profiles 190 are then accessed by the messaging systems $\bar{1}50$ at any time prior to dispatching a message for delivery to a particular recipient 180. The messaging systems 150 may access the profiles 190 50 through real time communication with the data center 110 or by downloading the profiles 190 to the messaging system 150 for subsequent use. In a most preferred aspect of the present invention, the database of recipient profiles 190 is downloaded to each messaging system 150 at periodic 55 intervals. During the message creation process (content creation, addressing, output generation, etc.), the messaging system 150 determines if a profile 190 exists for an intended recipient 180. If not, then the messaging system 150 continues normal operation. On the other hand, if a profile 190 60 corresponding to the intended recipient 180 does exist, then the messaging system 150 utilizes the data 190a-190g provided in the intended, recipients profile 190 to control the messaging process. For example, if the intended recipients profile 190 indicates a preferred form of communication in 65 designated in the no interest data 190e by a recipient 180 the message format data 190b, then the messaging selects that form of communication (if available). This has the

benefit of allowing the intended recipient 180 to control the format of messages that it will receive. Those skilled in the art will recognize that not each type of messaging system 150 will be capable of executing each form of communication. As another example, if the primary address data 190f is different from the address that was previously available to the messaging system 150, then the messaging system 150 adopts the address provided by the primary address data 190f. This has the benefit of providing faster updating of new addresses to senders and allows for updates to occur at a single source. Thus, the delays and costs associated with the traditional practices described above are substantially alleviated.

Delivery instruction data 190c may also be established by the recipients 180 and utilized by the messaging systems 150 to more efficiently route messages to the intended recipient 180. If a temporary reroute messages instruction is provided, then the senders via their messaging systems 150 can utilize the secondary address data 190g as a destination address for the intended recipient 180 over a specified period of time. In this manner, delays and extra handling as discussed above are eliminated. If a hold messages instruction is provided, then the messaging systems 150 will not dispatch the messages for delivery. In this manner, the storage costs for nity to consolidate messages that are generated during this interval into a single comprehensive message at potentially less cost than dispatching individual messages. The messaging systems 150 may facilitate this by keeping a track of messages that have been held and giving the sender an opportunity to consolidate messages directed to the same intended recipient 180 that are waiting for dispatch.

The interest data 190d and the no interest data 190e may also be established by the recipients 180 and utilized by the messaging systems 150 to more effectively route messages to the intended recipient 180. Using the interest data 190d, the senders may scan the profiles 190 looking for recipients that are likely to be interested in their messages (solicitations, informational communication, etc.). Thus, the senders would achieve greater effectiveness on their message delivery programs because they would have an indication the certain recipients 180 have a previously acknowledged interest in a particular industry or industries. On the other hand, using the no interest data 190e, the senders may also increase the effectiveness of their message delivery programs while reducing costs. While scanning the profiles 190 in general or accessing profiles 190 for recipients 180 that have already be designated to receive a message, the sender may terminate further processing of certain messages by out sorting any recipients 180 that have provided an indication that they are not likely to be interested in any messages (solicitations, information communication, etc.) from a particular industry or industries. In other words, messages intended for such recipients will be terminated (not generated, not dispatched, etc.). This may be achieved automatically by including in the messaging systems 150 an indication of the senders SIC number. Thus, the SIC numbers supplied by the recipients as no interest data may be compared with the SIC numbers assigned to the senders. Thus, the senders would save costs by foregoing to dispatch any messages to these recipients 180. Additionally, these recipients 180 benefit in that they are not distracted by the receipt of undesired messages.

As an optional feature, an original sender that has been may not necessarily terminate messages intended for the recipient 180. The original sender may utilize the interest

data 190d from of the recipient 180 to locate an alternate sender to serve as the primary contact with the recipient 180. Thus, the original sender and the alternate sender may collaborate on dispatching a message to the recipient 180. As an example, if a recipient 180 designates financial service 5 companies in its no interest data 190e and home improvement companies in its interest data 190e, then a financial service company may partner with a home improvement company on sending a message to the recipient 180. In this example, the home improvement company (alternate sender) 10 may take the "lead" on the message by describing various home improvement products and/or services that it provides while indicating that, if needed, a second mortgage line of credit to cover the costs associated with the home improvements are also available from their partner (original sender). 15 As another example, the original sender may still dispatch a message to the recipient without directly contacting a partner. To continue the theme introduced above, the original sender may focus the message on obtaining a second mortgage line of credit to cover the costs associated with the 20 home improvements and then provide a listing of home improvement specialists in proximity to the recipients 180.

Thus, it should now be understood that messages from senders falling into "no interest" categories might be modified in several ways. The examples have been discussed 25 above are: (i) terminating the messages; (ii) redirecting the message as originating from a source other than the original sender; and (iii) editing the message to suit an interest of the recipient.

Based on the above description and the associated drawings, it should now be apparent that the present invention improves many aspects of the messaging industry by letting recipients directly control the flow of messages.

Many features of the preferred embodiment represent design choices selected to best exploit the inventive concept as implemented in a particular messaging environment as pertaining to individual private recipients. However, those skilled in the art will recognize that various modifications can be made without departing from the spirit of the present invention to adapt the concepts of the present invention to address situations where the recipient is a business. For example, a wide variety of database management tools exist that can facilitate access to the recipient preference profiles. The exact manner in which these activities occur is subject to great variation due to practical design choices of the hardware, software, communications and data involved. As another example, the control systems of the data center 110 and the messaging systems 150 may operate cooperatively such that various tasks and operations described above may 50 occur at either location. As yet another example, the data center 110 may operate as the message dispatcher. Thus, the messaging systems 150 generate the messages and upload them to the data center 110. Then, the data center reconciles the messages with the recipient preference profiles 190 and takes appropriate measures when dispatching or not dispatching the messages as discussed above.

Therefore, the inventive concept in its broader aspects is not limited to the specific details of the preferred embodiments described above, but is defined by the appended claims and their equivalents.

What is claimed is:

- 1. A system, comprising:
- a plurality of messaging systems for processing respective messages intended for recipients;
- a data center in operative communication with the plurality of messaging systems for storing a recipient

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preference profile associated with each respective recipient; and

a control system for:

- accessing an intended recipient preference profile corresponding to an intended recipient of a message; and
- using the intended recipient preference profile to process the message, wherein
 - the recipient preference profile provides a primary address where messages are generally directed, a secondary address and a message rerouting instruction including a specified time period; and
 - the control system is further for dispatching messages to the secondary address during the specified time period.
- 2. A system, comprising:
- a plurality of messaging systems for processing respective messages intended for recipients;
- a data center in operative communication with the plurality of messaging systems for storing a recipient preference profile associated with each respective recipient; and
- a control system for:
 - accessing an intended recipient preference profile corresponding to an intended recipient of a message; and
- using the intended recipient preference profile to process the message, wherein
 - the recipient preference profile includes no interest data pertaining to senders that the intended recipient does not wish to receive messages from; and
 - the control system is further for not dispatching messages to the intended recipient if the messaging system is operated by a sender described by the no interest data.
- 3. A system, comprising:
- a plurality of messaging systems for processing respective messages intended for recipients;
- a data center in operative communication with the plurality of messaging systems for storing a recipient preference profile associated with each respective recipient; and
- a control system for:
 - accessing an intended recipient preference profile corresponding to an intended recipient of a message;
 - using the intended recipient preference profile to process the message, wherein
 - the recipient preference profile provides a message hold instruction; and
 - the control system is further for not dispatching messages to the intended recipient while the message hold instruction is active.
- 4. The system of claim 3, wherein:
- the control system is further for collecting discrete messages directed to the intended recipient while the hold instruction is active and consolidating the collected discrete messages into a composite message for delivery to the intended recipient when the hold instruction is not active.
- 5. A method of operating a data center, the method comprising:
 - communicating with a plurality of messaging systems, the messaging systems for processing respective messages intended for recipients;
 - storing respective recipient preference profiles established by the recipients;

- providing an intended recipient preference profile corresponding to an intended recipient of a message for use by a messaging system in processing the message; and
- including within the recipient preference profile a primary address where messages are generally directed, a secondary address and a message rerouting instruction including a specified time period wherein messages produced by the messaging systems are to be dispatched to the secondary address during the specified time period.
- 6. A method of operating a data center, the method comprising:
 - communicating with a plurality of messaging systems, the messaging systems for processing respective messages intended for recipients;
 - storing respective recipient preference profiles established by the recipients;
 - providing an intended recipient preference profile corresponding to an intended recipient of a message for use 20 by a messaging system in processing the message;
 - including within the recipient preference profile an indication of a preferred format for messages and wherein messages produced by the messaging systems are to be dispatched to the intended recipient in the preferred 25 format; and
 - including within the recipient preference profile no interest data pertaining to senders that the intended recipient does not wish to receive messages from and wherein messages produced by the messaging systems are not to be dispatched to the intended recipient if the messaging systems are operated by a sender described by the no interest data.
- 7. A method of operating a data center, the method comprising:
 - communicating with a plurality of messaging systems, the messaging systems for processing respective messages intended for recipients;
 - storing respective recipient preference profiles established 40 by the recipients;
 - providing an intended recipient preference profile corresponding to an intended recipient of a message for use by a messaging system In processing the message; and
 - including within the recipient preference profile a message hold instruction and wherein messages produced by the messaging systems are not to be dispatched to the intended recipient while the, message hold instruction is active.
- 8. The method of claim 7, further comprising the step(s) 50 of:

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- collecting discrete messages directed to the intended recipient while the hold instruction is active and consolidating the collected discrete messages into a composite message for delivery to the intended recipient when the hold instruction is not active.
- 9. A memory device accessible by an application program being executed on a control system, comprising:
 - a recipient preference profile, established by a recipient, including parameters intended to control aspects of messages produced by a plurality of senders that are intended for the recipient;
 - no interest data pertaining to selected senders that the recipient does not wish to receive messages from and wherein messages are not produced by the selected senders described by the no interest data; and
 - a message hold instruction and wherein messages produced by the plurality of senders are not to be dispatched to the recipient while the message hold instruction is active.
 - 10. The memory device of claim 9, further comprising:
 - a primary address where messages are to be generally directed, a secondary address and a message rerouting instruction Including a specified time period wherein messages produced by the plurality of senders are to be dispatched to the secondary address during the specified time period.
 - 11. The memory device of claim 9, further comprising:
 - an indication of a preferred format for messages and wherein messages produced by the plurality of senders are to be dispatched to the recipient in the preferred format.
 - 12. The memory device of claim 9, further comprising:
 - no interest data pertaining to selected senders that the recipient does not wish to receive messages from and wherein messages produced by the selected senders are not to be dispatched to the recipient.
 - 13. The memory device of claim 9, further comprising:
 - a message hold instruction and wherein messages produced by the plurality of senders are not to be dispatched to the recipient while the message hold instruction is active.
 - 14. The memory device of claim 13, further comprising: discrete messages collected while the hold instruction is active and a composite message consolidating the discrete messages into a single message to be delivered to the recipient when the hold instruction is not active.

* * * *

UNITED STATES DISTRICT COURT CENTRAL DISTRICT OF CALIFORNIA

NOTICE OF ASSIGNMENT TO UNITED STATES MAGISTRATE JUDGE FOR DISCOVERY

This case has been assigned to District Judge Margaret M. Morrow and the assigned discovery Magistrate Judge is Rosalyn M. Chapman.

The case number on all documents filed with the Court should read as follows:

CV09- 7373 MMM (RCx)

Pursuant to General Order 05-07 of the United States District Court for the Central District of California, the Magistrate Judge has been designated to hear discovery related motions.

A	ll discovery related motions	s shou	ald be noticed on the calendar	of the	e Magistrate Judge
-			NOTICE TO COUNSEL		
	py of this notice must be served v a copy of this notice must be ser		e summons and complaint on all def n all plaintiffs).	endar	nts (if a removal action is
Subs	sequent documents must be filed	at the	following location:		
[X]	Western Division 312 N. Spring St., Rm. G-8 Los Angeles, CA 90012		Southern Division 411 West Fourth St., Rm. 1-053 Santa Ana, CA 92701-4516		Eastern Division 3470 Twelfth St., Rm. 134 Riverside, CA 92501

Failure to file at the proper location will result in your documents being returned to you.

United States District Court

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CENTRAL DISTRICT OF CALIFORNIA

PITNEY BOWES INC., a Delaware corporation; and PITNEY BOWES SOFTWARE INC., a Delaware Corporation	.))	01100 7273	Mass	W
PITNEY BOWES SOFTWARE INC., a Delaware Corporation Plaintiff V. ZUMBOX, INC., a Delaware corporation)))	Civil Action No.		(RGX)
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SUMMONS IN A CIVIL ACTION

To: (Defendant's name and address)

ZUMBOX, INC., a Delaware corporation 31364 Via Colinas Westlake Village, CA 91362-6211

A lawsuit has been filed against you.

Within 20 days after service of this summons on you (not counting the day you received it) — or 60 days if you are the United States or a United States agency, or an officer or employee of the United States described in Fed. R. Civ. P. 12 (a)(2) or (3) — you must serve on the plaintiff an answer to the attached complaint or a motion under Rule 12 of the Federal Rules of Civil Procedure. The answer or motion must be served on the plaintiff or plaintiff's attorney, whose name and address are:

Roman M. Silberfeld, Esq.
David Martinez, Esq.
ROBINS, KAPLAN, MILLER & CIRESI L.L.P.
2049 Century Park East, Suite 3400
Los Angeles, CA 90067-3208

If you fail to respond, judgment by default will be entered against you for the relief demanded in the complaint. You also must file your answer or motion with the court.

Date:

1 3 OCT 2009

Signature of Clerk or Deputy Clerk

CLERK OF COURT

UNITED STATES DISTRICT COURT, CENTRAL DISTRICT OF CALIFORNIA

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FOR OFFICE USE ONLY: Case Number: ______. AFTER COMPLETING THE FRONT SIDE OF FORM CV-71, COMPLETE THE INFORMATION REQUESTED BELOW.

UNITED STATES DISTRICT COURT, CENTRAL DISTRICT OF CALIFORNIA CIVIL COVER SHEET

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If yes, list case number(s):			y y y				
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Key to Statistical codes relating to	Social Security Cas	es:					
Nature of Suit Code	Abbreviation	Substantive Statement of C	ause of Action				
861	НІА	All claims for health insurance benefits (Medicare) under Title 18, Part A, of the Social Security Act, as amended. Also, include claims by hospitals, skilled mursing facilities, etc., for certification as providers of services under the program. (42 U.S.C. 1935FF(b))					
862	BL	All claims for "Black Lung" benefits under Title 4, Part B, of the Federal Coal Mine Health and Safety Act of 1969. (30 U.S.C. 923)					
863	DIWC	All claims filed by insured workers for disability insurance benefits under Title 2 of the Social Security Act, as amended; plus all claims filed for child's insurance benefits based on disability. (42 U.S.C. 405(g))					
863	DIWW	All claims filed for widows or widowers insurance benefits based on disability under Title 2 of the Social Security Act, as amended. (42 U.S.C. 405(g))					
864	SSID	All claims for supplemental security income payments based upon disability filed under Title 16 of the Social Security Act, as amended.					
865	RSI	All claims for retirement (old age) and survivors benefits under Title 2 of the Social Security Act, as amended. (42 U.S.C. (g))					