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(71) Applicant *(for all designated States except US)*: **MICROSOFT CORPORATION** [US/US]; One Microsoft Way, Redmond, Washington 98052-6399 (US).

(72) Inventors: **COSTEA, Mihai**; c/o Microsoft Corporation, International Patents, One Microsoft Way, Redmond, Washington 98052-6399 (US). **KAY, Jeffrey B.**; c/o Microsoft Corporation, International Patents, One Microsoft Way, Redmond, Washington 98052-6399 (US). **DOUGHERTY, Jesse**; c/o Microsoft Corporation, International Patents, One Microsoft Way, Redmond, Washington 98052-6399 (US). **CHANDRESH, Jain**; c/o Microsoft Corporation, International Patents, One Microsoft Way, Redmond, Washington 98052-6399 (US). **MEHTA, Mayank**; c/o Microsoft Corporation, International Patents, One Microsoft Way, Redmond, Washington 98052-6399 (US). **NETO, Mayerber Carvalho**; c/o Microsoft Corporation, International Patents, One Microsoft Way, Redmond, Washington 98052-6399 (US).

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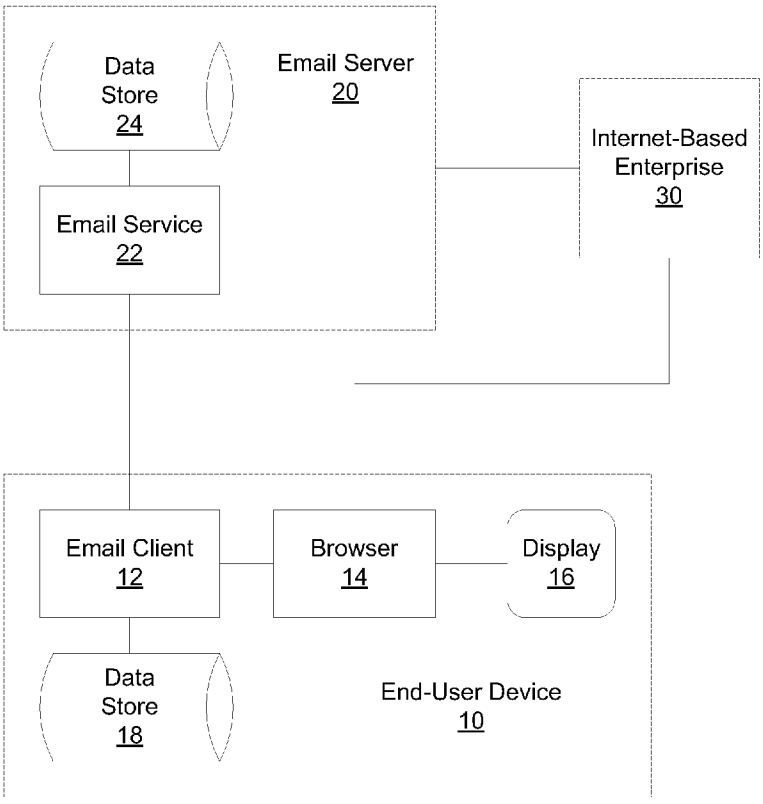

FIG. 1

(57) Abstract: Systems for providing disposable email addresses are disclosed herein. A user may set up a disposable email address for receiving emails from a trusted, Internet-based enterprise. The user may set up a dedicated mailbox folder associated with the disposable email address or enterprise. The email server may automatically direct emails coming from that enterprise into that folder. To "unsubscribe," the user needs only to delete the dedicated folder. Alternatively, emails from the enterprise to the disposable address may be highlighted in the user's main inbox. Thus, the user may be assured that any such email related to that enterprise found in the user's inbox or dedicated mailbox folder is truly from the enterprise, and not a phishing expedition or spam. Such systems also provide the user with effective tools to recognize phish or spam emails that appear to be from the trusted enterprise and not to act on them.

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SECURE TRANSACTIONAL COMMUNICATIONS

BACKGROUND

[0001] "Phishing" is the act of sending an e-mail to a user falsely claiming to be an established, legitimate enterprise in an attempt to scam the user into surrendering private information that may be used for illicit purposes. Typically, such an e-mail directs the user to visit a Web site where the user is asked to update personal information, such as passwords and credit card, social security, and bank account numbers, that the legitimate organization already has. The Web site, however, is bogus and set up only to steal the user's information.

[0002] Phishing is growing in sophistication and cost to end users and financial institutions, and accounts for a significant portion of the traffic in malicious e-mail. Attackers have ditched virus and worm development and replaced that with increasingly sophisticated phishing campaigns, some of which are extremely targeted. Electronic newsletters, for example, which are often filtered out by spam filters, can be spoofed. It is often impossible/insecure to "unsubscribe" to such newsletters, because links in spam are often not trusted. Consequently, the "unsubscribe" link may not be used. And once an email address is given out, a recipient cannot guarantee that it will not be used for aggressive marketing or sold out to spammers.

[0003] It would be desirable, therefore, if a mechanism were available to protect electronic newsletters and other e-commerce sites from being easy targets for phishing. It would also be desirable if a clear, differentiated channel were available for transactional email (*e.g.*, orders, statements, *etc.*).

SUMMARY

[0004] Systems and methods for providing smart, disposable email addresses are disclosed herein. Systems and methods disclosed herein enable a user to set up a "disposable" email address (or "alias") associated with a trusted internet-based enterprise. For example, a user may set up a disposable email address for use by his bank in communicating electronically with the user. The user's Internet browser may detect that a user is about to "give away" his "main" email address, and caution the user that he is about to do so. The browser may offer the user an option to use a disposable email address instead, for his own protection.

[0005] The user may set up a dedicated mailbox folder associated with that email address or enterprise. The email server may be programmed to automatically direct emails

coming from that enterprise into that folder. Alternatively, incoming emails from a trusted enterprise may be highlighted in some fashion in the user's ordinary inbox (i.e., the inbox associated with the user's main email address). Thus, the user may be assured that any such email related to that enterprise found in the user's inbox or dedicated mailbox folder is truly from the enterprise, and not a phishing expedition or spam. It should be understood, of course, that phishing emails might still arrive in the user's junk folder, or even in the user's inbox. However, the systems and methods disclosed herein provide the user with effective tools to recognize such emails as phish or spam and not to act on them. Further, intelligent email filters may be employed to recognize and filter such emails.

[0006] Thus, such systems may provide a prophylactic to "phishing," and may tend to reduce the amount of "spam" that a user receives. The user may be assured that a received email is truly from the source the email suggests it is from. The user's "main" email address may be better protected from unnecessary or undesirable distribution. And the "unsubscribe" function is guaranteed to work – to unsubscribe, the user needs only to delete the mailbox associated with the disposable email address.

[0007] Such systems, while obviously undesirable for phishers and spammers, may be very desirable for legitimate senders and marketers. Such systems may also be desirable for email service providers, such as hotmail, for example, as such systems provide for the creation of fewer temporary accounts.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] FIG. 1 is a functional block diagram of a system for providing disposable email addresses.

[0009] FIG. 2A-2D depict a user interface and method for selecting a disposable email address.

[0010] FIG. 3 depicts an email client user interface and method for providing emails directed to disposable emails addresses in dedicated folders.

[0011] FIG. 4 is a block diagram of an example computing environment in which example embodiments and aspects may be implemented.

DETAILED DESCRIPTION OF ILLUSTRATIVE EMBODIMENTS

[0012] FIG. 1 is a functional block diagram of a system for providing disposable email addresses. As shown, such a system may include an email client 12 and browser 14 running on an end-user device 10. The end-user device 10 may be a desktop, laptop, or hand-held computing device, for example. Email clients are well-known. Microsoft Outlook is an example of an email client. Browsers are also well-known. Microsoft Internet Explorer is an example of a browser. The end-user device 10 may also have a data store 18 and a display 16.

[0013] The system may include an email service 22 running on an email server 20. Email services are well-known. Microsoft Exchange is an example of an email service. The email server 20 may include a data store 24. The email server 20 and the end-user device 10 may be interconnected via a local- or wide-area communications network, such as the Internet, for example.

[0014] An Internet-based enterprise 30 may be interconnected with the email server 20 and the end-user device 10 via a local- or wide-area communications network, such as the Internet, for example.

[0015] FIGs. 2A-2D depict a user interface and method for selecting a disposable email address in a "trusted" sender's scenario. An example of such a scenario may be where the end-user is attempting to change his/her address or phone number that had been previously provided online to the user's bank. Such information is typically stored by such an enterprise. The user can "trust" that the enterprise will protect his/her personal information, such as his/her primary email address, social security number, mother's maiden name, *etc*. The end-user also wants to be sure that emails from that enterprise do not end up in the user's junk folder. However, the end-user wants to be able to differentiate legitimate emails from the enterprise from phish.

[0016] FIG. 2A depicts a typical user-interface (*e.g.* a web page) wherein a user is expected to provide an email address (among other things). Separate fields may be provided for entry of such information. Each field may have a respective name, such as "Email," for example. As shown in FIG. 2A, the user has entered his "primary" email address.

[0017] FIG. 2B depicts a "pop-up" window cautioning the end-user that he/she is about to give away his/her primary email address. The browser software running on the end-user device may detect that the web page includes a request for an email address. A browser plug-in may be used to discover that a web service such as described herein is available to a

currently authenticated user. The detection could occur at the time the web page is rendered, at the time the user clicks into the "Email" field, or at the time the user selects the "submit" button. In any event, when the browser detects that the user has been requested to provide an email address, the browser may react by providing such a pop-up.

[0018] The pop-up may caution the user of the risks associated with giving away his primary email address, and offer the user an opportunity to provide a "secure" address that is "dedicated" to the user's current need, *e.g.*, for use with the bank. The pop-up may also provide a list of previously-supplied disposable addresses. The browser may populate a list with such existing relationships. Note that a friendly name may be assigned to each of the disposable addresses. For example, the user may have previously set-up a disposable email address for use with his/her Visa card. Rather than displaying the actual disposable email address, the pop-up window may display "Visa" or any other "friendly" name the user may have associated with that disposable address. The associations between the friendly names and the disposable addresses may be stored in the data store on the end-user device.

[0019] As shown in FIG. 2C, the user can select from among the previously-created disposable addresses. Alternatively, the user could create a new disposable address by selecting the "Create new ..." button, or ignore the pop-up by selecting the "Cancel" button. As shown, the user is inclined to select a disposable address associated with the user's bank. The disposable address has the friendly name "First Tech."

[0020] As shown in FIG. 2D, the browser automatically inserts the selected disposable address into the Email field. Note that the actual address, and not the friendly name, is inserted into the field. The user may then select the "Submit" button to provide the requested information, including the disposable email address, to the Internet-based enterprise.

[0021] Thereafter, emails received from the Internet-based enterprise may be provided to the email client in some fashion that distinguishes them from emails directed to the primary email address, and as being from a trusted provider. For example, emails directed from the enterprise to the disposable address may be annotated in a way that makes them stand out as being legitimate. Alternatively, the email from the trusted provider may be presented in a dedicated folder associated with the disposable address. The email service may partition the user's to create such a dedicated folder. Such partitioning may occur, for example, when the disposable address is first created, or when a first email directed to that address is received.

[0022] FIG. 3 depicts an email client user interface and method for providing emails directed to disposable emails addresses in dedicated folders. When communications arrive from the enterprise, the email service, following a "rule" associated with the mailbox, may move the email to a dedicated folder. Note the folders list showing the mailbox being partitioned into, among other things, an Inbox, a Junk Mail folder, and a Secure Relationships folder. The Secure Relationships folder is further partitioned into sub-folders for specific trusted relationships. Each of the trusted relationship folders is displayed by its friendly name, *e.g.*, AmEx, WellsFargo, First Tech. An authentication technique, such as SIDF (Sender ID Framework), for example, may be used to allow only emails from the domain associated with the enterprise to be routed to the dedicated folder.

[0023] If the user wishes to "unsubscribe," (*i.e.*, to cease getting electronic communications from the trusted enterprise), the user needs only to delete the dedicated folder associated with the enterprise. The mailbox rule associated with that folder will also be deleted, and all existing content from the relationship may be preserved or deleted. The recipient filter may begin rejecting emails directed to the disposable address automatically and provide an appropriate SMTP response, such as "this recipient unsubscribed from this communication."

[0024] The systems and methods described herein are likely to provide end users with increased confidence and enhanced user experiences with email media (*e.g.*, images). Phishing is likely to be ineffective, because anything that appears to be from a trusted enterprise, but is not properly annotated or found in the appropriate folder, is unlikely to be from the trusted sender. Accordingly, the user can feel safe in deleting and not acting on such incoming communications. Filters can also be designed to detect and filter out such communications. Thus, though phish might still arrive in a junk folder or even in the inbox, the end user can recognize it and not act on it.

[0025] Additionally, users will likely be hit with less spam. Spam address lists will become harder to sell because sellers of such lists will become more identifiable, risking reputation taint. Spam address lists will be harder to maintain accurately because entries expire. Spam will be easier to recognize. For example, a random subject email sent to a disposable address can be deleted without opening.

[0026] Meanwhile, the systems and methods described herein also provide benefits to legitimate senders, such as increased deliverability and visibility of legitimate email. Financial statements, for example, need not be buried with other mail items or lost in junk

mail. There is no incentive to share the disposable address with others, and thus risk unsubscription.

[0027] Such systems may also be better for marketers in the sense of improved ad targeting. People may be more likely to give a more accurate and precise profile if they can be sure that the profile cannot be linked back to their primary email address and identification. A better view and cross-correlation on backend for marketers may be provided where such a system is in place.

Exemplary Computing Arrangement

[0028] Figure 4 shows an exemplary computing environment in which example embodiments and aspects may be implemented. The computing system environment 100 is only one example of a suitable computing environment and is not intended to suggest any limitation as to the scope of use or functionality. Neither should the computing environment 100 be interpreted as having any dependency or requirement relating to any one or combination of components illustrated in the exemplary operating environment 100.

[0029] Numerous other general purpose or special purpose computing system environments or configurations may be used. Examples of well known computing systems, environments, and/or configurations that may be suitable for use include, but are not limited to, personal computers, server computers, hand-held or laptop devices, multiprocessor systems, microprocessor-based systems, set top boxes, programmable consumer electronics, network PCs, minicomputers, mainframe computers, embedded systems, distributed computing environments that include any of the above systems or devices, and the like.

[0030] Computer-executable instructions, such as program modules, being executed by a computer may be used. Generally, program modules include routines, programs, objects, components, data structures, etc. that perform particular tasks or implement particular abstract data types. Distributed computing environments may be used where tasks are performed by remote processing devices that are linked through a communications network or other data transmission medium. In a distributed computing environment, program modules and other data may be located in both local and remote computer storage media including memory storage devices.

[0031] With reference to Figure 4, an exemplary system includes a general purpose computing device in the form of a computer 110. Components of computer 110 may include, but are not limited to, a processing unit 120, a system memory 130, and a system bus 121 that couples various system components including the system memory to the processing unit 120.

The processing unit 120 may represent multiple logical processing units such as those supported on a multi-threaded processor. The system bus 121 may be any of several types of bus structures including a memory bus or memory controller, a peripheral bus, and a local bus using any of a variety of bus architectures. By way of example, and not limitation, such architectures include Industry Standard Architecture (ISA) bus, Micro Channel Architecture (MCA) bus, Enhanced ISA (EISA) bus, Video Electronics Standards Association (VESA) local bus, and Peripheral Component Interconnect (PCI) bus (also known as Mezzanine bus). The system bus 121 may also be implemented as a point-to-point connection, switching fabric, or the like, among the communicating devices.

[0032] Computer 110 typically includes a variety of computer readable media. Computer readable media can be any available media that can be accessed by computer 110 and includes both volatile and nonvolatile media, removable and non-removable media. By way of example, and not limitation, computer readable media may comprise computer storage media and communication media. Computer storage media includes both volatile and nonvolatile, removable and non-removable media implemented in any method or technology for storage of information such as computer readable instructions, data structures, program modules or other data. Computer storage media includes, but is not limited to, RAM, ROM, EEPROM, flash memory or other memory technology, CDROM, digital versatile disks (DVD) or other optical disk storage, magnetic cassettes, magnetic tape, magnetic disk storage or other magnetic storage devices, or any other medium which can be used to store the desired information and which can accessed by computer 110. Communication media typically embodies computer readable instructions, data structures, program modules or other data in a modulated data signal such as a carrier wave or other transport mechanism and includes any information delivery media. The term "modulated data signal" means a signal that has one or more of its characteristics set or changed in such a manner as to encode information in the signal. By way of example, and not limitation, communication media includes wired media such as a wired network or direct-wired connection, and wireless media such as acoustic, RF, infrared and other wireless media. Combinations of any of the above should also be included within the scope of computer readable media.

[0033] The system memory 130 includes computer storage media in the form of volatile and/or nonvolatile memory such as read only memory (ROM) 131 and random access memory (RAM) 132. A basic input/output system 133 (BIOS), containing the basic routines that help to transfer information between elements within computer 110, such as during start-up, is typically stored in ROM 131. RAM 132 typically contains data and/or

program modules that are immediately accessible to and/or presently being operated on by processing unit 120. By way of example, and not limitation, Figure 4 illustrates operating system 134, application programs 135, other program modules 136, and program data 137.

[0034] The computer 110 may also include other removable/non-removable, volatile/nonvolatile computer storage media. By way of example only, Figure 4 illustrates a hard disk drive 140 that reads from or writes to non-removable, nonvolatile magnetic media, a magnetic disk drive 151 that reads from or writes to a removable, nonvolatile magnetic disk 152, and an optical disk drive 155 that reads from or writes to a removable, nonvolatile optical disk 156, such as a CD ROM or other optical media. Other removable/non-removable, volatile/nonvolatile computer storage media that can be used in the exemplary operating environment include, but are not limited to, magnetic tape cassettes, flash memory cards, digital versatile disks, digital video tape, solid state RAM, solid state ROM, and the like. The hard disk drive 141 is typically connected to the system bus 121 through a non-removable memory interface such as interface 140, and magnetic disk drive 151 and optical disk drive 155 are typically connected to the system bus 121 by a removable memory interface, such as interface 150.

[0035] The drives and their associated computer storage media discussed above and illustrated in Figure 4, provide storage of computer readable instructions, data structures, program modules and other data for the computer 110. In Figure 4, for example, hard disk drive 141 is illustrated as storing operating system 144, application programs 145, other program modules 146, and program data 147. Note that these components can either be the same as or different from operating system 134, application programs 135, other program modules 136, and program data 137. Operating system 144, application programs 145, other program modules 146, and program data 147 are given different numbers here to illustrate that, at a minimum, they are different copies. A user may enter commands and information into the computer 20 through input devices such as a keyboard 162 and pointing device 161, commonly referred to as a mouse, trackball or touch pad. Other input devices (not shown) may include a microphone, joystick, game pad, satellite dish, scanner, or the like. These and other input devices are often connected to the processing unit 120 through a user input interface 160 that is coupled to the system bus, but may be connected by other interface and bus structures, such as a parallel port, game port or a universal serial bus (USB). A monitor 191 or other type of display device is also connected to the system bus 121 via an interface, such as a video interface 190. In addition to the monitor, computers may also include other

peripheral output devices such as speakers 197 and printer 196, which may be connected through an output peripheral interface 195.

[0036] The computer 110 may operate in a networked environment using logical connections to one or more remote computers, such as a remote computer 180. The remote computer 180 may be a personal computer, a server, a router, a network PC, a peer device or other common network node, and typically includes many or all of the elements described above relative to the computer 110, although only a memory storage device 181 has been illustrated in Figure 4. The logical connections depicted in Figure 4 include a local area network (LAN) 171 and a wide area network (WAN) 173, but may also include other networks. Such networking environments are commonplace in offices, enterprise-wide computer networks, intranets and the Internet.

[0037] When used in a LAN networking environment, the computer 110 is connected to the LAN 171 through a network interface or adapter 170. When used in a WAN networking environment, the computer 110 typically includes a modem 172 or other means for establishing communications over the WAN 173, such as the Internet. The modem 172, which may be internal or external, may be connected to the system bus 121 via the user input interface 160, or other appropriate mechanism. In a networked environment, program modules depicted relative to the computer 110, or portions thereof, may be stored in the remote memory storage device. By way of example, and not limitation, Figure 4 illustrates remote application programs 185 as residing on memory device 181. It will be appreciated that the network connections shown are exemplary and other means of establishing a communications link between the computers may be used.

[0038] Although the subject matter has been described in language specific to structural features and/or methodological acts, it is to be understood that the subject matter defined in the appended claims is not necessarily limited to the specific features or acts described above. Rather, the specific features and acts described above are disclosed as example forms of implementing the claims.

What is Claimed:

1. A method for providing sign-up email addresses, the method comprising:

providing a user with an option to enter a sign-up email address into a user interface provided by an Internet enterprise (30), the user interface requesting an email address, the sign-up email address being different from a primary email address associated with the user;

providing to an email service (22) an association between the sign-up email address and the primary email address;

providing to the email service (22) an association between the sign-up email address and the enterprise (30); and

providing a user interface wherein an email directed from the enterprise (30) to the sign-up email address is presented in a manner that distinguishes it from emails directed to the primary email address.

2. The method of claim 1, further comprising detecting that a user has been requested to provide an email address into a web page provided by an Internet-based enterprise (30);

3. The method of claim 1, wherein the address is generated on behalf of the end user or the end user is enabled to customize the address.

4. The method of claim 1, further comprising associating a friendly name with the sign-up address.

5. The method of claim 1, wherein providing the user interface comprises providing a folder list that includes a dedicated folder that is associated with the sign-up email address.

6. The method of claim 5, wherein the email directed from the enterprise (30) to the sign-up email address is presented in the dedicated folder.

7. The method of claim 5, wherein the email directed from the enterprise (30) to the sign-up email address is annotated and presented in an mailbox associated with the primary email address.

8. The method of claim 1, further comprising storing a list of previously-created sign-up addresses, along with a respective friendly name associated with each.

9. The method of claim 8, wherein providing the user with the option to enter a sign-up email address into the user interface comprises providing the user with an option to select one of the previously-created sign-up addresses from the list.

10. The method of claim 1, wherein providing the user with the option to enter a sign-up email address into the user interface comprises providing the user with an option to create a new sign-up address and associate a friendly name with it.

11. A method for providing sign-up email addresses, the method comprising:

receiving an association between a sign-up email address and a primary email address associated with an end-user of an email service (22);

receiving an association between the sign-up email address and an Internet-based enterprise (30);

receiving an email directed to the sign-up address from the Internet-based enterprise (30); and

providing the email to an email client (12) in a form that distinguishes it from emails directed to the primary email address.

12. The method of claim 11, wherein providing the email to the email client (12) comprises providing the email to a dedicated folder associated with the sign-up address.

13. The method of claim 12, further comprising partitioning a mailbox associated with the user to create the dedicated folder.

14. The method of claim 11, further comprising annotating the email directed to the sign-up address from the Internet-based enterprise (30).

15. The method of claim 11, further comprising authenticating the identity of the sender of the email, and not annotating the email if the sender is not authenticated.

16. A system for providing sign-up email addresses, the system comprising:

a first computing device (20) executing computer-program instructions for providing an email service (22); and

a second computing device (10) executing computer-program instructions for providing an email client (12) and a browser (14);

wherein the browser (14) detects that a user has been requested to provide an email address into a web page provided by an Internet-based enterprise (30), provides the user with an option to enter a sign-up email address into the user interface, the sign-up email address being different from a primary email address associated with the user, provides to the email service (22) an association between the sign-up email address and the primary email address, and provides to the email service (22) an association between the sign-up email address and the enterprise; and

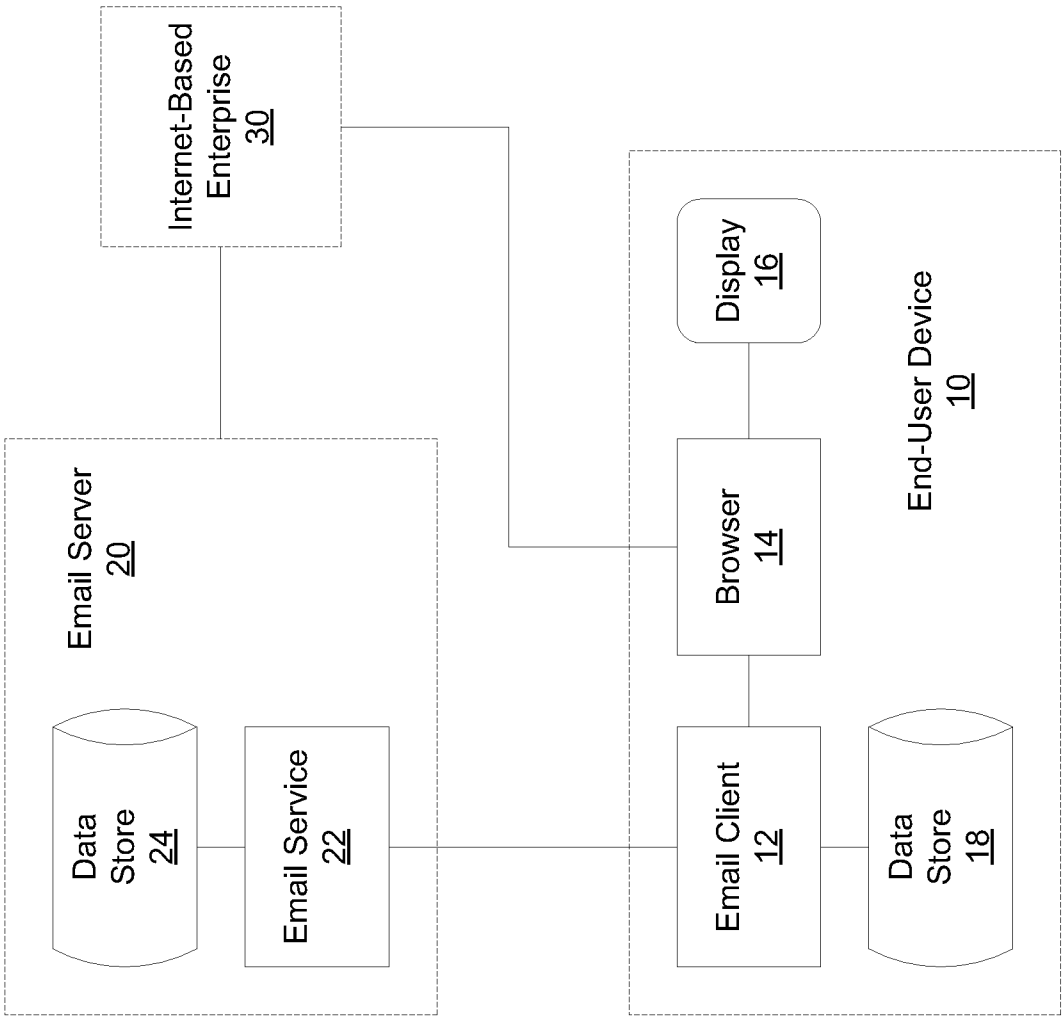
wherein the email service (22) receives the association between the sign-up email address and the primary email address, receives the association between the sign-up email address and the Internet-based enterprise (30), receives an email directed to the sign-up address from the Internet-based enterprise (30), and provides the email to the email client (12) in a form that distinguishes it from emails directed to the primary email address.

17. The system of claim 16, wherein the email client (12) provides a user interface wherein the email directed from the enterprise (30) to the sign-up email address is presented in a manner that distinguishes it from emails directed to the primary email address.

18. The system of claim 17, wherein the email service (22) annotates the email directed to the sign-up address from the Internet-based enterprise (30) in a manner that distinguishes it from emails directed to the primary address, and the email client (12) presents the email in an inbox associated with the primary address.

19. The method of claim 17, wherein the email service (22) provides the email to a dedicated folder in a mailbox associated with the user, and the email client (12) presents the email in the dedicated folder.

20. The method of claim 19, wherein the email service (22) partitions the mailbox associated with the user to create the dedicated folder.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Email Service 22
Display 16
Browser 14
End-User Device 10
Email Client 12
Data Store 18

FIG. 1

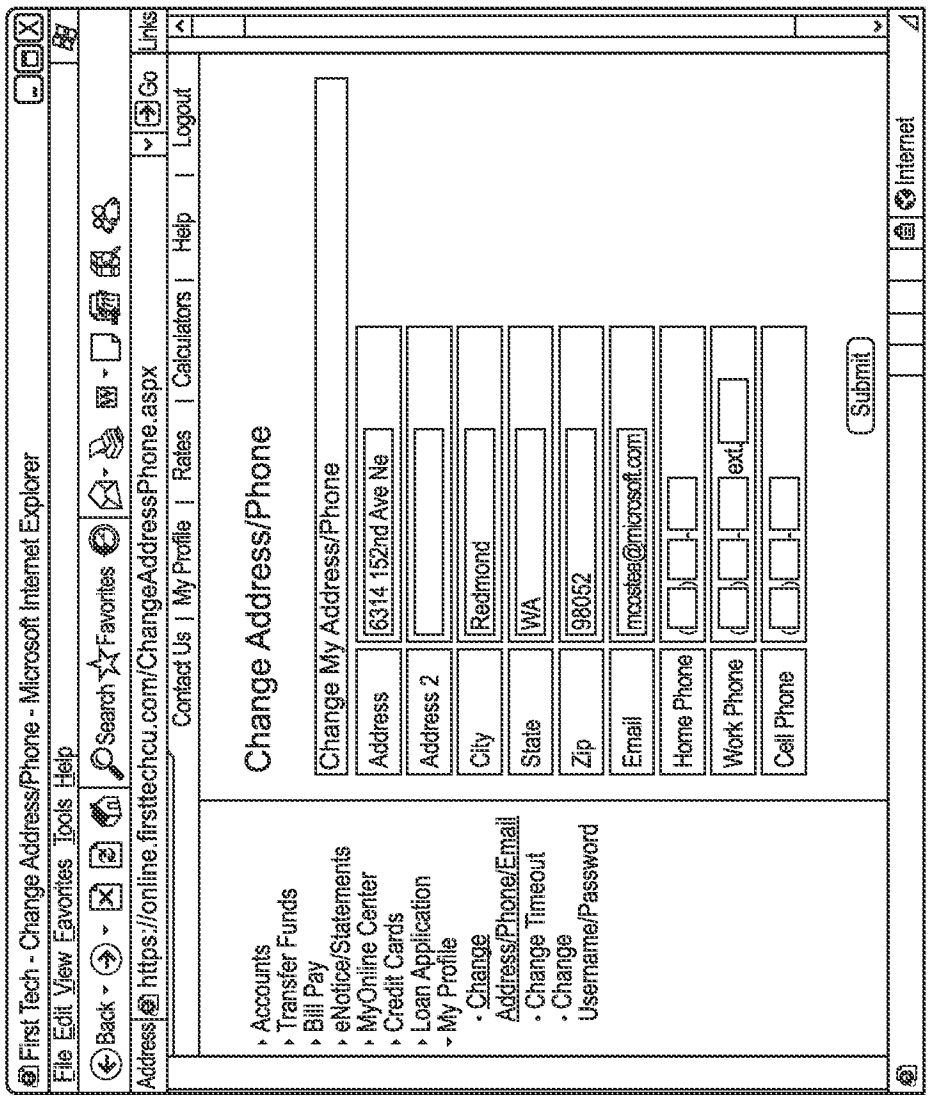
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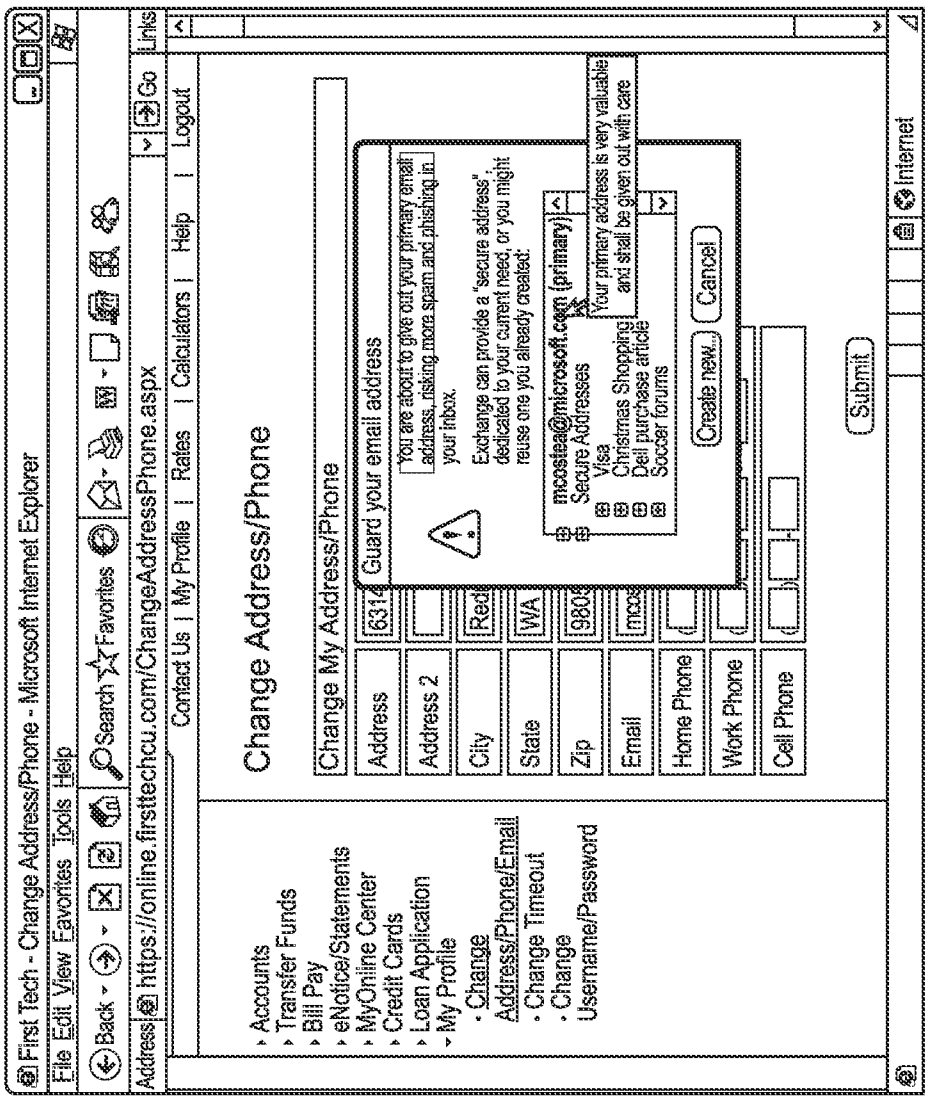
FIG. 2A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Credit Cards
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My Profile
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6314
Address 2
City
Red
State
WA
Zip
980
Email
mca
Home Phone
Work Phone
Cell Phone
Guard your email address
You are about to give out your primary email address, risking more spam and phishing in your inbox.
Exchange can provide a "secure address", dedicated to your current need, or you might reuse one you already created:
mcostea@microsoft.com (primary)
Secure Addresses
Visa
Christmas Shopping
Dell purchase article
Soccer forums
Your primary address is very valuable and shall be given out with care
Create new...
Cancel
Submit
Internet

FIG. 2B

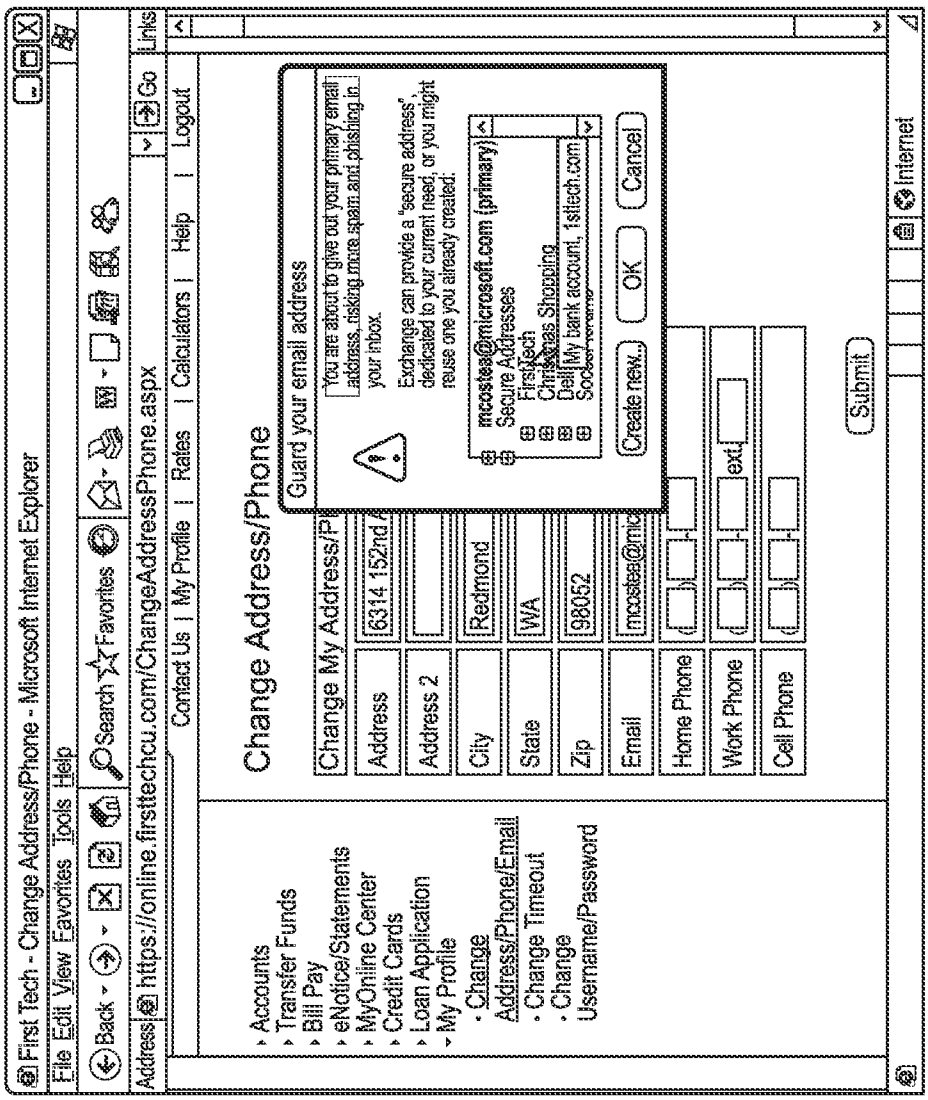
First Tech - Change Address/Phone - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back
Search
Favorites
Address https://online.firsttechcu.com/ChangeAddressPhone.aspx
Go
Links
Contact Us | My Profile | Rates | Calculators | Help | Logout
Accounts
Transfer Funds
Bill Pay
eNotice/Statements
MyOnline Center
Credit Cards
Loan Application
My Profile
Change Address/Phone/Email
Change Timeout
Change Username/Password
Change Address/Phone
Guard your email address
Change My Address/P
Address
6314 152nd
Address 2
City
Redmond
State
WA
Zip
98052
Email
mcostes@mic
Home Phone
Work Phone
ext.
Cell Phone
You are about to give out your primary email address, risking more spam and phishing in your inbox.
Exchange can provide a "secure address", dedicated to your current need, or you might reuse one you already created.
mcostes@microsoft.com (primary)
Secure Addresses
FirstTech
Christmas Shopping
Dell
My bank account, 1sttech.com
Create new..
OK
Cancel
Submit
Internet

FIG. 2C

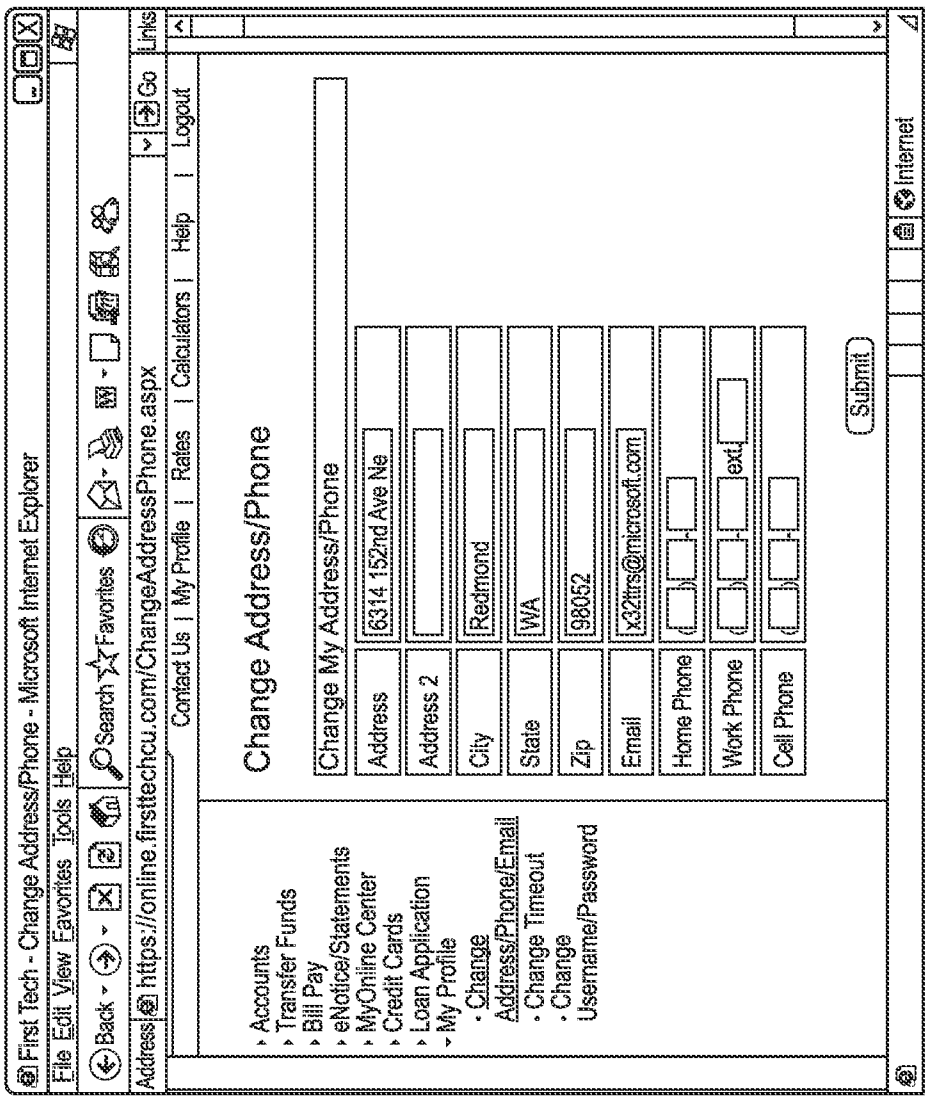
First Tech - Change Address/Phone - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back
Search
Favorites
Address https://online.firsttechcu.com/ChangeAddressPhone.aspx
Go
Links
Contact Us | My Profile | Rates | Calculators | Help | Logout
Accounts
Transfer Funds
Bill Pay
eNotice/Statements
MyOnline Center
Credit Cards
Loan Application
My Profile
Change Address/Phone/Email
Change Timeout
Change Username/Password
Change Address/Phone
Change My Address/Phone
Address
6314 152nd Ave Ne
Address 2
City
Redmond
State
WA
Zip
98052
Email
x32ftrs@microsoft.com
Home Phone
Work Phone
ext.
Cell Phone
Submit
Internet

FIG. 2D

Inbox– Outlook
File Edit View Go Tools Actions Help
Label 1 Label 1 Label 1 Label 1 Label 1
Mail
Inbox
A message from First Tech: watch out for...
To-Do...
Inbox
Junk mail
Secure Relationships
I Trust These Guys
AmEx
WellsFargo
First Tech
Photography Forums
Laptop purchase for my daughter
Ebay to get that camera
Refinancing quotes
First Tech 12:16pm New services for this Chris..
First Tech 12:16pm A message from First...
support@firstte 12:16pm Re: Overdraft fee
support@firstte 12:16pm Re: Overdraft fee
First Tech 12:16pm Your credit card limit...
First Tech 12:16pm Welcome for First Te...
First Tech credit Union
Tie 10/24/2006 11:20
Think twice before accepting a one-sided home loan
Open your mailbox and you might find a few offers to "cut your monthly mortgage payments in half." They might even look like they're coming from First Tech Credit Union. Rest assured, these offers are almost never the right option for the offer is to dial the credit union and ask us if we actually called or mailed you to discuss your home loan.
Call First Tech if you have any questions at 800.637.0852. You can also stop by almost any branch or visit firsttechcu.com. You'll discover how we can help you avoid bad offers and find the best refinance option right here at First Tech.
This email was delivered to you on behalf of First Tech Credit Union. You can unsubscribe form First Tech Credit Union's email list. If you request to be taken off First Tech Credit Union's email list, First Tech Credit Union will honor your request.
Microsoft Confidential
To-do
To-do
To-do
To-do
To-do
To-do
Mail
Calendar
Contacts
Tasks
Page 6 of 6

FIG. 3

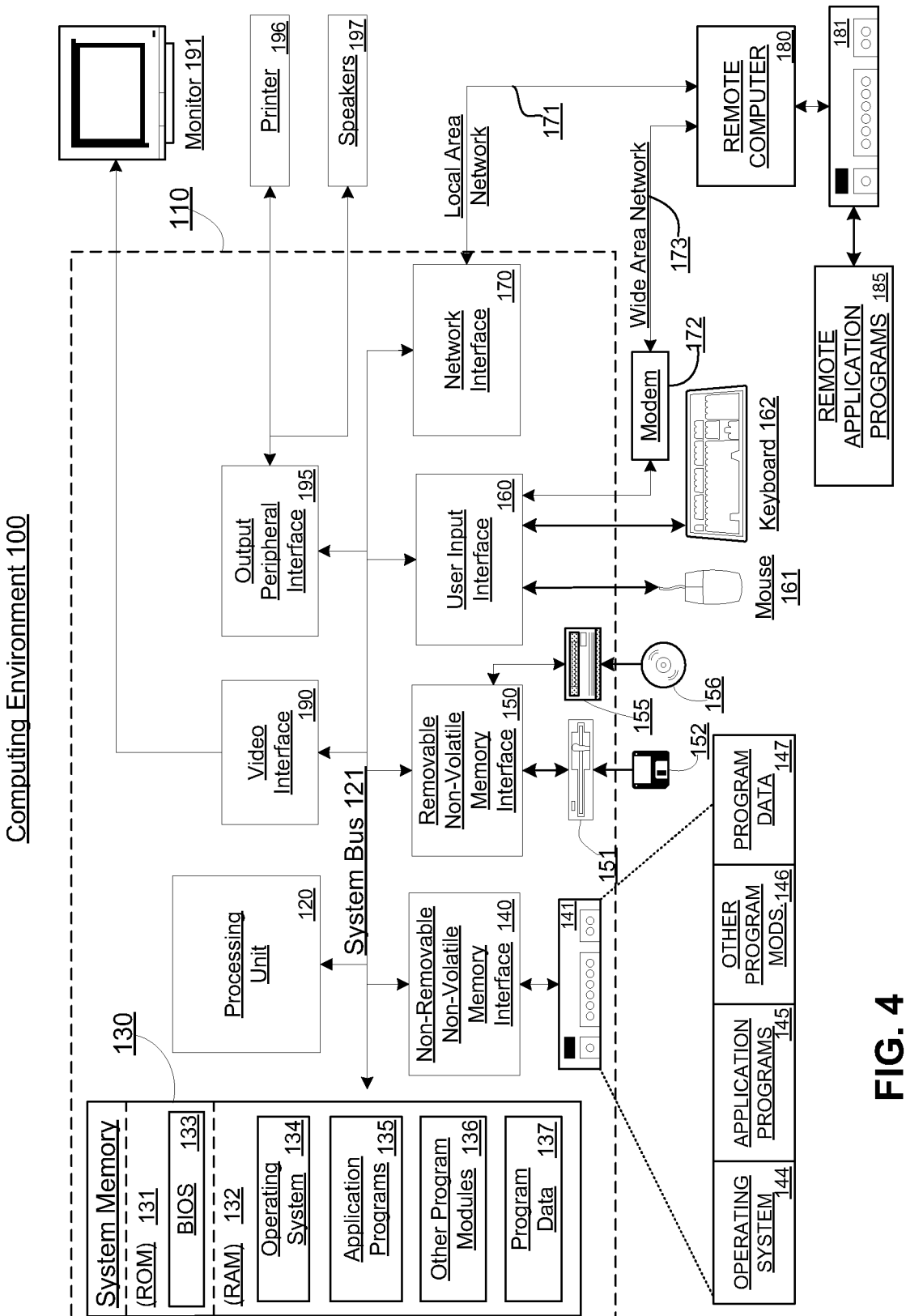
Computing Environment 100
110
Monitor 191
Printer 196
Speakers 197
Local Area Network
171
REMOTE COMPUTER 180
181
Wide Area Network
173
Modem 172
Network Interface 170
REMOTE APPLICATION PROGRAMS 185
Output Peripheral Interface 195
User Input Interface 160
Keyboard 162
Mouse 161
Video Interface 190
Removable Non-Volatile Memory Interface 150
155
156
152
151
Processing Unit 120
System Bus 121
Non-Removable Non-Volatile Memory Interface 140
141
130
System Memory
(ROM) 131
BIOS 133
(RAM) 132
Operating System 134
Application Programs 135
Other Program Modules 136
Program Data 137
OPERATING SYSTEM 144
APPLICATION PROGRAMS 145
OTHER PROGRAM MODS. 146
PROGRAM DATA 147

FIG. 4

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2008/060160

A. CLASSIFICATION OF SUBJECT MATTER

G06Q 50/00(2006.01)i

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

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC8 G06F19/00, G06F17/00, G06Q10/00-99/00

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

Korean Utility models and applications for Utility models since 1975

Japanese Utility models and applications for Utility models since 1975

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

PAJ, FPD, USPAT, eKIPASS "Keyword: sign-up, disposable, alias, email, folder, annotate"

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2005-0114453 A1 (DICK C. HARDT) 26 May 2005 See the abstract; claims 19-28; figure 3.	1-18
Y	US 2006-0041621 A1 (MILES LIBBEY) 23 February 2006 See the abstract; claims 1-15; figures 2-3.	1-18
A	US 2002-0152272 A1 (RAHAV YAIRI) 17 October 2002 See the abstract; claim 1; figure 1.	1-18
A	US 2005-0210107 A1 (FREDERIC MORA) 22 September 2005 See the abstract; claim 1; figure 4.	1-18

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents,such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
24 SEPTEMBER 2008 (24.09.2008)	**24 SEPTEMBER 2008 (24.09.2008)**

Name and mailing address of the ISA/KR

Korean Intellectual Property Office
Government Complex-Daejeon, 139 Seonsa-ro, Seo-gu, Daejeon 302-701, Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

WEE Jae Woo

Telephone No. 82-42-481-8540

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2008/060160

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☒ Claims Nos.: 19, 20
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

A subject matter which dependent claims 19, 20 disclose does not match with a subject matter which claim 17 discloses. (PCT Article 6)

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required addtional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.

☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.

☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2008/060160

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2005-0114453 A1	26.05.2005	None	
US 2006-041621 A1	23.02.2006	WO 2005-112596 A2	01.12.2005
		WO 2005-112596 A3	07.09.2007
US 2002-0152272 A1	17.10.2002	WO 2002-084500 A1	24.10.2002
US 2005-210107 A1	22.09.2005	CN 1918865 A	21.02.2007
		JP 2007-529932 T2	25.10.2007
		KR 10-2007-0019693 A	15.02.2007
		US 7237010 B2	26.06.2007
		WO 2005-091187 A2	29.09.2005