Title: COMMUNICATIONS SYSTEM

Abstract: A communications system comprising a web server hosting a website accessible via the Internet by first and second users, the web server being configured to receive message data from the first user and to retain the message data in a database, the web server further being configured to receive from the first user an email address of the second user and to send a notification email to the email address of the second user, wherein the notification email includes a hyperlink to the web server together with information relating to the location of the message data in the database, to allow the second user to access the message data by accessing the website via the hyperlink, the web server being configured to retain status information which relates to the message data.
COMMUNICATIONS SYSTEM

The present invention relates to a communications system, and particularly to a communications system which utilises the Internet.

Internet communications are conventionally sent using the Transmission Control Protocol (TCP) and Internet Protocol (IP) and/or using the Wireless Application Protocol (WAP). It is anticipated that other mobile Internet connection technologies will be used in the future, including the forthcoming IPV6 protocol. The most commonly used form of Internet communication is email.

Conventionally, an email message bearing the address of an intended recipient is sent from a user’s computer to a mail server, and from the mail server onto the Internet. The email message travels through the Internet to the mail server of the intended recipient.

When a user wishes to check whether he has received any email messages, he logs onto his mail server which will inform him if he has new email messages. If the user does have new email messages, these are downloaded to the user’s computer and opened using mail reader software.

A user may be a private subscriber to an Internet Service Provider (ISP). Where this is the case, when he wishes to check his messages he connects his computer via a telephone link to the mail server of the ISP. The mail server will inform the user if he has any new email messages; the new email messages are downloaded onto the user’s computer so that he may read them.

A user may be an employee of a company that has an intranet. Where this is the case, his computer may be connected during working hours via that intranet to a mail server. Whenever the mail server receives an email message addressed to the user, it sends the email message to the user’s computer. If the email message is from another employee of the company, then the email will travel from the sender to the
recipient via the intranet, and will not travel via the Internet. An email message from outside of the company will be received via the Internet.

Email messages may be sent and received from any suitable electronic device, for example it is possible to send email messages from mobile telephones using the Wireless Application Protocol.

It is possible to send voice messages via the Internet, for example from mobile telephones using the Wireless Application Protocol.

A disadvantage of conventional Internet communication systems is that it is difficult to determine with certainty whether an electronic communication has reached its destination and has been opened by the intended recipient.

International Patent Application WO01/93069 describes a method of Internet communication in which a website allows messages to be sent between subscribers to the website. The website retains status information which indicates whether the messages have been opened. If the messages have been opened, the status information indicates the time and date upon which the messages were opened.

A first user of the website described in WO01/93069 may compose a message by logging onto the website and writing the message. The user addresses the message to another user that is a member of the website. Unlike a conventional email message, the message does not pass via the Internet after it has been composed, but is retained at the website. When the second user logs onto the website, he is informed that he has a new message from the first user, and may open this message by selecting it at the website. The message is displayed to the second user from the website. The website retains data which indicates the date and time at which the message was opened. This information is accessible by the first user and may in addition be accessible to the second user. This means that the first user can determine whether the message has been opened, and if so when it was opened. The website allows both parties to be assured of what messages have been read and when they were read. This
is a significant advantage over conventional email systems, in which it may occasionally be the case that emails are lost in the Internet and never reach their intended recipient, so that the intended recipient is not aware that a message has been sent to him whereas the sender believes that the recipient has received the message.

A disadvantage of the website described in WO01/93069 is that it only allows communication between subscribers to the service provided by the website.

It is an object of the present invention to provide a communications system which overcomes or mitigates the above disadvantage.

According to a first aspect of the invention there is provided a web server hosting a website accessible via the Internet by first and second users, the web server being configured to receive message data from the first user and to retain the message data in a database, the web server further being configured to receive from the first user an email address of the second user and to send a notification email to the email address of the second user, wherein the notification email includes a hyperlink to the web server together with information relating to the location of the message data in the database, to allow the second user to access the message data by accessing the website via the hyperlink, the web server being configured to retain status information which relates to the message data.

The invention is advantageous because the second user is not required to register at the website in order to access the message data, yet the first user knows with certainty if the second user has accessed the message data.

Preferably, the web server is configured to allow second user to access the message data without the second user being required to provide identification information.

Preferably, the message data is displayed to the second user as a message page of the website.
The web server may be configured such that the second user cannot access other pages of the website starting from the message page of the website.

Alternatively, the web server may be configured such that the second user may access other pages of the website starting from the message page of the website, if the second user provides identification information.

The identification information may comprise an identifier and a password. Alternatively, the identification information may comprise registration information, the server being configured to retain the registration information in a database.

The web server may be configured to allow the second user to compose a message addressed to the first user, the message being retained in a database to allow it to be accessed by the first user.

The web server may be configured to allow the second user to compose a message addressed to the first user, the message comprising a conventional email which is addressed to an email account of the first user.

Preferably, the notification email identifies the first user.

Preferably, the notification email identifies the subject matter of the message.

Preferably, the status information retained by the web server comprises whether or not the message has been viewed by the second user.

Preferably, the status information retained by the web server comprises the date and time upon which the message was opened by the second user.

The system may be arranged such that status information retained by the web server may be accessed only by the first user. Alternatively, the system may be
arranged such that the status information retained by the web server may be accessed by the first user or the second user.

According to a second aspect of the invention there is provided a method of communication performed by a web server hosting a website accessible via the Internet by first and second users, the method comprising receiving message data from the first user and retaining the message data in a database, receiving from the first user an email address of the second user and sending a notification email to the email address of the second user, wherein the notification email includes a hyperlink to the web server together with information relating to the location of the message data in the database, to allow the second user to access the message data by accessing the website via the hyperlink, the method further comprising retaining status information which relates to the message data.

The second aspect of the invention may include preferred or alternative features of the first aspect of the invention.

An embodiment of the present invention will now be described by way of example only with reference to the accompanying figures, in which:

Figure 1 is a schematic illustration of the invention; and

Figures 2 to 8 are screen prints from a website which embodies the invention.

The Internet may be considered to be a cloud comprising many interconnections which carry data between computers. The nature of the design of the Internet is such that there is no central entity or hub through which all data passes. Data is broken into packets using the Transmission Control Protocol (TCP) and is delivered to its destination via routers in accordance with an Internet Protocol (IP) address. Although TCP is currently used it is anticipated that forthcoming protocols, for example IPV6, will provide the same function but with improved address capacity, data transfer capacity and integrity of data transfer.
Referring to figure 1, a first user operates a computer 1 which is connected via a server 2 to the Internet 3. A second user operates a second computer 2 which is connected via a second server 4 to the Internet 3. A website which embodies the invention is set up on a website server 6.

The first user runs a known Web browser, for example Microsoft Internet Explorer (proprietary trademark), on his computer 1. The first user enters the Uniform Resource Locator (URL) of the website server 6 into the Web browser, which transfers the request via a server 2 onto the Internet.

The website server 6 sends the ‘login’ page of the website to the Web browser of the first computer 1 via the server 2. The login page is shown in figure 2. The first user may already be registered at the website. Where this is the case the first user enters his identification together with a password. The user then selects the ‘logon’ button, or presses the ‘enter’ key in order to log onto the website.

If the first user has not previously registered at the website, he must provide information in order to do so. To register at the website, the first user selects the ‘join PORT’ button. The first user is then presented with a web page which requests information, as shown in figure 3. In order to register, the first user is required to enter a password, a name and an email address. These are stored in a database. If any of these is not provided then the first user will not be registered at the website. In addition to the obligatory information, the first user may also provide additional optional information, for example postal address, telephone number, mobile telephone number and time zone. Once the first user has entered the obligatory information, and any of the optional information that the first user wishes to enter, the first user then selects the ‘join PORT’ button. The first user’s details are saved at the website server 6, to allow the user to access the website at a later date without having to resubmit the information already provided. The first user is provided with an identification which is used to identify the first user for subsequent log-ins.
To compose a message the first user is presented with a 'compose message' screen, as shown in figure 4. Other users that are registered at the website, and which have authorised the first user to send messages to them, are listed in the upper left hand box of the compose screen. In an alternative arrangement the list of users may be held in a folder system which may be browsed by the first user. When the first user wishes to send a message to a registered user, the first user selects the name of the intended recipient, composes the message, and selects the 'send message' button. The message is retained at the web server to allow the recipient to view the message when he next logs on to the website.

The first user may wish to compose a message which is to be sent to a user that has not registered at the website. When this is the case it is not possible to select the intended recipient from the top left hand box of the compose screen, since this includes only users that have registered at the website. Instead, an email address of the intended recipient is entered in the 'email' box as shown. The subject and the message itself are written in the 'subject' and 'message' boxes as shown. The message is sent by selecting the 'send message' button.

When the user selects the 'send message' button, the web server sends an email to the email address that was entered by the user. However, the email does not contain the message from the message box of the compose screen (the contents of the email are described below). In addition to sending the email, the web server retains the message in a database to allow it to be accessed at a later time. The address location of the message is used to generate a hyperlink (described below).

Once the 'send message' button has been selected, the user is presented with an outbox screen, as shown in figure 5. The outbox screen displays sent messages, including the subject of the message, and the time at which the message was sent. The identity of the intended recipient is also displayed (this may be in the form of the email address of the intended recipient). The outbox also includes a status indicator which indicates whether sent messages have been read, and if so the times and dates upon which the sent messages were read.
The email that is sent from the website to the second user is shown in figure 6. The email is opened using conventional software, in this case Microsoft Outlook Express (proprietary trademark). The email that has been sent from the website is shown in figure 6 as the most recently received email (received at 10.49 on 29 April 2002).

The email identifies the name of the user that sent the message, together with the subject matter of the message. However, the email does not include the text of the message. Instead, the email informs the second user that there is a message for him, and that the sender of the message will be notified when the second user opens the message. The email invites the second user to open the message by selecting a ‘view message’ hyperlink. The hyperlink includes the Internet address of the website, and in addition indicates the address location of the message in the database at the web server.

Upon selecting the ‘view message’ hyperlink, the second user is connected to the website via an Internet browser and the server 2. The web server reads the message from the database, constructs a web page which displays the message, and sends the web page to the second user’s computer 2. The web server records the date and time that the message was read from the server. The recorded date and time are recorded in the database in association with the message.

The web page sent to the second user’s computer is shown in figure 7. The text of the message is visible to the second user. In this instance the message simply says ‘Hello’.

The message is opened by the second user at the website, as shown in figure 7. This is very different from conventional email messaging, in which the message is opened at a local server by a user. Since the message is opened at the website, this allows the time and date at which the message was opened to be recorded at the website server, as described above. This information can be accessed by the first
user. Referring to figure 8, the outbox of the first user indicates that the message was read by the second user, together with the time and date upon which the message was read. Of fundamental importance is that the second user cannot read the text of the message without going to the website, and as such a record that the message has been opened will always be retained at the web server. In addition, neither the first user nor the second user can modify the message, or its status. This means that the website provides a clear and unambiguous record of messages sent from the first user to the second user, together with the status of the messages.

The website may be configured to allow the first user to specify whether the second user may reply to the message. This is done via selection from a menu (not shown in figure 4) when composing the message. If the first user does not wish to receive a reply, then this is specified when composing the message. When this is done, the second user is unable to reply to the message, since he will not be presented with an address (email address or otherwise) to which he can send a reply.

The first user may wish to authorise the second user to reply to the message via email only. To do this the first user selects a ‘reply by email only’ button (not shown in figure 4), when composing the message. The message web page presented to the second user will include a ‘reply by email’ button (not shown in figure 6). On selecting the ‘reply by email’ button, the second user is presented with a conventional ‘compose screen’ which allows composition of a conventional email (for example Microsoft Outlook Express (proprietary trademark)). The email address of the first user was provided by the first user when the first user registered at the website (described above), and stored in a database. The web server retrieves the email address from the database and inserts it into the compose screen. When the second user selects the ‘send message’ button, the email is sent as a conventional email. Allowing the second user to reply by email, but not via the web server controlled messaging system, may be advantageous to the first user in circumstances in which the first user wishes to restrict the number of people that can send messages to him via the web server controlled messaging system.
The first user may wish to authorise the second user to reply to the message via the web server controlled messaging system described above. This may be the case if for example it is essential that the first user receives a reply to the message, or if the first user wishes to keep a copy of the reply at the web server. To do this the first user selects a ‘reply only once by POR’ button (not shown in figure 4), when composing the message. The message web page presented to the second user will include a ‘reply by POR’ button (not shown in figure 6). On selecting the ‘reply by POR’ button, the second user is presented with a compose screen similar to that shown in figure 4. The compose screen will automatically indicate the name of the first user as the recipient of the message. The second user cannot alter this. In addition, the second user cannot change the subject matter of the message, or add a conventional email address with the message. The second user is authorised only to write text into the message box. The second user selects the ‘send message’ button, whereupon the message is retained at the web server to allow the first user to view the message when he next logs on to the website. The second user is not authorised to send any further messages to the first user.

The first user may wish to authorise the second user to reply to the message via the web server controlled messaging system as described above, and in addition to send further messages to the first user via the web server controlled messaging system. To do this the first user selects an ‘authorise future messages via POR’ button (not shown in figure 4), when composing the message. The message web page presented to the second user will include a ‘logon to POR’ button (not shown in figure 6). On selecting the ‘logon to POR’ button the second user is directed to the ‘login’ page of the website (shown in figure 2). If the second user is already registered at the website, the second user enters identification details to log on to the website. When the second user goes to the ‘compose message’ screen, the first user will be included in the list of registered users to whom the second user is authorised to send messages. The second user may compose a message to the first user using the web server controlled messaging system. If the second user is not registered at the website, then the second user may register by selecting the ‘join POR’ button and following the procedure described above.
The email address may be used for an intended recipient who is already registered at the website, to notify the user that there is a message addressed to him at the proof of read website. When this is done the user may access the message directly by selecting the 'view message' link on the notification email. Where this is done the user will not be able to access other pages of the website apart from the message page, until the user has entered his identification and password.

Notification of the presence of unread messages may be via email as described above, and may be at any device capable of receiving emails, for example a computer of wireless application protocol (WAP) mobile telephone.

Messages sent between users using the described embodiment of the invention may include any type of data which may be presented via a web page, for example text, image or audio.
CLAIMS

1. A communications system comprising a web server hosting a website accessible via the Internet by first and second users, the web server being configured to receive message data from the first user and to retain the message data in a database, the web server further being configured to receive from the first user an email address of the second user and to send a notification email to the email address of the second user, wherein the notification email includes a hyperlink to the web server together with information relating to the location of the message data in the database, to allow the second user to access the message data by accessing the website via the hyperlink, the web server being configured to retain status information which relates to the message data.

2. A communications system according to claim 1, wherein the web server is configured to allow second user to access the message data without the second user being required to provide identification information.

3. A communications system according to claim 1 or claim 2, wherein the message data is displayed to the second user as a message page of the website.

4. A communications system according to claim 3, wherein the web server is configured such that the second user cannot access other pages of the website starting from the message page of the website.

5. A communications system according to claim 3, wherein the web server is configured such that the second user may access other pages of the website starting from the message page of the website, if the second user provides identification information.

6. A communications system according to claim 5, wherein the identification information comprises an identifier and a password.
7. A communications system according to claim 5, wherein the identification information comprises registration information, the server being configured to retain the registration information in a database.

8. A communications system according to any preceding claim, wherein the web server is configured to allow the second user to compose a message addressed to the first user, the message being retained in a database to allow it to be accessed by the first user.

9. A communications system according to any of claims 1 to 7, wherein the web server is configured to allow the second user to compose a message addressed to the first user, the message comprising a conventional email which is addressed to an email account of the first user.

10. A communications system according to any preceding claim, wherein the notification email identifies the first user.

11. A communications system according to any preceding claim, wherein the notification email identifies the subject matter of the message.

12. A communications system according to any preceding claim, wherein the status information retained by the web server comprises whether or not the message has been viewed by the second user.

13. A communications system according to claim 12, wherein the status information retained by the web server comprises the date and time upon which the message was opened by the second user.

14. A communications system according to any preceding claim, wherein the status information retained by the web server may be accessed only by the first user.
15. A communications system according to any of claims 1 to 14, wherein the status information retained by the web server may be accessed by the first user or the second user.

16. A method of communication performed by a web server hosting a website accessible via the Internet by first and second users, the method comprising receiving message data from the first user and retaining the message data in a database, receiving from the first user an email address of the second user and sending a notification email to the email address of the second user, wherein the notification email includes a hyperlink to the web server together with information relating to the location of the message data in the database, to allow the second user to access the message data by accessing the website via the hyperlink, the method further comprising retaining status information which relates to the message data.

17. A communications system substantially as hereinbefore described with reference to the accompanying figures.

18. A method of communication substantially as hereinbefore described with reference to the accompanying figures.
"Know When Your Message Has Been Read"

What is Proof of Read ("PoR")?

Proof of Read is an online messaging system, which allows the sender to have the ability to know when a message has arrived at its destination and the time and date it was opened.

Unlike e-mail once a "PoR" message has been sent, it cannot be amended by the sender or the recipient, thus providing a permanent time stamped record of all your correspondence.

"I didn't say that"

* Undeniable receipt
* Accountability
* 'Message waiting' notification by e-mail
* Message opened date and time stamp
* Realtime incoming mail notification
* Permanent storage of all correspondence which cannot be amended
* Password encrypt messages
Join Proof of Read (PoR)

Please enter your details below:

Password ____________________________ *(Up to 18 characters)
Name ________________________________ *(Up to 20 characters)
E-mail _______________________________ *

*Required fields for membership

Additional Information (Optional)

Address 1 ___________________________ Post/Zip Code ___________________________
Address 2 ___________________________ County/State ____________________________
Town ________________________________ Country ________________________________
Phone ________________________________

TIME ZONE: (For display purposes only. Times are stored in GMT. Display adjusted for Daylight Saving/Summer Time where used.)

Europe/London GMT+0.0 HRS

Please click the 'Join PoR' button once only

Join PoR Cancel

FIG. 3