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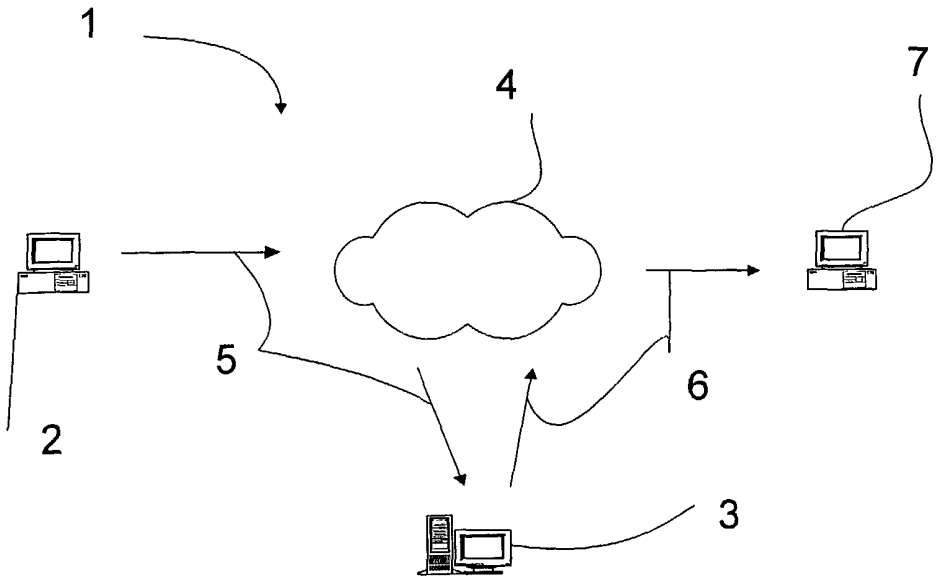
(54) Title: METHOD OF AND SYSTEM FOR TRACKABLE ELECTRONIC DELIVERY FOR INVOICES



(57) Abstract: The trackable electronic document method and/or system seeks to provide that a recipient is not required to separately log into a web-page to view a document, such as an invoice, nor does the trackable electronic document method and/or system require the recipient to open an attachment. The trackable electronic document method and/or system also seeks to allow documents, such as invoices, to be presented in substantially or exactly the same format as the printed document would appear. Furthermore, the trackable electronic document method and/or system can generate a display receipt when the document, such as an invoice, is displayed in the body of an e-mail received by a recipient. The display receipt is automatically returned to the server.

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Method Of And System For Trackable Electronic Delivery For Invoices

Technical Field

The present invention relates to a new method of and system for verifying that an electronic document has, or has not, been delivered to a recipient, and in particular, but not limited to, electronic documents which are invoices, bills, statements or the like, which are delivered as electronic mail (e-mail) documents, over a network such as the Internet.

Background Art

When a user sends an electronic document using simple mail transfer protocol (SMTP) to a recipient there is no guarantee that the electronic document has been read or opened by the recipient, but rather, merely that the recipient's electronic document server has received the electronic document. Such a distinction is crucially important for certain applications, for example, if it is required to be proved that a recipient has been made aware of a document.

When any electronic document, for example an e-mail, is delivered to a mail server this is an intermediary step, that is, the electronic document has not necessarily been forwarded to the intended recipient. Any one of a number of unanticipated events may result in the electronic document not reaching the intended recipient, for example: the mail server may delete the electronic document prior to it reaching the recipient; the electronic document may accidentally be added to the unwanted mail bin; the electronic document may be unintentionally filtered by filtering software; or may be erroneously redirected to someone else other than the intended recipient. All of these possibilities would result in the recipient not receiving the electronic document whilst the sender of the electronic document is unaware that the electronic document did not reach its intended destination.

This identifies a need to confirm that an electronic document has been received, that is opened, by the recipient, not just received by the recipient's mail server. More specifically, for example, this identifies a need to confirm that an electronic invoice, bill, account statement, or the like, has been opened or viewed by the recipient.

Limitations presently exist in respect of electronic invoicing and statements. Presently, EIP (Electronic Invoice Presentation) or EBP (Electronic Bill Presentation) can be classified as trackable or untrackable.

Trackable:

Currently, the only trackable systems known are those which produce and send an e-mail with a URL directing the recipient to the invoice which is located on a server on the world wide web. These systems do not present the invoice in the e-mail itself. This is similar to receiving a message from the post office saying to come down and pick up the parcel. It requires extra steps that impede uptake and useability.

Bills or invoices presented in this format may not comply with a presenter's specifications, i.e. it is possible that an online bill or invoice will not look identical to a printed one. This is because the invoices are constructed from data that is populated into a form. These systems are generally aimed at the upper end of the corporate market due to high infrastructure and set-up costs.

Untrackable:

Currently, the only untrackable systems known for electronic invoices are those which either e-mail an attachment or alternatively present the bill or invoice as text or HTML in an e-mail. Bills sent by this method are not trackable.

A shortfall of sending an invoice as an attachment is that often the attachment can carry viruses, and therefore recipients are reluctant to open attachments. Even attachments which appear to be text files have been known to be VBS scripts in disguise, for example the 'I love you virus'.

Also, there is the added complexity that the e-mail address headers are printed (i.e. "to", "from", "subject" fields of the e-mail are printed). This causes all pages to print out of alignment. Also, both HTML and text invoices are easily edited in a word editor, for example notepad.exe or wordpad.exe. This means that the recipient can easily change the invoice details, to say a lower price.

Another major shortfall of this system is that the sender never knows if the invoice was delivered, and more importantly if the invoice was opened. Text invoices cannot contain colours, lines, boxes, or logo's. Therefore, these invoices do not look anything like a printed invoice containing graphics.

This identifies a need for a new method of and/or system for verifying that an electronic document has, or has not, been delivered to a recipient which overcomes the problems inherent in the prior art. Furthermore, this identifies a need for a new method of and/or system for verifying that an electronic invoice or the like has, or has not, been delivered to a recipient which overcomes the problems in the prior art.

Still furthermore, this identifies a need for a new method of and/or system for verifying that an electronic invoice or the like has, or has not, been delivered to a recipient, and, whereby the invoice may be printed so as to have the same format as the electronically viewable invoice.

This also identifies a need for a new method of and/or system for presenting an invoice in an e-mail message or other electronic communication medium which overcomes the problems inherent in the prior art.

This also identifies a need for providing a computer readable medium of instructions, such as computer software, for practically operating or putting into effect the aforementioned method and/or system, either in part or in whole.

Definitions:

In a networked data communications system, users have access to terminals which are capable of requesting and receiving information from local or remote information sources. In such a system a terminal may be any type of computer or computerised device, a personal computer (PC), a mobile or cellular phone, a mobile data terminal, a portable computer, a personal digital assistant (PDA), a pager, a thin client, or any other similar type of electronic device. The capability of the terminal to request and/or receive information can be provided by an application program, hardware or other such entity. A terminal may be provided with associated devices, for example an information storage device such as a hard disk drive.

In such a system an information source may be a server or any other type of terminal (for example, a PC computer) coupled to an information storage device (for example, a hard disk drive). The exchange of information (i.e., the request and/or receipt of information) between the terminal and the information source, or other terminal(s), is facilitated by a connection referred to as a communication channel. The communication channel can be physically realised via a metallic cable (for example, a telephone line), semi-conducting cable, an electromagnetic signal (for example, a radio frequency (RF) signal), an optical fibre cable, a microwave link, a satellite link or any other such medium or combination thereof connected to a network infrastructure.

The infrastructure may be a telephone switch, a base station, a bridge, a router, or any other such specialised component, which facilitates the connection between the terminal and the network. Collectively, the interconnected group of terminals, physical connections, infrastructure and information sources is referred to as a computer network or data communications network.

The computer network itself may take a variety of forms. It may be located within a local geographic area, such as an office building, and consist of only a limited number of terminals and information sources. This type of computer network is commonly referred to as a Local Area Network (LAN). On a broader scale, it may be larger and support more users over a wider geographic area, such as across a city. This type of

network is commonly referred to as a Wide Area Network (WAN). On an even broader scale LAN and WAN networks may be interconnected across a country or globally. An example of a globally connected computer network is the Internet.

To a user the Internet appears to be a single unified computer network, although in reality it consists of many different types of computer platforms utilising many diverse data communications technologies. The technologies are connected together in such a manner so they appear transparent to the user. This transparency is made possible through the use of a standard communications protocol suite known as Transmission Control Protocol/Internet Protocol (TCP/IP).

The Hyper-text Mark-up Language (HTML) and Hyper-text Transfer Protocol (HTTP) and other extensions such as eXtensible Mark-up Language (XML) have developed to make the Internet or World Wide Web very accessible. The exchange of information on the Internet is further facilitated through hyper-text documents. Hyper-text documents are unique in that they use tags to define links which, when selected, fetch the related information from within the same document or from a new document altogether. The links are defined using HTML which provides a document formatting method which adapts in a consistent manner to any computer on which it is displayed. HTML tags are used to define the various components of an ASCII text file, image or sound which make up a hyper-text document, including such things as formatting and linking to other documents. HTML tags which link documents on one Internet information source to those on another do so by associating a Uniform Resource Locator (URL) with the referenced information. The ability to link Internet files of similar and/or differing formats to each other, and to link documents on other Internet sites, is a powerful feature of the Internet.

The Simple Mail Transfer Protocol (SMTP) is a TCP/IP protocol for sending e-mail between servers. Generally, all e-mail systems which send e-mail via the Internet use SMTP to send messages. Typically, e-mail is sent via SMTP to a Post Office Protocol (POP3) server, from where the recipient may retrieve the e-mail. Attachments to e-mail

sent via SMTP may be sent by making use of Multipurpose Internet Mail Extension (MIME) which is an SMTP extension.

Received by a recipient is taken to mean opened, viewed, read, accessed or the like by a recipient operating a terminal such as a PC. This is distinct to being received by a mail server.

Document is taken to mean any form of electronically transferable data or information in any format. Invoice is taken to mean a subset of the term document and includes bills, statements, accounts, debit notes, purchase orders, payment receipts, remittance advises or accounting documents in general.

Disclosure Of Invention

A trackable electronic document method and/or system, is sought to be provided to overcome the problems inherent in the prior art. The trackable electronic document method and/or system seeks to provide that an invoice is forwarded directly to a recipient within an e-mail.

A trackable electronic document is herein considered to be a combination, in electronic form, of an image format document (such as an invoice), recipient details, a unique tracking number and the means to register in the system that the image format document has been viewed by the recipient.

The trackable electronic document method and/or system seeks to provide that a recipient is not required to separately log into a web-page to view a document, such as an invoice, nor does the trackable electronic document method and/or system require the recipient to open an attachment. The trackable electronic document method and/or system also seeks to allow documents, such as invoices, to be presented in substantially or exactly the same format as the printed document would appear. Furthermore, the trackable electronic document method and/or system can generate a display receipt when

the document, such as an invoice, is displayed in the body of an e-mail received by a recipient. The display receipt is automatically returned to the server.

Accordingly, in a preferred, but non-limiting embodiment, the trackable electronic document method and/or system seeks to provide, inter alia, a means which:

is relatively simple to use; supports multiple pages; supports logos, boxes, lines, graphics etc.; supports both e-mail and fax delivery, i.e. "push" rather than "collect" or "pull" technology; supports e-mail delivery to HTML; confirms when invoices are read and faxes delivered (received by a recipient); alerts when invoices have not been read within a certain amount of time; does not require user intervention; provides that invoices should print as normal; provides WYSIWYG format (What You See Is What You Get) so E-mail or fax versions should look the same as a printed counterpart, i.e. logo's, boxes lines all in the same places; provides no attachments to open; and/or provides that the invoice cannot be easily edited by the recipient, i.e. invoice data in text or HTML is easily editable, whereas an image document, such as gif format, is not.

According to a first preferred embodiment of the present invention, there is provided a method of verifying to a sender that an electronic document has been received by a recipient at a recipient terminal, the method including the steps of:

the electronic document being produced in a standard format;

the standard format electronic document being converted to an image format electronic document with associated recipient details;

the image format electronic document being transmitted to a server from a sender terminal at the request of the sender, the image format electronic document having an associated unique tracking number;

a trackable electronic document being produced at the server, the trackable electronic document incorporating at least a link to the image format electronic document, the associated recipient details and the unique tracking number;

the trackable electronic document being sent to the recipient terminal from the server;

the recipient receiving the trackable electronic document at the recipient terminal, and upon the recipient opening the trackable electronic document the image format electronic document is displayed to the recipient; and

whereby, the image format electronic document can not be displayed to the recipient without information being made available to the sender that the image format electronic document has been displayed to the recipient.

Broadly, the electronic document may be an invoice, bill, statement, account, debit note, purchase order, payment receipt, remittance advise or other accounting document. Also broadly, the standard format electronic document may be an electronic document directly generated by a software application.

According to a particular aspect of one embodiment, the software application can generate the standard format electronic document and/or the image format electronic document. Furthermore, the associated recipient details can include the recipient's e-mail address. Also, the image format electronic document may be provided with a unique tracking number and/or a CRC number. Still furthermore, the trackable electronic document may provide a means to register in a database connected to the server that the image format electronic document has, or has not, been displayed to the recipient.

Optionally, the information that the image format electronic document has been displayed to the recipient is provided by updating a database, connected to the server, which is accessible by the sender, and/or, an e-mail automatically being sent to the sender terminal. The information that the image format electronic document has been displayed to the recipient can be used to automatically update a database maintained or used by the sender. In one form, the database is an accounts receivable database.

In another form of the present invention, the server transmits the image format electronic document to at least one database where the image format electronic document is then able to be viewed by either or both the recipient and the sender. The image

format electronic document or trackable electronic document can utilise encryption and/or digital signatures.

According to another aspect of one embodiment, selected data is appended to the trackable electronic document enabling the selected data to be used to automatically update a database used by the recipient when the trackable electronic document is received at the recipient terminal or opened by the recipient. The electronic document may be an invoice and the selected data is automatically imported into an accounting application used by the recipient.

According to still a further aspect of one embodiment, a time and date electronic stamp is produced when the trackable electronic document is received by the recipient's mail server. A time and date electronic stamp may also be produced when the image format electronic document is displayed to the recipient.

According to a second preferred embodiment of the present invention, there is provided a method of verifying to a sender that an electronic document has been received by a recipient at a recipient terminal, the method including the steps of:

the electronic document being produced in a standard format;

the standard format electronic document being converted to an image format electronic document with associated recipient details;

the image format electronic document being transmitted to a server from a sender terminal at the request of the sender, the image format electronic document having an associated unique tracking number;

a trackable electronic document being produced at the sender terminal, the trackable electronic document incorporating at least a link to the image format electronic document, the associated recipient details and the unique tracking number;

the trackable electronic document being sent to the recipient terminal from the sender terminal;

the recipient receiving the trackable electronic document at the recipient terminal, and upon the recipient opening the trackable electronic document the image format electronic document is displayed to the recipient; and

whereby, the image format electronic document can not be displayed to the recipient without information being made available to the sender that the image format electronic document has been displayed to the recipient.

According to a third preferred embodiment of the present invention, there is provided a system for verifying to a sender that an electronic document has been received by a recipient at a recipient terminal, the system including:

means to produce the electronic document in a standard format;

means to convert the standard format electronic document to an image format electronic document with associated recipient details;

means to transmit the image format electronic document to a server from a sender terminal at the request of the sender, the image format electronic document having an associated unique tracking number;

means to produce a trackable electronic document at the server or the sender terminal, the trackable electronic document incorporating at least a link to the image format electronic document, the associated recipient details and the unique tracking number;

means to send the trackable electronic document to the recipient terminal from the server or the sender terminal;

means for the recipient to receive the trackable electronic document at the recipient terminal, and upon the recipient opening the trackable electronic document, means to display the image format electronic document to the recipient; and

whereby, the image format electronic document can not be displayed to the recipient without information being made available to the sender that the image format electronic document has been displayed to the recipient.

According to a fourth preferred embodiment of the present invention, there is provided a system for verifying to a sender that an electronic invoice has been received by a recipient at a recipient terminal, the system including:

a software application to produce the electronic invoice in a standard format;

software to convert the standard format electronic invoice to an image format electronic invoice with associated recipient details;

network infrastructure to transmit the image format electronic invoice to a server from a sender terminal at the request of the sender, the image format electronic invoice having an associated unique tracking number;

software to produce a trackable electronic invoice at the server or the sender terminal, the trackable electronic invoice incorporating at least a link to the image format electronic invoice, the associated recipient details and the unique tracking number;

network infrastructure to transmit the trackable electronic invoice to the recipient terminal from the server or the sender terminal;

software for the recipient to receive the trackable electronic document at the recipient terminal, and upon the recipient opening the trackable electronic invoice, a recipient terminal display to display the image format electronic invoice to the recipient; and

whereby, the image format electronic invoice can not be displayed to the recipient without information being made available to the sender that the image format electronic invoice has been displayed to the recipient.

Preferably, the sender is able to access a web-site which displays the status of delivery of the electronic invoice.

According to a fifth preferred embodiment of the present invention, there is provided a combination of computer readable medium of instructions to facilitate verifying to a sender that an electronic document has been received by a recipient at a recipient terminal, the combination of instructions including components which:

produce the electronic document in a standard format;

convert the standard format electronic document to an image format electronic document with associated recipient details;

transmit the image format electronic document to a server from a sender terminal at the request of the sender, the image format electronic document having an associated unique tracking number;

produce a trackable electronic document at the server or the sender terminal, the trackable electronic document incorporating at least a link to the image format electronic document, the associated recipient details and the unique tracking number;

send the trackable electronic document to the recipient terminal from the server or the sender terminal; and

whereby, after the trackable electronic document is received at the recipient terminal, the recipient is able to open the trackable electronic document so as to display the image format electronic document to the recipient, but only if information can be made available to the sender that the image format electronic document has been displayed to the recipient.

According to a sixth preferred embodiment of the present invention, there is provided a computer readable medium of instructions to assist in verifying to a sender that an electronic document has been received by a recipient at a recipient terminal, the instructions residing on a sender terminal and including:

procedures for converting a standard format electronic document to a readable image format electronic document;

procedures for allocating a unique tracking number to the image format electronic document;

procedures for sending the image format electronic document from the sender terminal to a remote server; and

procedures for cleaning up the relevant directory(-ies) after processing the standard format electronic document.

Broadly, a HTML, XML, text or similar file which has searchable information can be attached to the image format electronic document to facilitate the automatic importation of data into an existing software application. In a further embodiment, the image format electronic document is produced by a standard software application, or, by a software print driver. The sender can also be provided with an option to preview the image format electronic document prior to sending the image format electronic document to the remote server.

According to still a further aspect of one embodiment, the computer readable medium of instructions is a software application that can be called by a standard accounting software application. The image format electronic document can be addressed to an e-mail address or a facsimile address. In a preferred embodiment, the image format electronic document is received by the recipient in WYSIWYG format. in a further preferred embodiment, the image format electronic document is able to be printed by the recipient so that the printed format appears the same as the image format electronic document sent by the sender.

Brief description Of Figures

The present invention will become better understood from the following detailed description of a preferred but non-limiting embodiment thereof, described in connection with the accompanying figures, wherein:

Figure 1 illustrates a preferred embodiment of the present invention wherein, the figure shows a schematic of the broad system;

Figure 2 illustrates a preferred embodiment of the present invention wherein, the figure shows a further schematic of the broad system;

Figure 3 illustrates an example screen of an invoice;

Figure 4 illustrates an example screen of data details;

Figure 5 illustrates an example screen of a received e-mail;

Figure 6 illustrates an example screen of a received invoice;

Figure 7 illustrates an example screen of a received multiple page invoice;

Figure 8 illustrates a further example screen of a received multiple page invoice;

Figure 9 illustrates an example screen of receipt confirmation details;

Figure 10 illustrates a preferred embodiment of the present invention wherein, the figure shows the broad system for creating a trackable electronic delivery invoice;

Figure 11 illustrates an example screen of a web-page showing invoice status;

Figure 12 illustrates the EBP system (prior art);

Figure 13 illustrates a preferred embodiment of the present invention wherein, the figure shows the broad system for the trackable electronic delivery system;

Figure 14 illustrates the system for untrackable electronic invoices (prior art).

Modes For Carrying Out The Invention

The present invention provides a new method of and/or system for verifying that, inter alia, an electronic invoice has, or has not, been delivered to, that is received by, a recipient. In the figures, incorporated to illustrate the features of the present invention, like reference numerals are used to identify like parts throughout the figures.

A preferred, but non-limiting, embodiment of the present invention is shown in figure 1. A system 1 for verifying that an electronic invoice, in a preferred embodiment an invoice contained within an e-mail, has been delivered to a recipient is illustrated in figure 1. A first computer 2, or other type of terminal, is placed in communication with a server 3 via a network 4 so that the electronic invoice may be transmitted 5 via the network 4 to the server 3.

In a specific, non-limiting, embodiment of the present invention the network 4 is the Internet. When the electronic invoice is received by the server 3 the electronic invoice may be allocated a reference number thus allowing the electronic invoice to be tracked and identified. The electronic invoice is then transmitted 6 to a second computer 7 via the network 4, or other network. It should be noted that the network which is utilised to communicate an electronic invoice to the second computer 7 need not necessarily be the same network as was used to transmit the original electronic invoice from the first computer 2 to the server 3. Although in a preferred embodiment the network 4 is used to transmit an electronic invoice, a distinct network may be utilised.

A recipient, being a user of or having access to the second computer 7, receives the electronic invoice and can elect to view the invoice. If the recipient views the electronic invoice then the original electronic invoice will be displayed to the recipient. However, as a requirement in the viewing process a receipt confirmation indicator must be able to be transmitted to the server 3 and/or the first computer 2 via the network 4, or other communication network, thereby confirming that the recipient has received and opened the electronic invoice. If the recipient does not view the electronic invoice then no

receipt confirmation indicator is transmitted and the sender of the electronic invoice is aware that the electronic invoice has not been opened, read or received by the recipient.

Shown in figure 2 is a preferred system for transmitting the receipt confirmation indicator. When an electronic invoice is viewed the receipt confirmation indicator is transmitted from the second computer 7 to either, or both, the server 3 and first computer 2 via the network 4. If the receipt confirmation indicator is transmitted from the second computer 7 to the server 3 via the pathway 8, then the server 3 may forward the receipt confirmation indicator to the first computer 2 via the pathway 9.

Alternatively, or additionally, the receipt confirmation indicator may be transmitted from the second computer 7 to the first computer 2 directly via the network 4. Using either of these methods the sender of the electronic invoice is made aware that the electronic invoice has been received by not just the second computer 7 or the second computer's associated mail server, but by the intended recipient, if for example x509 or digital certificates are used or other authenticating and encryption methods are used. The present invention allows users to access timely information on the status of sent electronic documents. As hereinbefore mentioned, confirmation of delivery/receipt of an electronic invoice can be provided by two status mechanisms: a message is forwarded back to the sender directly - the message is sent to the sender via computer 3; and/or the status is displayed at a network location which the sender may view, for example on a web-page on the Internet.

In a preferred embodiment of the present invention a time and date stamp is provided when the electronic invoice is received by the recipient's mail server and/or the electronic invoice is opened by the recipient. Furthermore, in a possible embodiment, the electronic invoice is submitted, transmitted and received using simple mail transfer protocol (SMTP) and/or hyper-text transfer protocol (HTTP). SMTP is beneficial in certain situations as electronic documents are delivered to a recipient rather than the recipient having to access the electronic invoice, i.e. it is a 'push' technology. Additionally, this allows the benefits of existing electronic mail software packages to be

utilised, for example filing, forwarding etc.. The present invention may, however, also utilise HTTP.

In a preferred embodiment of the present invention the server 3 can have a variety of functions or delegate functions to associated computer systems. In a non-limiting embodiment, given by way of example only, the server 3 accepts SMTP mail, similar in operation to NT Mail. However, there are pronounced distinctions. The server 3 selects a class into which a received electronic invoice should be categorised and places the electronic invoice in an SQL database.

Depending upon the type of electronic invoice, the electronic invoice may be converted into an appropriate format. The server 3 may control the entire SQL database including indexing, scripting and updating. Furthermore, the server 3 may use the UDP protocol, act as a COM server for ASP pages, utilise the certificate enrolment control system for digital certificates, and/or integrate with a Microsoft, dotnet or any other site server. In still a further preferred form of the present invention, the present method and system may be applied to digital certificates, digital signatures or any other form of electronic document.

It should be noted that when the words 'delivered to the recipient', 'received by the recipient' or associated words are used, this is taken to have an equivalent meaning 'displayed to the recipient', 'viewed by the recipient', 'opened by the recipient' or similar types of phrases. The term 'received by the recipient' should be taken to mean received by a user being the recipient.

A more specific most preferred embodiment of the present invention is now described. If a seamless trackable electronic delivery interface is not loaded on a users PC system or other terminal, the user may use a trackable electronic delivery print driver, this would generally be for accounting software vendors who do not use the interface provided for a preferred embodiment of the present invention.

A sender, that is the sender of an invoice, creates an invoice in their normal accounting package. If a trackable electronic delivery interface is not installed for the accounting package, then the sender can use a trackable electronic delivery print driver. The sender can thus preview the invoice before sending the invoice to the recipient. An example of such a preview is illustrated in figure 3.

For accounting software vendors who do use a trackable electronic delivery seamless interface, the following occurs: the sender creates an invoice in their normal accounting package; if a trackable electronic delivery interface is installed for the accounting package, then the process the sender may use is as follows: an invoice is created as normal, but instead of having a normal street delivery address it has a fax or e-mail address instead. This scenario is illustrated in figure 4. The accounting package creates a standard invoice in electronic form. The trackable electronic delivery software may be called by the accounting package or alternatively routinely scan these directories, for new documents. The trackable electronic delivery software converts the documents from their original standard form to an image format electronic document (if necessary), then adds the recipient details. It then sends the image format to the server 3 instead of straight to the recipient 7.

In a further most preferred embodiment, the trackable electronic delivery software performs the following:

Conversion to a readable image document;

A Hash, CRC (Cyclic Redundancy Check) or similar function on the invoice may be used, to ensure same message is not sent multiple times to the server 3. This Hash or CRC can also be used as a unique identifying number for tracking and reconciliation purposes;

Acts as a SMTP server, sending the e-mail message in a seamless process from the sender to the trackable electronic delivery server 3 regardless of the e-mail client software used, that is it does not need an e-mail client loaded to do this;

Tidies up the directory deleting any files left behind after processing, i.e. wmf files, etc.;

Can add a HTML, XML, text or a similar file that has searchable text information on the invoice details (this may be used to provide invoices with an attachment or other means for allowing the importation of invoice details into existing accounting software, without the requirement to manually enter invoice details into the existing accounting software).

The invoice is sent via the trackable electronic delivery server 3, where a copy of the invoice is posted to a secure web-page. The document, that is the invoice, is then sent as a trackable electronic delivery e-mail or is electronically faxed to the recipient. When the invoice has been successfully read or faxed, a time and date receipt is sent back to the sender. This scenario is illustrated in the figures. In certain figures example screen dumps of a specific embodiment of a component of the present invention are shown. It should be recognised that the format of the interface or screens presented to users can be significantly varied. The figures are provided for illustrative purposes to provide the reader with a better understanding of the present invention and should not be taken as limiting.

Shown in figure 5, a recipient receives an e-mail. As illustrated in figure 6, the e-mail is an invoice which can then be subsequently displayed to the recipient and a read receipt is obtained. If the invoice contains multiple pages, buttons can be displayed on the invoice to navigate between the pages as is shown in figures 7 and 8. Other means of moving between pages may be provided. The page presented to the recipient may contain information on the total number of pages, and what page is currently being viewed. Also, a print button or link may be loaded ensuring that the invoice can be printed without the header information of the e-mail, that is without 'to' and 'from' fields etc. The invoice therefore prints in WYSIWYG format, and all or selected pages can be printed.

After the invoice is displayed to the recipient a confirmation is sent to the sender. In a specific, but non-limiting embodiment, this confirmation is sent as an e-mail in the format illustrated in figure 9. Numerous other forms of confirmation may be envisaged, for example direct connection and entry of data into a database, fax confirmation, etc.

The confirmation also updates a central database, for example SQL or Oracle, with confirmation details. This confirmation may or may not be used to update the sender's aged debtors lists showing when the recipient read the invoice. The sender receives time and date confirmations and may reconcile the aged debt to include these details.

The significant obstacles which the present invention thus seeks to overcome include, inter alia:

1) the conversion of a standard invoice format document to an image format electronic document;

2) the inclusion of multiple pages of invoices;

3) the ability to both e-mail and fax the invoices through an unified platform that tracks both - ability to send same invoice to any combination of fax and e-mail;

5) to merge an image file into a HTML e-mail, and the ability to display a hyperlink for text only mail users in the same message;

6) to confirm when invoices are read, that is traps IP address of the recipient reading the e-mail or fax invoice;

7) to alert a sender when invoices have not been read within a certain time;

8) the ability to print from the e-mail invoice using a button or hyperlink - this prints the invoice in WYSIWYG format without any header information - may also print more than one page and print hidden pages. There is no additional software that the recipient is required to load;

10) the provision of a status indicator showing when an invoice is loaded;

11) the ability for the sender to logon to a web-page and track the status of an invoice and resend invoices if required; and/or

13) the ability for the recipient to have invoices stored on a trackable electronic delivery server.

14) the ability to only display an invoice if a read receipt indicator is transmitted to the server.

A preferred embodiment of the present invention is now described in further detail. An invoice may be created as normal in an organisation's accounting package. The sender,

that is the organisation issuing the invoice, has a default setting in the address field as to the destination of the invoice, i.e. printed, fax, e-mail or any combination of these:

A printed invoice contains the normal postal address;

A fax invoice has a syntax similar to FAX 61433333333;

An e-mail address has a syntax of similar to recipient@destination.com.

The invoice is processed as normal. The delivery address is passed to a directory in an XML, HTML or text file. This file contains the delivery address and also the text data contained in the invoice pertaining to the invoice number, date, address, etc.

The actual invoice is created by the accounting package. The trackable electronic delivery software then transforms the standard format to an image format electronic document.

The trackable electronic delivery conversion module passes all files and information to the trackable electronic delivery SMTP. The trackable electronic delivery SMTP creates an SMTP e-mail to the addresses in the XML, HTML, or text file. It will automatically call dialup networking to establish an Internet connection. The converted image file and the associated text/XML/HTML file are sent to the central server.

In another embodiment, if the recipient's terminal is behind a firewall the trackable electronic delivery SMTP can prompt the sender for a local mail server name and/or address thus allowing documents to pass through the firewall. A ping signal may be sent to test if the recipient's terminal is behind a firewall, also the recipient may only be required to enter the local mail server name and/or address once. The trackable electronic delivery SMTP can also call an existing e-mail client such as Outlook.

Before the files are sent, the trackable electronic delivery software may perform a function, to give a unique tracking number for the message. This ensures that the same message is not sent more than once to the trackable electronic delivery server, as the server logs the tracking number and disregards any message received with the same tracking number. Files are sent via the trackable electronic delivery SMTP package or

an existing e-mail client to the central trackable electronic delivery server, however, numerous distributed servers may of course be utilised.

The trackable electronic delivery server receives the e-mail, and ensures the unique tracking number has not been duplicated. If the tracking number checking shows a duplicate then the file is deleted. The trackable electronic delivery server may use this tracking number or may allocate a new reference tracking number for the message. The trackable electronic delivery server posts the images and data to a database like SQL, and creates a HTML e-mail with a link to the image file. The server effects the sending of this to the recipient, along with an XML file if needed.

The recipient receives the e-mail. Automatically the jpeg or gif is downloaded into the actual e-mail when the e-mail is opened. The trackable electronic delivery server logs the IP address and time that the invoice was displayed. If the e-mail contains multiple pages, buttons can be provided to appear on pages. The status of invoice delivery is updated on an SQL and web server. The sender can log into a web-page to check the status of all invoice deliveries. Also a confirmation e-mail is sent to sender showing certain details, for example as illustrated in figure 9. These details may include: date and time read; IP address of displaying computer; time the invoice was originally submitted; reference number; whether successful or cancelled, or not read for more than a predetermined time.

The sender can be provided with means to log into a web-page and check the status of all invoices - success, pending etc. The sender may click on a hyperlink so as to be able to locate and display the invoice. An example of such a web-page is illustrated in figure 11. A recipient can also join the service to have all invoices sent through the service stored in a database for records. The trackable electronic delivery system delivers the invoice in the e-mail - a one step process, not requiring receiver intervention. Existing EBP systems require a user to click on a hyperlink, and log into a web-page. A multiple step process for the recipient. Other systems deliver the e-mail as an attachment. Many users will not open attachments due to virus risks. Other systems deliver the invoice as

HTML or text in the body of the e-mail – these can be altered by the recipient. None of these systems can track when the invoice was viewed.

The image of the invoice is stored on a central server, where it can be viewed by the sender, complete with the status of the invoice, i.e. read, unread, undelivered or such. The invoice is 'push' delivered to the recipient in the body of an e-mail for immediate viewing. The image of the invoice is downloaded into the body of the e-mail when opened, allowing the trackable electronic delivery system to track the date and time the invoice is opened, and the IP address of the recipient.

The invoice can be printed from the e-mail, and no header information will be printed. Other e-mail invoice systems have the downfall of not printing WYSIWYG format and these other systems also print the 'to', 'from' and 'subject' fields of the e-mail. This causes major alignment problems when printing. The invoice may be saved by clicking a 'save' button. This will electronically file the invoice in the directory of the recipient's choice. The invoice can be e-mailed to other authorising people if required. The invoice e-mail may arrive with a digital signature – this is optional. It may also use x509 certificates for encryption.

The trackable electronic delivery system does not require the recipient to do anything more than read their e-mail to receive the invoice. The trackable electronic delivery system allows mass take-up of electronic invoicing. This is because the trackable electronic delivery system is the only system that enables a business of any size to utilise the service.

The web based EBP method presently known is now discussed in further detail so as to provide the reader with a greater understanding of the advances the present invention has made. The EBP method is illustrated in figure 12 and includes the steps of:

Corporate billing data is sent as data 100 not a WYSIWYG invoice. This is a significant difference as when the invoice is sent as data, and not an image file, then the actual invoice that is transmitted to the recipient needs to be built by the EBP server 110;

If a user wants to add a message to a single client on an adhoc basis (for example, "thanks Fred for you business, the other widgets will be available on Friday"), the user is limited in this capacity with this system. This system is built for standardized invoices having data populated into standard fields;

The EBP server 110 receives the data 100 and populates the form fields. This may be done on the "fly" (when the recipient logs into to view the invoice), or performed at a particular time before this, and stored on the server waiting for the recipient to access the invoice;

The information is posted to a web server 120, allowing recipients 130 to access the invoice from their web browser. This is also a fundamental difference;

An e-mail notification 140 that the invoice is ready for viewing is sent to the recipient 130; and

The recipient 130 must then click on the URL, which opens the recipient's browser and directs the browser 150 to the web-page. The recipient then needs to log into a web page, and then select the invoice for viewing. This is a more complex process for the recipient than receiving the invoice in the body of the e-mail.

The trackable electronic delivery method is further illustrated in figure 13. In a preferred embodiment of the present invention the method includes the steps of:

The trackable electronic delivery software 200 creates an image format electronic document, and extracts the e-mail address from an accompanying instruction file. This instruction file may be but is not limited to a text, HTML or XML file;

The trackable electronic delivery software 200 adds the XML, text or HTML file to the image documents, and creates a unique tracking number for the message. The files are then sent 210 via the trackable electronic delivery SMTP module to the trackable electronic delivery central server 220;

The server 220 checks that the tracking number has not been duplicated. If a duplicate instance is found the message is rejected. The server 220 may use this unique tracking number or alternatively allocates a new tracking number to the invoices for tracking purposes;

The server 220 transmits 230 the invoices to a database 240 and/or web server 240 (which may be separate entities). A HTML e-mail is created and sent to the recipient; and

The recipient opens the e-mail and the invoices are automatically downloaded into the e-mail. The sender can track, via automatically generated return information 250, that the invoices were displayed as each invoice has a tracking number. The sender can also trap the IP address of the recipient displaying the invoices.

In a further known method untrackable invoices are sent directly to the recipient. With reference to figure 14, this method includes the steps that:

The sender creates an invoice in a local accounting system package, the invoice is then inserted into an e-mail 300 either as an attachment, text in the e-mail body, or HTML;

The invoice e-mail is sent 310 directly to the recipient 320;

The recipient 320 receives the e-mail 300, and either has to open an attachment, or alternatively requires a HTML e-mail client. It is possible that the text file may be included in the body of the e-mail, however, this would be lacking formatting of logo's, colours, graphics etc.; and

No read receipt is generated. It is possible to use SMTP protocol to request one, but this can be suppressed by the recipient 320 if desired.

It should be noted that the computer network as referenced in this specification should be taken to include all forms of connected or communicating computers or terminals having at least two terminals connected or communicating as hereinbefore described. That is, the term computer network should be taken to include any type of terminal as hereinbefore defined, computer, computerised device, peripheral computer equipment, computerised accessory, mobile or cellular phone, digital electronic device or other similar type of computerised electronic device or part thereof which is rendered such that it is capable of communicating with at least one of any of the aforementioned entities. Said communication of information or data can occur over any data communications network, computer network, wireless network, internetwork, intranetwork, local area network (LAN), wide area network (WAN), the Internet and

developments thereof, transient or temporary network, combinations of the above or any other type of network providing for computerised, electronic or digital devices.

Furthermore, references to the terms connecting, communicating, transmitting, requesting, receiving, exchanging and the like, and permutations thereof, as applied to the term computer network and/or components thereof should be taken to pertain to the transfer of information or data. Such transfers of information or data can be facilitated for by any form of entity/entities for facilitating such, including, but not limited to, metallic wires or cables, semi-conducting wires or cables, optical fibres and optical devices, wireless means, electromagnetic waves and the like and modulations thereof, acoustic waves and the like and modulations thereof, control of electric and/or magnetic fields, and/or the transportation of all forms of memory devices.

Thus, there has been provided in accordance with the present invention, a new method of, computer readable medium of instructions and/or system for verifying that an electronic invoice has, or has not, been delivered to a recipient which satisfies the advantages set forth above.

The invention may also be said broadly to consist in the parts, elements and features referred to or indicated in the specification of the application, individually or collectively, in any or all combinations of two or more of said parts, elements or features, and where specific integers are mentioned herein which have known equivalents in the art to which the invention relates, such known equivalents are deemed to be incorporated herein as if individually set forth.

Although the preferred embodiment has been described in detail, it should be understood that various changes, substitutions, and alterations can be made herein by one of ordinary skill in the art without departing from the spirit or scope of the present invention.

The claims:

1. A method of verifying to a sender that an electronic document has been received by a recipient at a recipient terminal, the method including the steps of:

the electronic document being produced in a standard format;

the standard format electronic document being converted to an image format electronic document with associated recipient details;

the image format electronic document being transmitted to a server from a sender terminal at the request of the sender, the image format electronic document having an associated unique tracking number;

a trackable electronic document being produced at the server, the trackable electronic document incorporating at least a link to the image format electronic document, the associated recipient details and the unique tracking number;

the trackable electronic document being sent to the recipient terminal from the server;

the recipient receiving the trackable electronic document at the recipient terminal, and upon the recipient opening the trackable electronic document the image format electronic document is displayed to the recipient; and

whereby, the image format electronic document can not be displayed to the recipient without information being made available to the server and subsequently to the sender that the image format electronic document has been displayed to the recipient.

2. The method as claimed in claim 1, wherein the electronic document is an invoice, bill, statement, account, debit note, purchase order, payment receipt, remittance advise or other accounting document.

3. The method as claimed in either claim 1 or claim 2, wherein the standard format electronic document is an electronic document directly generated by a software application.

4. The method as claimed in claim 3, wherein the software application can generate the standard format electronic document and/or the image format electronic document.

5. The method as claimed in any one of the claims 1 to 4, wherein the associated recipient details include the recipient's e-mail address.

6. The method as claimed in any one of the claims 1 to 5, wherein the image format electronic document has a unique tracking number and/or a CRC number.

7. The method as claimed in any one of the claims 1 to 6, wherein the trackable electronic document provides a means to register in a database connected to the server that the image format electronic document has, or has not, been displayed to the recipient.

8. The method as claimed in any one of the claims 1 to 7, wherein the information that the image format electronic document has been displayed to the recipient is provided by updating a database, connected to the server, which is accessible by the sender, and/or, an e-mail automatically being sent to the sender terminal.

9. The method as claimed in any one of the claims 1 to 8, wherein the information that the image format electronic document has been displayed to the recipient is used to automatically update a database maintained or used by the sender.

10. The method as claimed in claim 9, wherein the database is an accounts receivable database.

11. The method as claimed in any one of the claims 1 to 10, wherein the server transmits the image format electronic document to at least one database where the image format electronic document is then able to be viewed by either or both the recipient and the sender.

12. The method as claimed in any one of the claims 1 to 11, wherein the image format electronic document or trackable electronic document utilise encryption and/or digital signatures.

13. The method as claimed in any one of the claims 1 to 12, wherein selected data is appended to the trackable electronic document enabling the selected data to be used to automatically update a database used by the recipient when the trackable electronic document is received at the recipient terminal or opened by the recipient.

14. The method as claimed in claim 13, wherein the electronic document is an invoice and the selected data is automatically imported into an accounting application used by the recipient.

15. The method as claimed in any one of the claims 1 to 14, wherein a time and date electronic stamp is produced when the trackable electronic document is received by the recipient's mail server.

16. The method as claimed in any one of the claims 1 to 15, wherein a time and date electronic stamp is produced when the image format electronic document is displayed to the recipient.

17. A method of verifying to a sender that an electronic document has been received by a recipient at a recipient terminal, the method including the steps of:

the electronic document being produced in a standard format;

the standard format electronic document being converted to an image format electronic document with associated recipient details;

the image format electronic document being transmitted to a server from a sender terminal at the request of the sender, the image format electronic document having an associated unique tracking number;

a trackable electronic document being produced at the sender terminal, the trackable electronic document incorporating at least a link to the image format electronic document, the associated recipient details and the unique tracking number;

the trackable electronic document being sent to the recipient terminal from the sender terminal;

the recipient receiving the trackable electronic document at the recipient terminal, and upon the recipient opening the trackable electronic document the image format electronic document is displayed to the recipient; and

whereby, the image format electronic document can not be displayed to the recipient without information being made available to the sender that the image format electronic document has been displayed to the recipient.

18. A system for verifying to a sender that an electronic document has been received by a recipient at a recipient terminal, the system including:

means to produce the electronic document in a standard format;

means to convert the standard format electronic document to an image format electronic document with associated recipient details;

means to transmit the image format electronic document to a server from a sender terminal at the request of the sender, the image format electronic document having an associated unique tracking number;

means to produce a trackable electronic document at the server or the sender terminal, the trackable electronic document incorporating at least a link to the image format electronic document, the associated recipient details and the unique tracking number;

means to send the trackable electronic document to the recipient terminal from the server or the sender terminal;

means for the recipient to receive the trackable electronic document at the recipient terminal, and upon the recipient opening the trackable electronic document, means to display the image format electronic document to the recipient; and

whereby, the image format electronic document can not be displayed to the recipient without information being made available to the sender that the image format electronic document has been displayed to the recipient.

19. A system for verifying to a sender that an electronic invoice has been received by a recipient at a recipient terminal, the system including:

a software application to produce the electronic invoice in a standard format;

software to convert the standard format electronic invoice to an image format electronic invoice with associated recipient details;

network infrastructure to transmit the image format electronic invoice to a server from a sender terminal at the request of the sender, the image format electronic invoice having an associated unique tracking number;

software to produce a trackable electronic invoice at the server or the sender terminal, the trackable electronic invoice incorporating at least a link to the image format electronic invoice, the associated recipient details and the unique tracking number;

network infrastructure to transmit the trackable electronic invoice to the recipient terminal from the server or the sender terminal;

software for the recipient to receive the trackable electronic document at the recipient terminal, and upon the recipient opening the trackable electronic invoice, a recipient terminal display to display the image format electronic invoice to the recipient; and

whereby, the image format electronic invoice can not be displayed to the recipient without information being made available to the sender that the image format electronic invoice has been displayed to the recipient.

20. The system as claimed in claim 19, wherein the sender is able to access a web-site which displays the status of delivery of the electronic invoice.

21. A combination of computer readable medium of instructions to facilitate verifying to a sender that an electronic document has been received by a recipient at a recipient terminal, the combination of instructions including components which:

produce the electronic document in a standard format;

convert the standard format electronic document to an image format electronic document with associated recipient details;

transmit the image format electronic document to a server from a sender terminal at the request of the sender, the image format electronic document having an associated unique tracking number;

produce a trackable electronic document at the server or the sender terminal, the trackable electronic document incorporating at least a link to the image format electronic document, the associated recipient details and the unique tracking number;

send the trackable electronic document to the recipient terminal from the server or the sender terminal; and

whereby, after the trackable electronic document is received at the recipient terminal, the recipient is able to open the trackable electronic document so as to display the image format electronic document to the recipient, but only if information can be made available to the sender that the image format electronic document has been displayed to the recipient.

22. A computer readable medium of instructions to assist in verifying to a sender that an electronic document has been received by a recipient at a recipient terminal, the instructions residing on a sender terminal and including:

procedures for converting a standard format electronic document to a readable image format electronic document;

procedures for creating a unique reference number for the standard format electronic document;

procedures for allocating a unique tracking number to the image format electronic document;

procedures for sending the image format electronic document from the sender terminal to a remote server; and

procedures for cleaning up the relevant directory(-ies) after processing the standard format electronic document.

23. The computer readable medium of instructions as claimed in claim 22, wherein a HTML, XML, text or similar instruction file which has searchable information is attached to the image format electronic document to facilitate the automatic importation of data into an existing software application.

24. The computer readable medium of instructions as claimed in either claim 22 or claim 23, wherein the image format electronic document is produced by a standard software application, or, by a software print driver.

25. The computer readable medium of instructions as claimed in any one of the claims 22 to 24, wherein the sender is provided with an option to preview the image format electronic document prior to sending the image format electronic document to the remote server.

26. The computer readable medium of instructions as claimed in any one of the claims 22 to 25, wherein the electronic document is an electronic invoice or the like.

27. The computer readable medium of instructions as claimed in any one of the claims 22 to 26, wherein the computer readable medium of instructions is a software application that can be called by a standard accounting software application.

28. The computer readable medium of instructions as claimed in any one of the claims 22 to 27, wherein the image format electronic document can be addressed to an e-mail address or a facsimile address.

29. The computer readable medium of instructions as claimed in any one of the claims 22 to 28, wherein the image format electronic document is received by the recipient in WYSIWYG format.

30. The computer readable medium of instructions as claimed in any one of the claims 22 to 29, wherein the image format electronic document is able to be printed by the recipient so that the printed format appears the same as the image format electronic document sent by the sender.

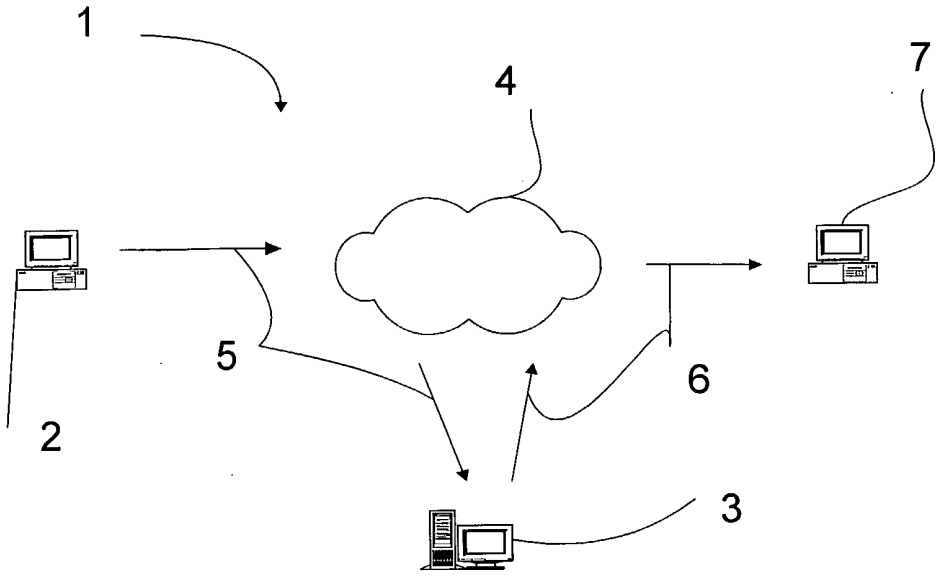


Figure 1

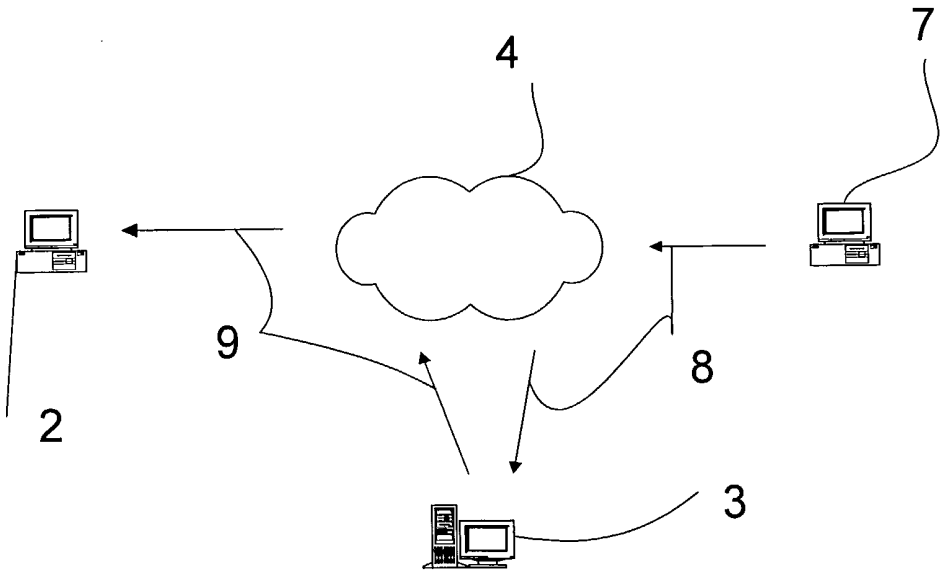
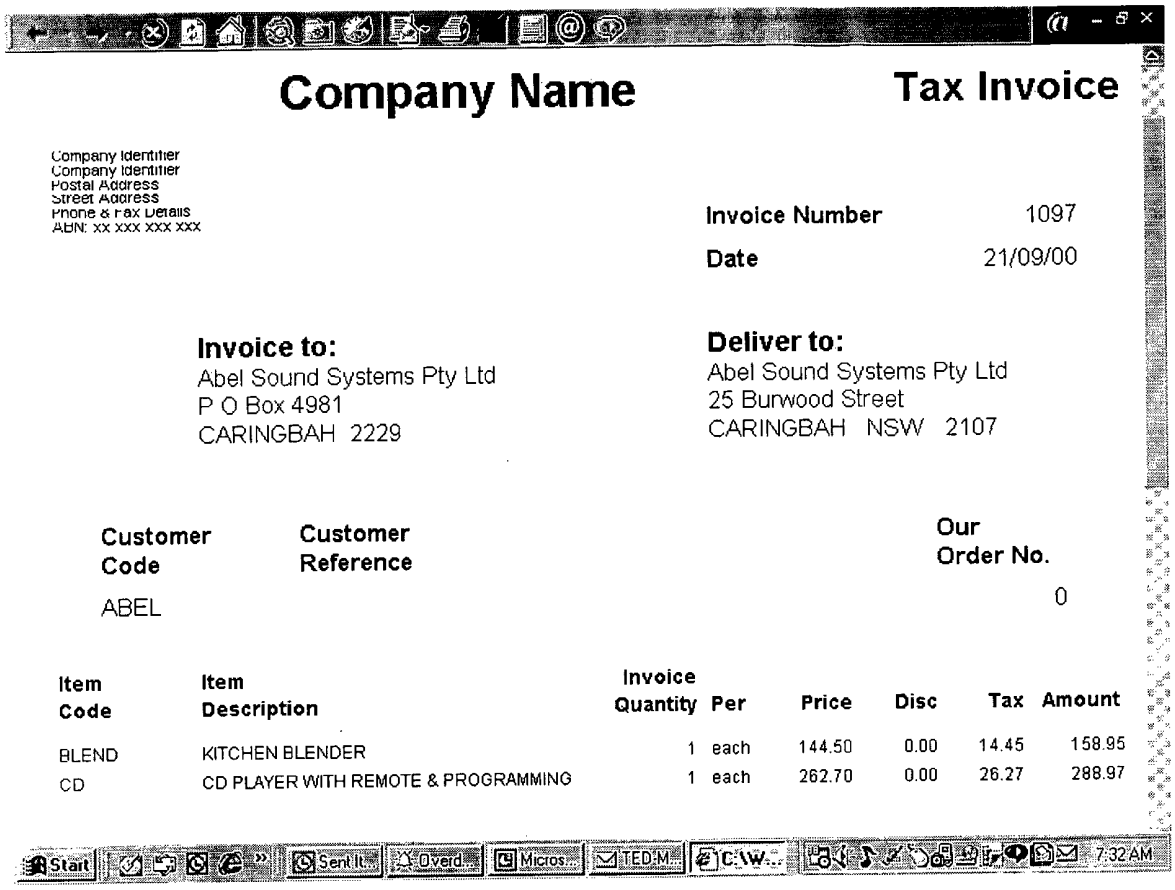


Figure 2

Figure 3



Company Name

Tax Invoice

Company Identifier
Company Identifier
Postal Address
Street Address
Phone & Fax Details
ABN: xx xxx xxx xxx

Invoice Number 1097

Date 21/09/00

Invoice to:
Abel Sound Systems Pty Ltd
P O Box 4981
CARINGBAH 2229

Deliver to:
Abel Sound Systems Pty Ltd
25 Burwood Street
CARINGBAH NSW 2107

Customer Code	Customer Reference	Our Order No.
ABEL		0

Item Code	Item Description	Invoice Quantity	Per	Price	Disc	Tax	Amount
BLEND	KITCHEN BLENDER	1	each	144.50	0.00	14.45	158.95
CD	CD PLAYER WITH REMOTE & PROGRAMMING	1	each	262.70	0.00	26.27	288.97

Figure 4

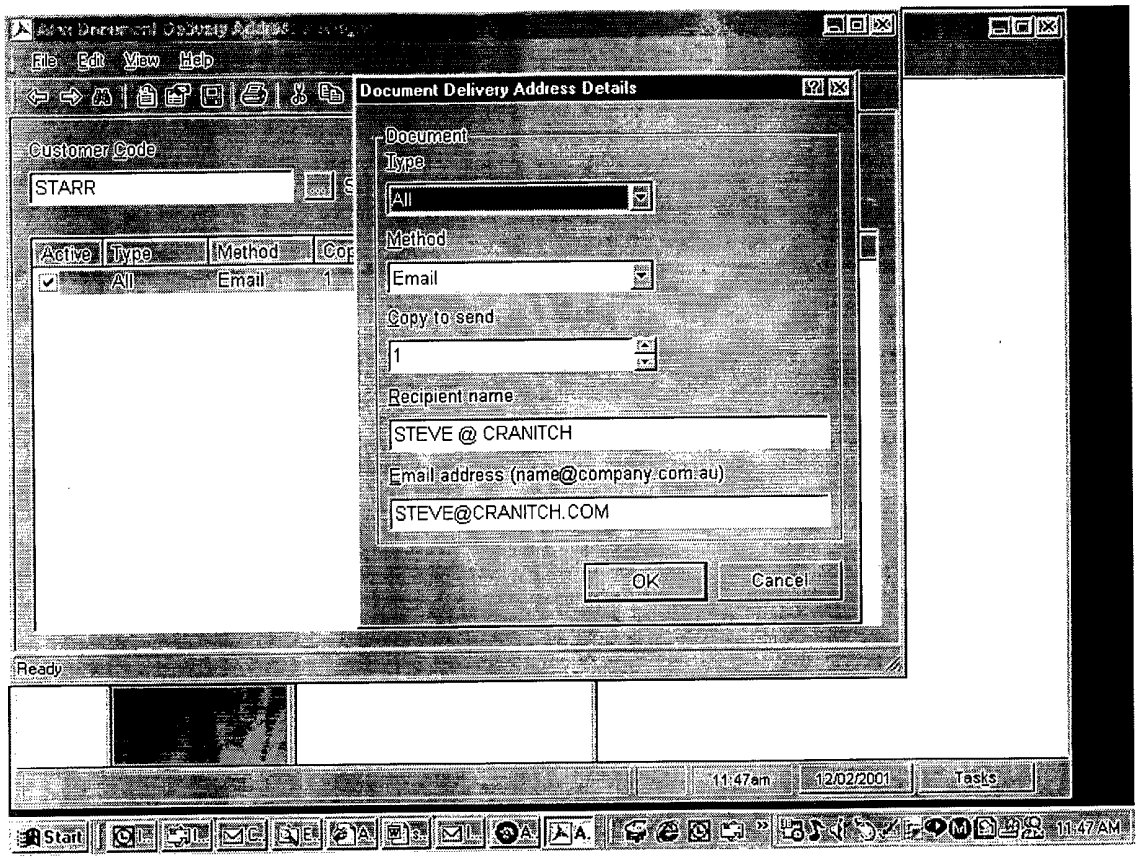

File Edit View Help
Document Delivery Address Details
Customer Code
STARR
Active Type Method
All Email
Document Type
All
Method
Email
Copy to send
1
Recipient name
STEVE @ CRANITCH
Email address (name@company.com.au)
STEVE@CRANITCH.COM
OK
Cancel
Ready
11:47am
12/02/2001
Tasks
Start
11:47AM

Figure 5

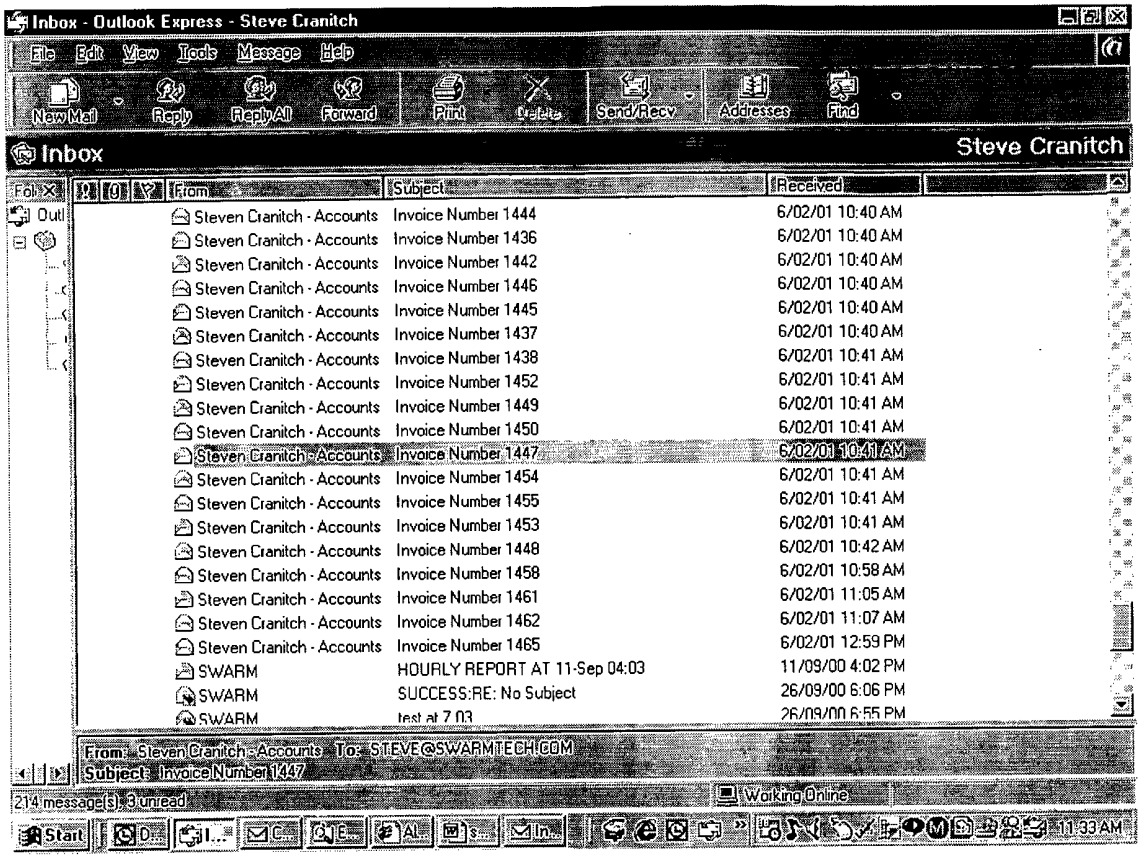

Inbox - Outlook Express - Steve Cranitch
File Edit View Tools Message Help
New Mail Reply Reply All Forward Print Delete Send/Recv Addresses Find
Inbox
Steve Cranitch
From Subject Received
Steven Cranitch - Accounts Invoice Number 1444 6/02/01 10:40 AM
Steven Cranitch - Accounts Invoice Number 1436 6/02/01 10:40 AM
Steven Cranitch - Accounts Invoice Number 1442 6/02/01 10:40 AM
Steven Cranitch - Accounts Invoice Number 1446 6/02/01 10:40 AM
Steven Cranitch - Accounts Invoice Number 1445 6/02/01 10:40 AM
Steven Cranitch - Accounts Invoice Number 1437 6/02/01 10:40 AM
Steven Cranitch - Accounts Invoice Number 1438 6/02/01 10:41 AM
Steven Cranitch - Accounts Invoice Number 1452 6/02/01 10:41 AM
Steven Cranitch - Accounts Invoice Number 1449 6/02/01 10:41 AM
Steven Cranitch - Accounts Invoice Number 1450 6/02/01 10:41 AM
Steven Cranitch - Accounts Invoice Number 1447 6/02/01 10:41 AM
Steven Cranitch - Accounts Invoice Number 1454 6/02/01 10:41 AM
Steven Cranitch - Accounts Invoice Number 1455 6/02/01 10:41 AM
Steven Cranitch - Accounts Invoice Number 1453 6/02/01 10:41 AM
Steven Cranitch - Accounts Invoice Number 1448 6/02/01 10:42 AM
Steven Cranitch - Accounts Invoice Number 1458 6/02/01 10:58 AM
Steven Cranitch - Accounts Invoice Number 1461 6/02/01 11:05 AM
Steven Cranitch - Accounts Invoice Number 1462 6/02/01 11:07 AM
Steven Cranitch - Accounts Invoice Number 1465 6/02/01 12:59 PM
SWARM HOURLY REPORT AT 11-Sep 04:03 11/09/00 4:02 PM
SWARM SUCCESS:RE: No Subject 26/09/00 6:06 PM
SWARM test at 7.03 26/09/00 6:55 PM
From: Steven Cranitch - Accounts To: STEVE@SWARMTECH.COM
Subject: Invoice Number 1447
214 message(s), 3 unread
Working Online
Start
11:33 AM

Figure 6

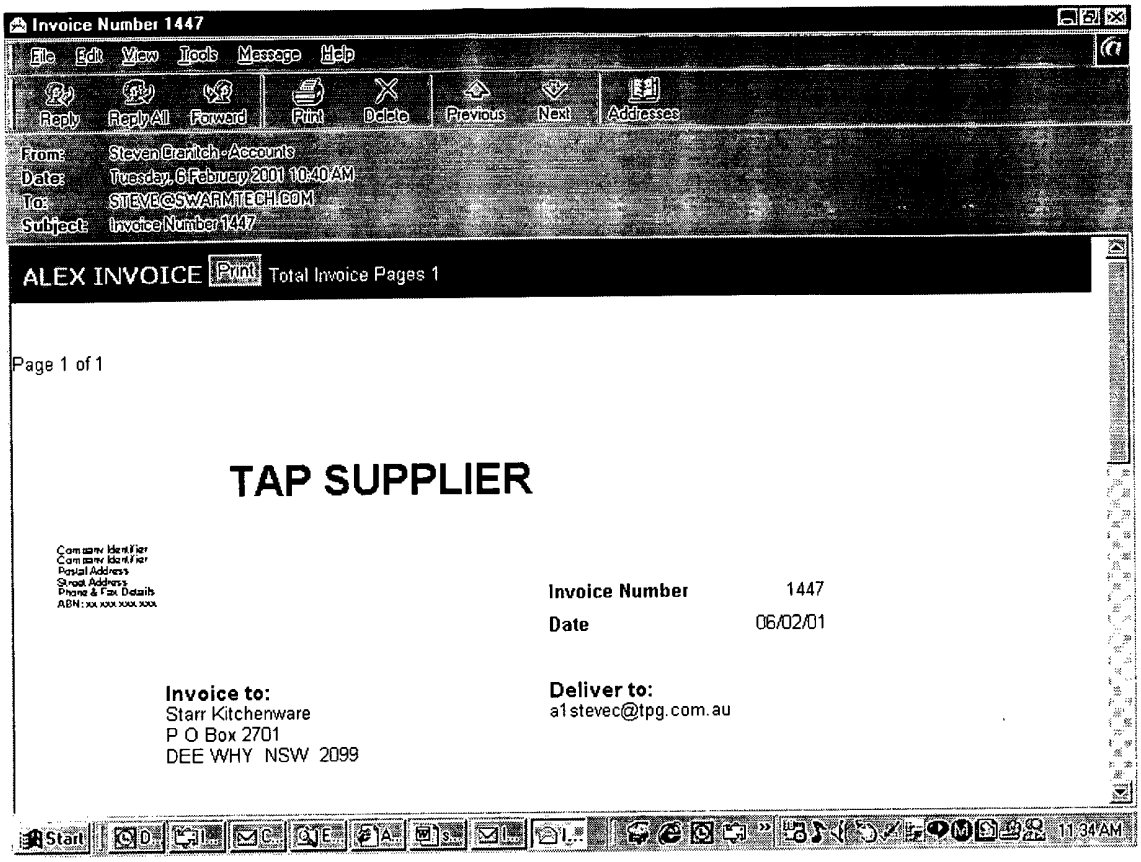

Invoice Number 1447
File Edit View Tools Message Help
Reply Reply All Forward Print Delete Previous Next Addresses
From: Steven Granitch - Accounts
Date: Tuesday, 6 February 2001 10:40 AM
To: STEVE@SWARMTECH.COM
Subject: Invoice Number 1447
ALEX INVOICE Print Total Invoice Pages 1
Page 1 of 1
TAP SUPPLIER
Company Identifier
Company Identifier
Postal Address
Street Address
Phone & Fax Details
ABN: xx xxx xxx xxx
Invoice Number 1447
Date 06/02/01
Invoice to:
Starr Kitchenware
P O Box 2701
DEE WHY NSW 2099
Deliver to:
a1stevec@tpg.com.au
Start
11:34 AM

Figure 7

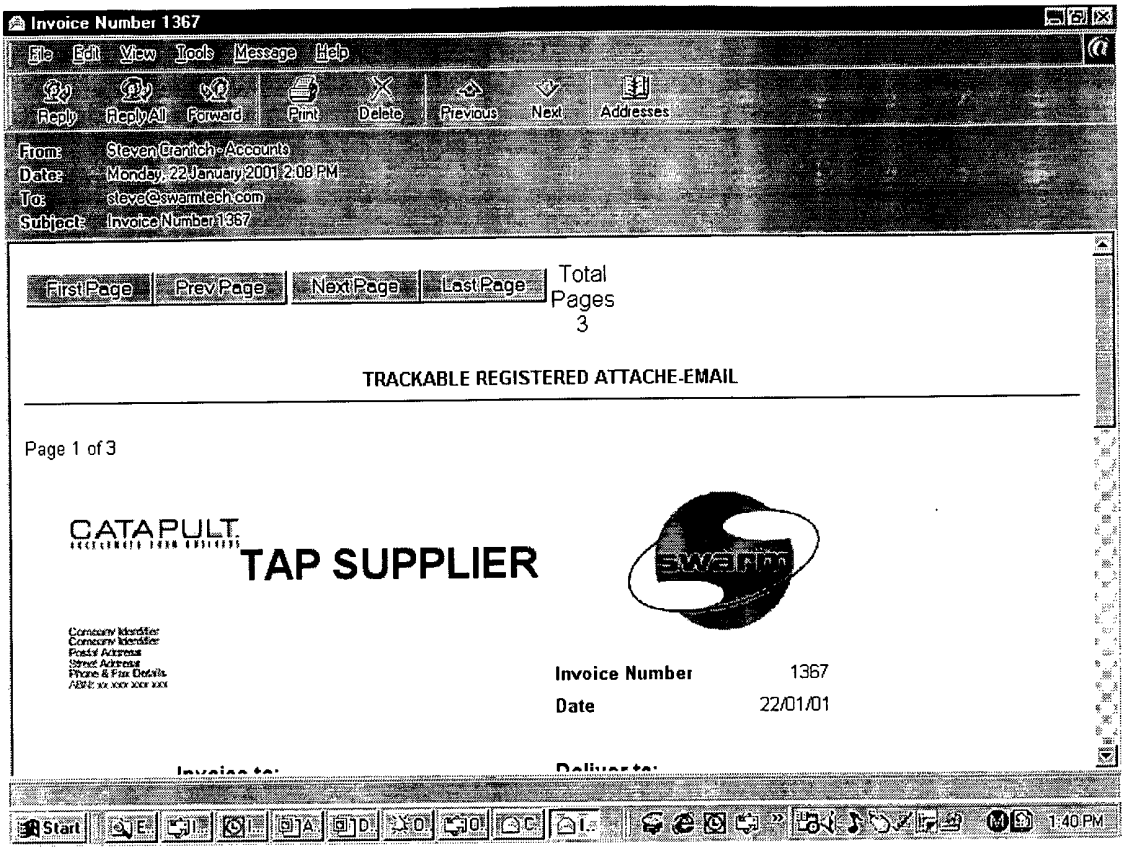

Invoice Number 1367
File Edit View Tools Message Help
Reply Reply All Forward Print Delete Previous Next Addresses
From: Steven Cranitch - Accounts
Date: Monday, 22 January 2001 2:08 PM
To: steve@swarmtech.com
Subject: Invoice Number 1367
First Page Prev Page Next Page Last Page
Total Pages 3
TRACKABLE REGISTERED ATTACHE-EMAIL
Page 1 of 3
CATAPULT
TAP SUPPLIER
Invoice Number 1367
Date 22/01/01
Start
1:40 PM

Figure 8

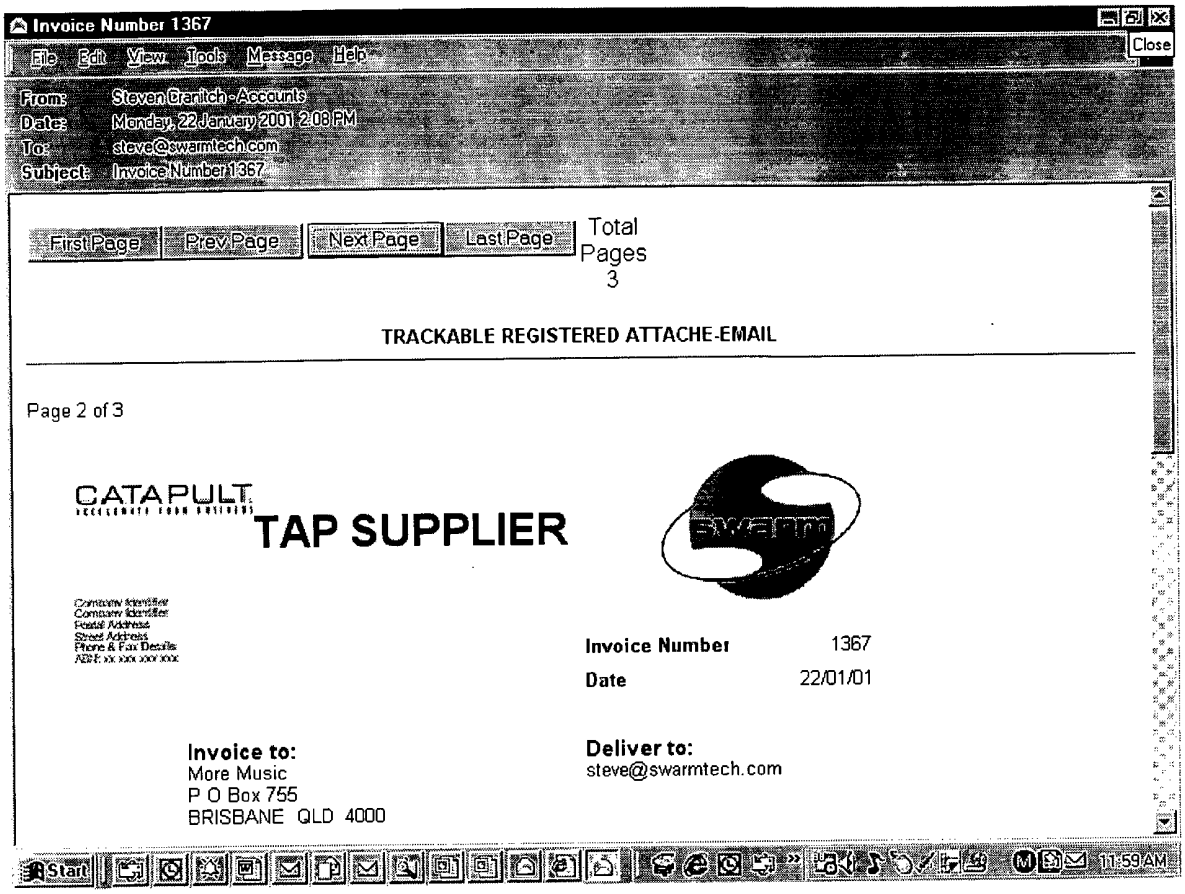

Invoice Number 1367
File Edit View Tools Message Help
Close
From: Steven Cranitch - Accounts
Date: Monday, 22 January 2001 2:08 PM
To: steve@swarmtech.com
Subject: Invoice Number 1367
First Page
Prev Page
Next Page
Last Page
Total Pages 3
TRACKABLE REGISTERED ATTACHE-EMAIL
Page 2 of 3
CATAPULT
TAP SUPPLIER
Invoice Number 1367
Date 22/01/01
Invoice to:
More Music
P O Box 755
BRISBANE QLD 4000
Deliver to:
steve@swarmtech.com
Start
11:59 AM

Figure 11

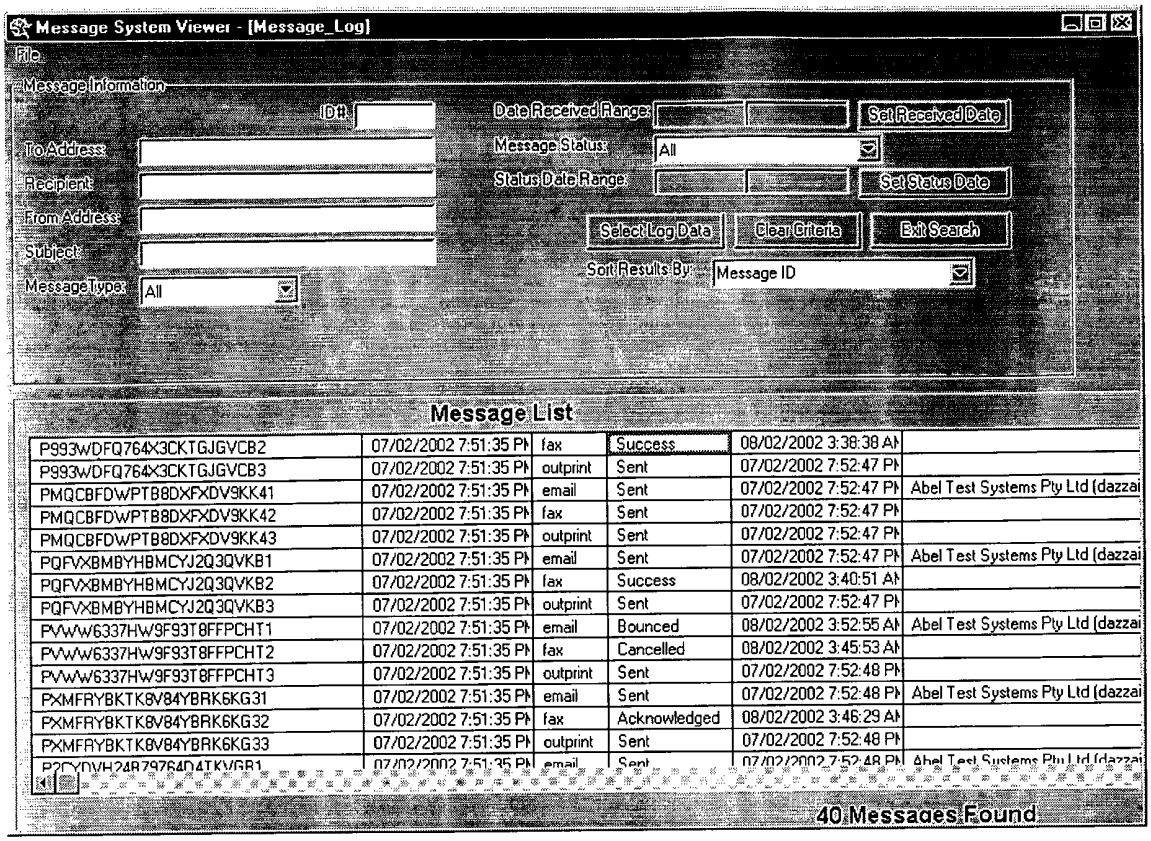

Message System Viewer - [Message_Log]
File
Message Information
ID#:
To Address:
Recipient:
From Address:
Subject:
Message Type:
All
Date Received Range:
Set Received Date
Message Status:
All
Status Date Range:
Set Status Date
Select Log Data
Clear Criteria
Exit Search
Sort Results By:
Message ID
Message List
P993WDFQ764X3CKTGJGVCB2 07/02/2002 7:51:35 PM fax Success 08/02/2002 3:38:38 AM
P993WDFQ764X3CKTGJGVCB3 07/02/2002 7:51:35 PM outprint Sent 07/02/2002 7:52:47 PM
PMQCBFDWPTB8DXFXDV9KK41 07/02/2002 7:51:35 PM email Sent 07/02/2002 7:52:47 PM Abel Test Systems Pty Ltd (dazzai
PMQCBFDWPTB8DXFXDV9KK42 07/02/2002 7:51:35 PM fax Sent 07/02/2002 7:52:47 PM
PMQCBFDWPTB8DXFXDV9KK43 07/02/2002 7:51:35 PM outprint Sent 07/02/2002 7:52:47 PM
PQFVXBMBYHBMCYJ2Q3QVKB1 07/02/2002 7:51:35 PM email Sent 07/02/2002 7:52:47 PM Abel Test Systems Pty Ltd (dazzai
PQFVXBMBYHBMCYJ2Q3QVKB2 07/02/2002 7:51:35 PM fax Success 08/02/2002 3:40:51 AM
PQFVXBMBYHBMCYJ2Q3QVKB3 07/02/2002 7:51:35 PM outprint Sent 07/02/2002 7:52:47 PM
PVWW6337HW9F93T8FFPCHT1 07/02/2002 7:51:35 PM email Bounced 08/02/2002 3:52:55 AM Abel Test Systems Pty Ltd (dazzai
PVWW6337HW9F93T8FFPCHT2 07/02/2002 7:51:35 PM fax Cancelled 08/02/2002 3:45:53 AM
PVWW6337HW9F93T8FFPCHT3 07/02/2002 7:51:35 PM outprint Sent 07/02/2002 7:52:48 PM
PXMFRYBKTK8V84YBRK6KG31 07/02/2002 7:51:35 PM email Sent 07/02/2002 7:52:48 PM Abel Test Systems Pty Ltd (dazzai
PXMFRYBKTK8V84YBRK6KG32 07/02/2002 7:51:35 PM fax Acknowledged 08/02/2002 3:46:29 AM
PXMFRYBKTK8V84YBRK6KG33 07/02/2002 7:51:35 PM outprint Sent 07/02/2002 7:52:48 PM
40 Messages Found

Figure 9

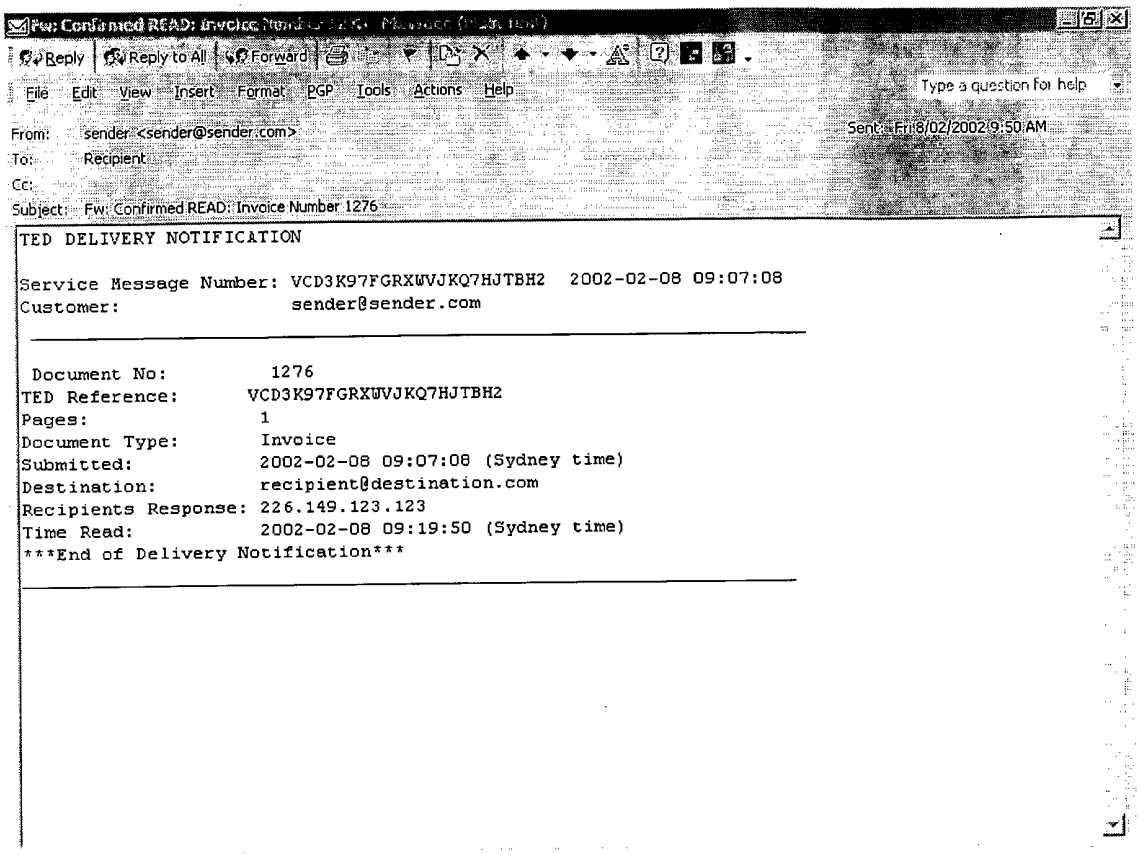

Fw: Confirmed READ: Invoice
Reply
Reply to All
Forward
File Edit View Insert Format PGP Tools Actions Help
Type a question for help
From: sender <sender@sender.com>
To: Recipient
Cc:
Subject: Fw: Confirmed READ: Invoice Number 1276
Sent: Fri 8/02/2002 9:50 AM
TED DELIVERY NOTIFICATION
Service Message Number: VCD3K97FGRXWVJKQ7HJTBH2 2002-02-08 09:07:08
Customer: sender@sender.com
Document No: 1276
TED Reference: VCD3K97FGRXWVJKQ7HJTBH2
Pages: 1
Document Type: Invoice
Submitted: 2002-02-08 09:07:08 (Sydney time)
Destination: recipient@destination.com
Recipients Response: 226.149.123.123
Time Read: 2002-02-08 09:19:50 (Sydney time)
End of Delivery Notification

Figure 10

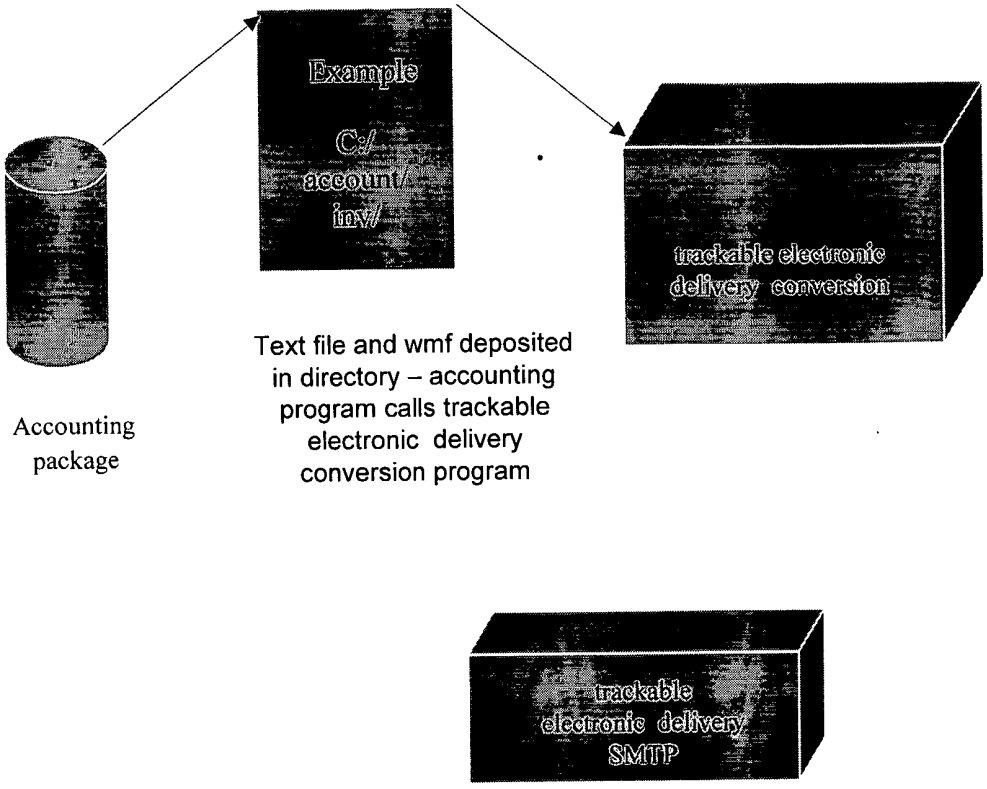

Example
C:/
account/
inv/
trackable electronic
delivery conversion
Accounting
package
Text file and wmf deposited
in directory – accounting
program calls trackable
electronic delivery
conversion program
trackable
electronic delivery
SMTP

Figure 12

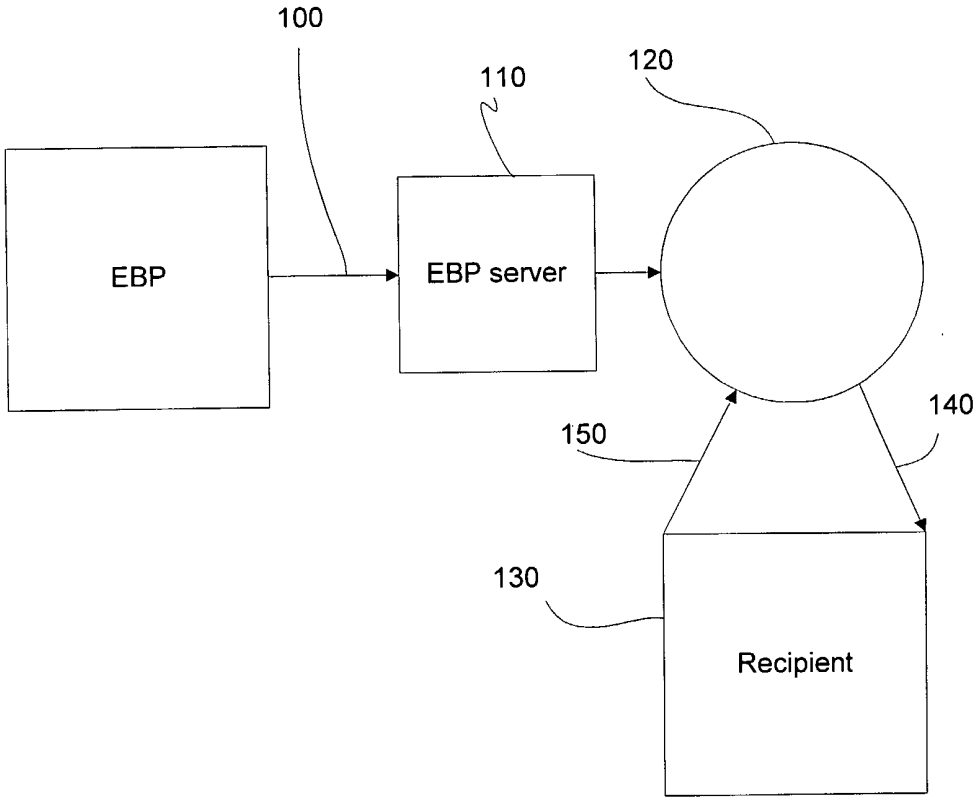


Figure 13

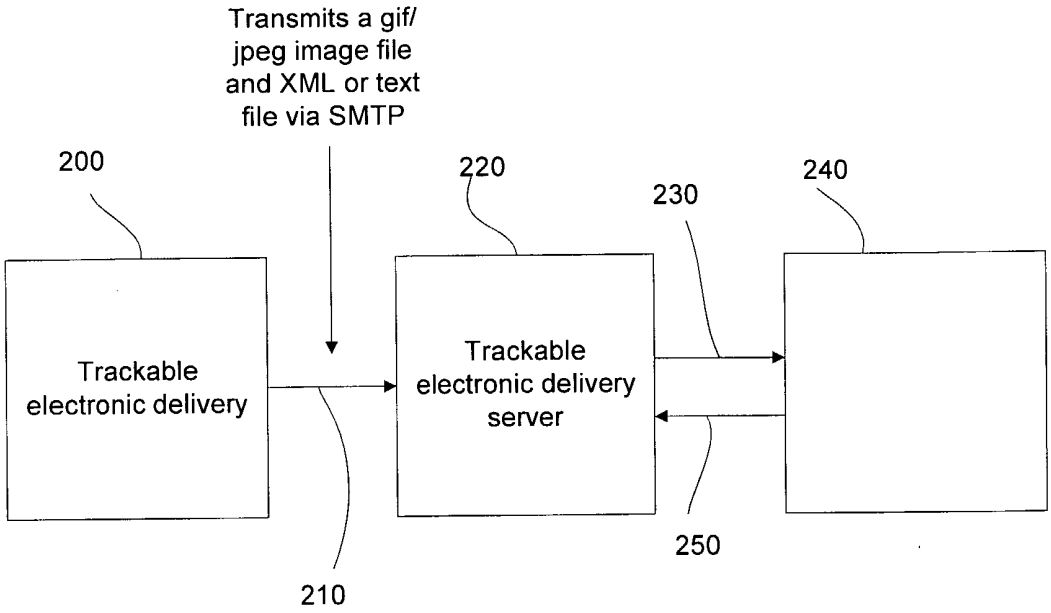
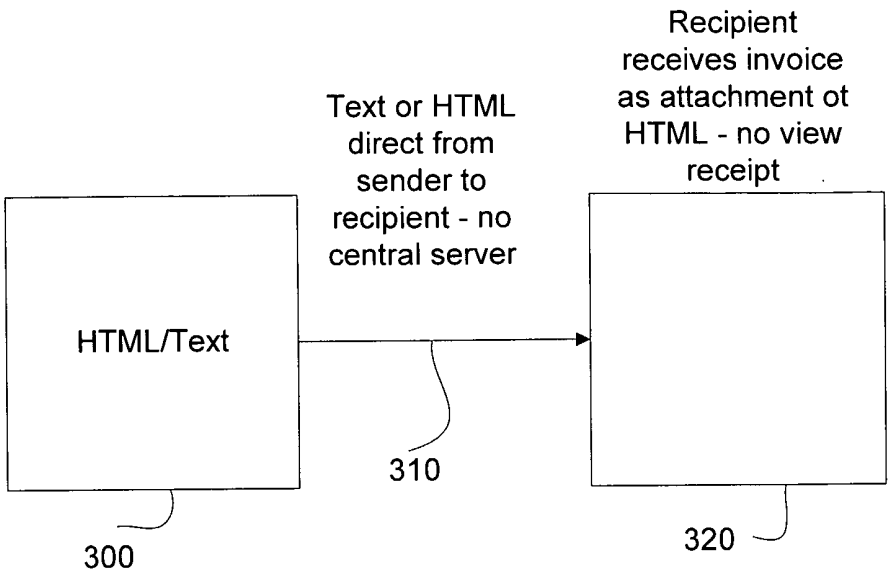

Transmits a gif/ jpeg image file and XML or text file via SMTP
200
220
230
240
Trackable electronic delivery
Trackable electronic delivery server
210
250

Figure 14


Recipient receives invoice as attachment ot HTML - no view receipt
Text or HTML direct from sender to recipient - no central server
HTML/Text
310
300
320

INTERNATIONAL SEARCH REPORT

International application No.
PCT/AU02/00132

A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl. [7]: G06F 17/60

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)

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

.

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

WPAT Keywords: email, open, track, image, invoice and similar terms
ECLA G06F 17/60A2 Keyword: display G06F 17/60B8 Keywords: electronic mail

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 1030509 A (MATSUSHITA GRAPHIC COMMUNICATION SYSTEMS, INC.) 23 August 2000 Whole document	
A	EP 1001359 A (SHARP KK) 17 May 2000 Whole document	

[X] Further documents are listed in the continuation of Box C [X] 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 another 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
9 May 2002	20 MAY 2002
Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustralia.gov.au Facsimile No. (02) 6285 3929	Authorized officer **ROSEMARY LONGSTAFF** Telephone No : (02) 6283 2637

INTERNATIONAL SEARCH REPORT

International application No.
PCT/AU02/00132

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6018774 A (MAYLE et al.) 25 January 2000 Whole document	
A	WO 99/21330 A (E-STAMP CORP.) 29 April 1999 Whole document	
A	EP 898410 A (CANON KK) 24 February 1999 Whole document	
A	WO 98/49643 A (POSTX CORP.) 5 November 1998 Whole document	

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.
PCT/AU02/00132

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member					
EP	1030509	JP	2000236412				
EP	1001359	CN	1255676	JP	2000148753		
US	6018774	EP	1002273	WO	9901818		
WO	9921330	AU	96960/98	GB	2346504		
EP	898410	CN	1212560	JP	11065963		
WO	9849643	AU	71544/98	BR	9808990	EP	978078
		US	6014688	US	6304897		

END OF ANNEX