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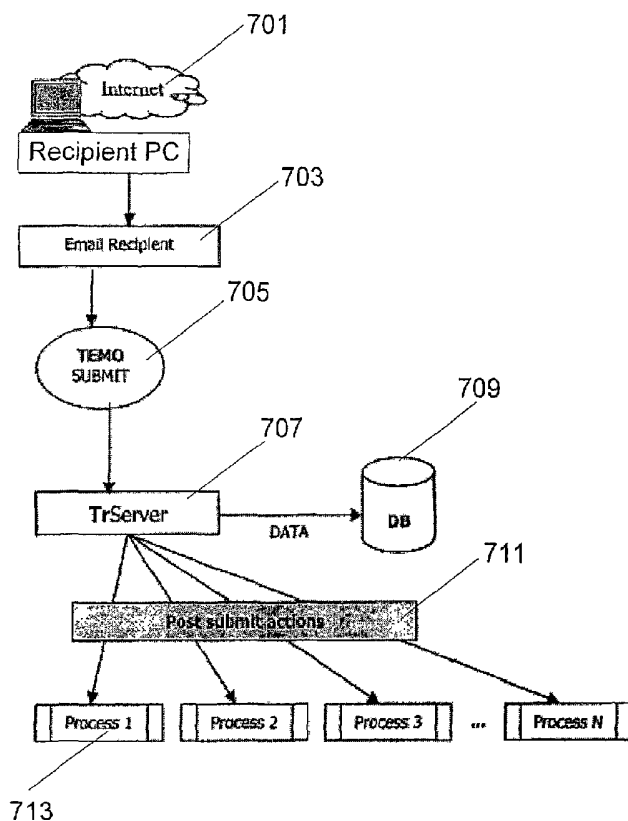
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(54) Title: METHOD AND SYSTEM OF SENDING AND TRACKING ELECTRONIC MAIL MESSAGES



(57) Abstract: An embedded mail object (Fig. 3a, 319) to include in electronic mail messages (Fig. 3a, 321). In one embodiment, a method may include associating an embedded mail object with a unique electronic mail message (Fig. 4). For example, an embedded mail object may include a newsletter, a survey, a quiz, or a promotion (Fig. 3a, 319). The electronic mail messages may be transmitted (Fig. 6, 609) to a recipient (Fig. 7, 703). Data about the recipient may be received and processed (Fig. 7, 711, 713) to present results (Fig. 12, 1207) or send another round of electronic mail messages (Fig. 14). Embedded mail objects may also be used to keep track of which electronic mail message subjects are responded to more often to improve electronic mail message advertising (Fig. 16). Embedded mail messages may also allow secure transactions between a recipient and the user of the electronic mail message (Fig. 17).



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**TITLE: METHOD AND SYSTEM OF SENDING AND TRACKING  
ELECTRONIC MAIL MESSAGES**

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**Background of the Invention**1. **Field of the Invention**

10 The present invention relates generally to the field of communication networks and electronic mail (electronic mail message) list management systems. More specifically, the present invention relates to a method and system of sending, tracking and embedding certain interactive functionality within electronic mail messages.

2. **Description of the Related Art**

15 Conventional electronic mail message list management systems are particularly limited in the ease and efficiency with which electronic mail messages may be created and with which electronic mail message lists may be managed, the content which may be included within an electronic mail message transmitted to a list, and the ease of extracting useful information about the use and/or transaction capability from the recipient, as well as to determine the effectiveness of a given electronic mail message list.

20 **Summary of the Invention**

In one embodiment, a user may define Embedded Mail Objects (EMOs) to include in electronic messages. In one embodiment, a method may include associating an embedded mail object with a unique electronic mail message, transmitting the unique electronic mail message to a recipient, receiving data from the recipient utilizing the embedded mail object on a user level, and retrieving the received data directly from the unique electronic mail message.

25 In one embodiment, a method may include generating a uniform resource locator for a web document, the uniform resource locator including a classification identifier associated with a class, transmitting the uniform resource locator to a user, receiving a request for the web document including the uniform resource locator from the user, and identifying the class utilizing the classification identifier.

30 In one embodiment, a method may include transmitting an electronic mail message including a first subject line to each of a first plurality of recipients, transmitting the electronic mail message including a second subject line to each of a second plurality of recipients, monitoring an attribute of the transmitted electronic mail messages, and automatically associating one of the first subject line and the second subject line with the electronic mail message, and transmitting the electronic mail message to each of a third plurality of recipients in response to monitoring an attribute of the transmitted electronic mail messages.

35 In one embodiment, a method may include generating a plurality of electronic mail messages, automatically attaching a unique secure document to each of the plurality of electronic mail messages, and transmitting each of the plurality of electronic mail messages to a corresponding one of a plurality of recipients. In one embodiment, a method may include selecting a data element from a plurality of data elements within a database, generating a database view based on the selected data element, generating a plurality of electronic mail messages, fetching data from the database view, and incorporating the fetched data from the database view into the plurality of electronic mail messages. In one embodiment, a method may include transmitting an image data file from a remote client data

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processing system to a local server data processing system, storing the image data file within the local server data processing system, incorporating the image data file within a plurality of electronic mail messages, transmitting the plurality of electronic mail message utilizing the local server data processing system.

In one embodiment, a method may include constructing a natural language query by example statement including a plurality of fields, identifying a plurality of recipients utilizing the natural language query by example statement, converting the natural language query by example statement to a structured query language statement, transmitting a data message and the structured query language statement to a server data processing system, executing the structured query language statement at the server data processing system, and generating an electronic mail message for each of a plurality of recipients at the server data processing system in response to executing the structured query language statement. In one embodiment, natural language may also be used to export data. For example, while a user is building a message, data may be exported from the user's database.

### **Brief Description of the Drawings**

A better understanding of the present invention may be obtained when the following detailed description is considered in conjunction with the following drawings, in which:

Figure 1 illustrates a high-level functional block diagram, according to one embodiment;

Figure 2 illustrates a display output of an Admin Client component, according to one embodiment;

Figure 3 illustrates a first display output of an Editor Client component, according to one embodiment;

Figure 3a illustrates an electronic mail message using an EMO developed by the Editor Client;

Figure 4 illustrates a second display output of an Editor Client component, according to one embodiment;

Figure 5 illustrates a third display output of an Editor Client component, according to one embodiment;

Figure 6 illustrates a first logical block diagram of a system including one or more EMOs, according to one embodiment;

Figure 7 illustrates a second logical block diagram of a system including one or more EMOs, according to one embodiment;

Figure 8 illustrates a first display output of an EMO Wizard component, according to one embodiment;

Figure 9 illustrates a second display output of an EMO Wizard component, according to one embodiment;

Figure 10 illustrates a third display output of an EMO Wizard component, according to one embodiment;

Figure 11 illustrates a fourth display output of an EMO Wizard component, according to one embodiment;

Figure 12 illustrates a functional block diagram of the retrieval of data using a query by example tool, according to one embodiment;

Figure 13 illustrates a first display output of an Import Client component, according to one embodiment;

Figure 14 illustrates a second display output of an Import Client component, according to one embodiment;

Figure 15 illustrates a first display output of an Admin Client component, according to one embodiment;

Figure 16 illustrates a first display output of a Report Module component, according to one embodiment;

Figure 17 illustrates a second display output of a Report Module component, according to one embodiment;

Figure 18 illustrates a communication network, according to one embodiment; and

Figure 19 illustrates a functional block diagram of an App Service Module component, according to one embodiment;

Figure 20 shows a flowchart of an embodiment of embedding EMOs, according to one embodiment;

Figure 21 shows a flowchart of an embodiment of using URLs with EMOs, according to one embodiment;

Figure 22 shows a flowchart of an embodiment of monitoring subject lines for electronic mail messages with EMOs, according to one embodiment;

5 Figure 23 shows a flowchart of an embodiment of attaching secure documents to electronic mail messages with EMOs, according to one embodiment;

Figure 24 shows a flowchart of an embodiment of incorporating database information in an electronic mail message with a EMO, according to one embodiment;

10 Figure 25 shows a flowchart of an embodiment using a remote client system and a local server, according to one embodiment; and

Figure 26 shows a flowchart of an embodiment of using structured query language with EMOs, according to one embodiment.

15 While the invention is susceptible to various modifications and alternative forms, specific embodiments thereof are shown by way of example in the drawings and will herein be described in detail. It should be understood, however, that the drawings and detailed description thereto are not intended to limit the invention to the particular form disclosed, but on the contrary, the intention is to cover all modifications, equivalents and alternatives falling within the spirit and scope of the present invention as defined by the appended claims.

#### **Detailed Description of Several Embodiments**

20 The following detailed description pertains to a method and system of sending, tracking, and embedding certain interactive functionality within electronic mail messages. Embodiments of the described method and system may include various features, and may be implemented in a variety of ways. For example, such embodiments may include various communications networks and data processing systems arranged in any of a number of configurations and including various hardware, firmware, and/or software components.

25 Figure 1 shows an embodiment of a high-level functional block diagram of a system for performing an embodiment. In the description below, particular embodiments are described. In one referenced embodiment, a system for sending and tracking electronic mail (electronic mail message) messages 109 is disclosed including components organized in an application service provider (ASP) model. Attributes of the described embodiments such as the number of components, component organization, and component references (e.g., App Service Module 30 101, Report Engine 103, App Client Module 105, Admin Client (see Figure 2), Import Client (not shown), Editor Client (see Figures 3, 4, and 5), DB Module 107, etc.) are presented for illustrative purposes only and should not be considered as limiting other alternative embodiments.

Figure 2 illustrates an embodiment of a display output of an Admin Client component. In one embodiment, the Admin Client may have a high-level hierarchy tree 201. By utilizing the admin client, the end user may be 35 capable of administering certain performance characteristics of an electronic mail message campaign and access the information used for the electronic mail message campaign by assigning attributes to list members, messages, and users for the campaign. As used herein a campaign may include, but is not limited to, an advertising campaign performed through electronic mail messages. The hierarchy may begin at the server level, the site level, the list level, the client level, the message level, and/or the user level. The hierarchy may include other levels and other 40 level orders.

Figures 3, 4, and 5 show several screen shots of the Editor Client which may utilize a “drag and drop” user friendly interface. The Editor Client may be capable of designing a rich electronic mail message, inserting several embedded mail objects (such as text and images). In one embodiment of the Editor Client, functionality may be added to allow the user to insert and classify links to objects in an electronic mail message and prepare the reporting engine to track information about recipients of the electronic mail messages and responses from the recipients of the electronic mail messages. In addition, Figure 3a illustrates an electronic mail message using an EMO developed by the Editor Client. For example, the electronic mail message 321 may have the EMO 319. In one embodiment, the electronic mail message 321 may have a link 315 and a header 317.

Within the figures, appendices, and this description of the various embodiments the prefix “TR” is utilized to indicate a component, however it should be appreciated that embodiments may be implemented with a wide variety of components without departing from the broader spirit and scope of the present invention. Similarly, the names associated with the various described or depicted components may be truncated for simplicity (e.g., App rather than Application, TREditor rather than Editor Client, etc.).

### **Embedded Mail Objects**

One embodiment may include embedding one or more Embedded Mail Objects (EMOs) in an electronic mail message. In one embodiment, the EMO may include at least two parts, a user part and a server part. The User Part may include objects (such as, but not limited to text, forms, and images) that a user can easily add to an outbound electronic mail message using an EMO Wizard component. In one embodiment, the server part may include support data and programming for the EMO.

Figure 6 illustrates a first logical block diagram of a system including one or more EMOs 601 according to one embodiment. In one embodiment, EMOs may include text and images comprising objects such as, but not limited to, a newsletter, survey, quiz, vote, or promotion. Other objects are also contemplated. In one embodiment, the Editor Client 603 may have preset EMOs 601. In another embodiment, the user may create new EMOs 601. The Editor Client 603 may transfer the EMOs to the App Service 605 to be inserted into the electronic mail messages after editing the EMOs. In one embodiment, EMOs 601 may still be editable after being inserted into the electronic mail message. In another embodiment, EMOs 601 may be generated on a user level. In one embodiment, a unique electronic mail message may be created for each recipient 607 using an EMO 601. As used herein, “unique” may refer to a personalized electronic mail message. The electronic mail messages 609 may then be distributed to recipients.

Figure 7 illustrates a second logical block diagram of a system including one or more EMOs, according to one embodiment. In one embodiment, the recipient 703 may transact with an EMO on the recipient’s personal computer (PC) 701 and submit EMO data 705 to the App Server 707. In one embodiment, the App Server 707 may add data in a database 709 and take validation actions such as, but not limited to, check an expiration date, check a first number of users, and check a first number of answers. In one embodiment, the App Server 707 may take post submit actions 711 such as redirect the recipient to a certain Uniform Resource Locator (URL) 713, update a list of extended fields, generate a unique response electronic mail message, generate a Telephone Application Protocol (TAP) message, and generate a Wireless Application Protocol (WAP) message. Other App Server 707 functions are also contemplated.

Figure 8 illustrates a first display output of an EMO Wizard component, according to one embodiment. Utilizing the EMO Wizard 801 component, a user may not be required to have any Hypertext Markup Language (HTML) or programming knowledge to create or validate an object or form. An EMO may contain any of a number of questions with any number of answers. In one embodiment, a question in the EMO may have various properties such as answer alignment and/or associated actions, events, or instructions and can be marked as required to answer the question. According to one embodiment, an event may be a subsequent act or activity in which no end-user/recipient participation is required and an action may be a subsequent act or activity necessitating or requiring some response or participation. In one embodiment, answers may have a relation to one or more of a number of predefined Extended Database List Fields or be marked as a correct answer.

In one embodiment, a user may also set one or more of a number of general EMO properties such as titles, instructions, font, and/or width and configure an On Submit event, causing the setting of an allow multi-submit flag after submit URL redirect, on error URL redirect, and/or after submission text or a predefined action or event occurrence. In an alternative embodiment, special EMO properties may be configured as an expiration date, a number of first 'N' users, and/or a number of correct answers and trigger a subsequent event or action.

The server part of an EMO in the described embodiment may be an intelligent component. In one embodiment, the server part may be responsible for collecting and validating data submitted by a user to an active EMO such that all EMO submits may be reported at a user detail level or granularity. In one embodiment, the server part may also enable reports about received EMO responses from recipients. Other information about the recipient may also be included.

In one embodiment, a user may select an EMO type from a number of predefined types including, but not limited to, EMO types such as newsletter rating, newsletter forward, rated newsflashes, customer survey, customer quiz, customer rally quiz, customer exams, customer vote, customer point of view, promotions (with or without expiring offers), alerts, and bill fulfillment. Other EMOs are also contemplated.

A newsletter rating EMO may contain rating questions (e.g., a yes/no rating, a poor-excellent rating, or a numeric rating with single choice answers). A newsletter forward EMO may include or be utilized to include a text box in an outgoing mail where a user or recipient may include one or more electronic mail message addresses for forwarding. The server part of the EMO may then build a unique (i.e., personalized) electronic mail message for each referral address with tracking capabilities to the referrals and may invite referrals to subscribe to the list. A customer survey EMO may include or be utilized to create a standard survey with any number of questions in the form of radio buttons, check boxes, text boxes, pulldown menus, etc.

A customer quiz EMO may include or be utilized to create a simple user quiz, adding a variety of questions in the form of text areas, multiple choice check boxes, text boxes, pulldown menus, etc. A customer rally quiz EMO may include or be utilized to create a quiz with a time stamp schedule or configured to accept only the first 'N' responding users, or the first 'N' correct answers submitted. A customer vote EMO may include or be utilized to make a standard push poll including a number of questions. A point of view EMO may include or be utilized to create a standard EMO including text areas to determine a user's point of view. A promotion EMO may include or be utilized to create promotions with or without expiring offers (e.g., based on a time stamp schedule or configured to accept only the first 'N' users).

Figure 9 illustrates a second display output of an EMO Wizard component, according to one embodiment. Once an EMO type has been selected in the described embodiment, a user then may add questions and answers to

the EMO. To add a question and corresponding answer, a user may select a question type 901, compose the question text 903, choose an alignment style, add instructions 905, actions or events and may mark the question as required. Figure 10 illustrates a third display output of an EMO Wizard component according to one embodiment. For example, a user may add corresponding answer text 1001 that may be linked with one more list extended database fields and/or marked as the correct answer. In one embodiment, question types may include, but are not limited to single choice, multiple choice, rating questions, text input questions, matrix group questions, and priority questions.

A single choice question may create radio buttons and/or combo boxes or pulldown menus from which end-users (electronic mail message recipients) may select only one answer. Single choice questions may be utilized for yes/no, male/female questions, etc. Multiple choice questions, by contrast, may create check boxes from which an end-user may select one or more answers. Rating questions may create radio buttons from which an end-user may select only one answer used (e.g., a poor-excellent rating, 1-5 rating, etc.). Text input questions create a text box which may be configured or masked to accept only numbers, text, or dates. Group questions may be utilized to create a group of single choice, multiple choice, rating and/or text input questions. Priority Questions may group questions including radio buttons where the users may specify priorities.

Figure 11 illustrates a fourth display output of an EMO Wizard component, according to one embodiment. Following the addition of one or more questions and answers in the described embodiment, a user may edit various EMO properties such as titles 1101, footers, submit button text 1103, font 1105, and one or more On Submit events 1107 or actions. Additionally, a user may set EMO special properties such as an expiration date 1109, a first 'N' user's number 1111, and/or a first 'N' answers number, etc.

In one embodiment, a created EMO may be automatically inserted into an associated outgoing electronic mail message using Extensible Markup Language (XML). Thereafter, when an electronic mail message recipient/end-user submits data via an EMO associated with a received electronic mail message, a server associated with the EMO (e.g., an EMO Service Server) may validate that the user has submitted data from a valid (i.e., not expired) EMO and/or that all required questions have been answered. Once the data submission has been validated, the submitted data and related information (e.g., a user identifier, a message identifier, a list identifier, and/or a site identifier) may be stored within an associated data base on the server side. In one embodiment, the submitted data may be included in building a recipient profile for a specific recipient of an electronic mail message.

Following the submission of data via an EMO associated with a received electronic mail message detailed, recipient-specific information such as the date and/or time of the opening of the associated electronic mail message and/or the submission of the data/response, recipient answers to specific questions, etc. may be determined and reported. Similarly, a profile for a specific use may be composed and reported based on a collection of EMO data/answer submissions.

The system for embedding EMOs may include, but are not limited to, events, actions, etc. triggered directly from an electronic mail message as opposed to from a web interface (e.g., web browser client) where the activity takes place only if the end-user/electronic mail message-recipient accesses a web site, possibly requiring a user login or the use of a user identifier such a cookie, and answers the questions of a survey. In one embodiment, the system for embedding EMOs may include allowing a recipient not to have to authenticate himself or herself as compared to a web interface environment.



Because the electronic mail message transmission and tracking/reporting may be performed by the same system in the described embodiment, the identity of the specific recipient who opens the received electronic mail message and their specific answers to an EMO's associated questions may be automatically determined via one or more tracking applications. In an alternative embodiment, one or more of a number of post-submit actions may then be taken following such a determination and dependent on a recipient's answers including the creation of a complex recipient profile over time.

In one embodiment, the EMO may allow secure transactions with the recipient. For example, a credit card statement may be included with the EMO. The credit card statement may be generated with data from a client's in house database. In one embodiment, the recipient may be able to pay a credit balance by clicking a button or other indicator on the EMO. Other secure transactions are also contemplated. In addition, a secure EMO may be sent to a recipient. In one embodiment, the secure EMO may be sent to the recipient in a secure fashion using an encryption method such as, but not limited to, Secured Socket Layer (SSL) to send the EMO in a credible secure manner. For example, secure EMOs may include financial, medical, and personal information which may be sensitive. Other sensitive information may also be contemplated.

In yet another alternative embodiment, video and/or image data files, such as Moving Picture Experts Group (MPEG) format files, graphics interchange format (GIF) files, Joint Photographic Experts Group (JPEG) format files, tagged image file format (TIFF), or the like for use in EMOs may be transmitted from a remote location via a App Client Module software program and stored within a local server data processing system including a App Service Module component for transmission via one or more electronic mail messages to members or subscribers of a electronic mail message list group.

Figure 16 illustrates an embodiment of a first display output of a Report Module component. Figure 17 illustrates an embodiment of a second display output of a Report Module component. As the results from the EMOs are collected, reports may be generated to show the results. For example, total sent messages 1601, total delivered messages 1603, number of unique recipients 1605, total number of electronic mail messages opened 1607, total views per recipient 1609, unique views ratio 1611, and interest ratio 1613 may be reported. In addition, bar graph data 1701 for the different results may also be displayed. In one embodiment, results from the electronic mail messages may be provided as strings of information to systems such as, but not limited to Customer Relationship Management (CRM) system, a call center, a credit scoring system, a legacy system. In one embodiment, the strings of information may be extracted directly from electronic mail message with an embedded EMO.

### **Query by Example**

According to one embodiment, a query by example (QBE) tool may be provided (e.g., merged into the Editor Client application described herein) by which a user may define target recipients for an electronic mail message in an easy process which doesn't require a user to have detailed database knowledge. In one embodiment, the query by example targeting tool enables a user to send targeted electronic mail messages to a subset of recipients in the user's database. In one embodiment, query by example is implemented using "natural language" statements that look like any English phrase while providing a very high precision tool to build queries. In one embodiment, natural language may also be used to export data for other reasons. For example, while a user is building an electronic mail message, data may be exported from the user's database for the user's reference.

In one embodiment, query by example may use all recipient data available via one or more of a number of data elements previously collected by App Service Modules; such data may include, but is not limited to, recipient domain, recipient local part (the name of the electronic mail message account, before the @), recipient subscription date, recipient number of bounces, if a recipient expires, recipient expiration date, recipient navigator name, recipient navigator version, recipient screen area, recipient screen colors, recipient connection type (LAN, modem, cable, etc) and/or plug-ins installed on the recipient's browser application (e.g., Netscape Navigator). In an additional embodiment, query by example may also work with extended fields, if present, (e.g., age, first name, last name, address, etc.) associated with a list's recipients. In an alternative embodiment, a query by example query may contain statements using information generated for any prior message such as recipient's clicks on any classified link, selecting either the link itself or the classification name for a group of links and/or any data collected by one or more previous EMOs, such as recipient's answers to one or more certain questions.

According to one embodiment, an Editor Client user may first log in and select an electronic mail message list to work on. Once an electronic mail message list has been selected, the Editor Client may access a database via a network (e.g., the Internet, World Wide Web, etc.) and retrieve data including but not limited to a Users' extended database fields (if any), a users' extended fields types (these could be Numeric, String of char, Date and/or DateTime), values that are predefined and don't typically change, e.g. sex (M or F, M or W, etc.), messages already approved and launched. This may include data associated with these messages such as links, classification(s), and subjecting information, and a previous EMO answers.

Following the login process described herein, the Editor Client may have all the necessary data needed to build any QBE statement. Some query statements are built automatically in order to make the QBE process faster.

Figure 12 illustrates a functional block diagram of the retrieval of data using a query by example tool according to one embodiment. In the described embodiment, a query by example statement may next be built. At the last stage of the process of editing and sending message process, a user may build a query by example (QBE) statement using English-like or "natural language" statements, by changing one or more predefined words and/or conditions. As one example, each of the words shown below in boldface could be changed by a user to build a QBE statement in one embodiment.

For example, initially a user may see the following as an illustrative example:

"\*Choose users where **all** of the following apply:"

In the illustrative example the word "**all**" may take at least one of the following values: any, none, not all and all. The user may then create one or more of their own statements. The Editor Client 1201 may create at least three kinds of statements according to one embodiment: user condition, message condition, and EMO Condition. A "user condition" statement may use all of a user's available data, such as name, browser name, domain part, etc. A "message condition" statement may use data that is generated by both a message and a user's actions on the message. AN EMO condition statement may use previous responses to a EMO.

An exemplary "user condition" type statement may include the following form according to one embodiment:

"\*DB User Field Conditional Operator Condition"

In the first DB User field of the "user condition" type statement form, the user may choose any of a number of a recipient's fields such as name, birthday, connection type, etc. In the second Conditional Operator field, the user may choose a conditional word which may vary depending on the type of the data being compared. For

example, a Conditional Operator field may include, but is not limited to, any of the following data type conditional words "If the data includes a String of chars (name, domain part, etc.): is equal to, is not equal to, is starting with, is not starting with, contains, not contains."; "If the data includes a Numeric value (age, num. of bounces, etc.): is equal to, is not equal to, is less than, is less or equal than, is greater, is greater or equal than."; and "If the data includes a Date or DateTime (birthday, subscription date, etc.): is equal to, is not equal to, is less than, is less than or equal to, is greater than, is greater than or equal to." In one embodiment, recipient data may stay on an in-house database and may only be referenced as needed for the EMO. For example, the EMO may need to access the user's database to fulfill established merge rules.

Finally, the third Condition field may represent the condition that has to be matched. For example, if the first selected field was Sex having one of two values: M and F, when the user selects or clicks on Condition, a popup menu may appear showing only these two values. The user may then choose any one of the available options. In an alternative example, if the first selected field was domain part, a text input window may appear rather than the popup menu in one embodiment.

An exemplary "user condition" type statement according to one embodiment might therefore be Choose users where all of the following apply: User domain starts with yahoo.com.

According to one embodiment, a user may change any of the statement fields by selecting or clicking on any field to popup a window where the user can change the field's (e.g., DB User field, Conditional Operator field, or Condition field) value.

An exemplary "message condition" type statement may include the following form according to one embodiment of the present invention:

"\*Conditional Operator Condition"

In the first Conditional Operator field of the "message condition" type statement form a user may have at least four options according to one embodiment: 1) recipient clicked on, 2) recipient not clicked on 3) recipient opened electronic mail message, and 4) recipient did not open electronic mail message. If the user chooses either recipient clicked on or recipient not clicked on, then in the second Condition field, a user may select either a classification (e.g., a trewey classification) or any particular link inside any classification for any launched message according to one embodiment. Options for the Condition field may then be shown to the user utilizing a popup window where the user can choose any message, and then any class or link inside a class. If the user chooses either recipient opened the electronic mail message or recipient did not open the electronic mail message, in the second condition field the user may choose a message by its subject and/or by its launch time according to one embodiment.

Exemplary "message condition" type statements according to alternative embodiments might therefore include a User not clicked on <http://www.tralix.com/> (In this example, the user selected a link, rather than a class), a User clicked on Novels→Science Fiction→Star Trek, (Here, the user selected a class which may contain zero or more links) and a user opened "Mexicanas e fares (launched on 5<sup>th</sup> of February)" (Here, the user selected both an electronic mail message subject and a launch date).

A user may build as many statements as he or she likes, combining any number of "message condition" and "user condition" statements. Because the data may already be contained within the Editor Client, the described QBE building process may be accomplished very quickly.

Figure 12 illustrates a functional block diagram of the retrieval of data using a query by example tool according to one embodiment. After a QBE statement is built, the query may then be stored and executed. In one

embodiment, the Editor Client 1201 may not perform any query to the database during the time the user is building the QBE. When the user finishes the process, he or she may optionally see how many recipients the query is applicable to by showing the number of recipients but not the recipient's data.

When an electronic mail message is sent, the associated query statements are parsed and converted to standard structured query language (SQL) statements which may be compatible with any number of known database systems (e.g., relational databases, object-oriented databases, etc.). Then the SQL statements may be sent to the server along with the electronic mail message data. The electronic mail message may be stored in the database as well as the SQL statements. When the message is ready to be launched, an application TrDaemon on the server side, may read and execute the SQL statements, generating the messages to the recipients that match the query and launch the electronic mail message to them. The electronic mail messages are sent over the Internet 1203. The result data 1207 from the EMO may be sent back from the recipient to a database 1205.

### Remote Database Access

Figure 13, 14, and 15 illustrate display output of an Import Client component according to one embodiment. In one embodiment, data may be accessed using either an Import Client component (e.g., for batch jobs to obtain electronic mail message list information, electronic mail message addresses, names, etc.) or a Database (DB) Merge component for dynamic incorporation of data into electronic mail messages. Both may obtain information from various sources including a delimited text file such as a comma separated value (CSV) file, a database view, and/or XML schema.

A database view may contain a client-defined/limited portion of data from a client database not hosted within the App Server app. In one embodiment, a database view may contain data from at least an electronic mail message address field so that electronic mail messages can be sent out. The list of electronic mail message addresses may then be sent to an App Service Module component.

A client may limit the data that is sent to the App Service Module component by selecting what information is to be sent (e.g., send the name and electronic mail message address but not the home address or phone number fields, etc.). In one embodiment, no information may be sent about client customers in a database who are not going to receive the electronic mail message to be currently transmitted.

In one embodiment, the EMO may be used to gather information including, but not limited to, a date and time the electronic mail message was opened, where the electronic mail message was opened, if the electronic mail message was forwarded, a recipient's operating system name and version, an engine version of the recipient's browser, whether the recipient's cookies are enabled or disabled, a recipient's screen resolution, a recipient's deep screen resolution (such as, but not limited to a number of colors, palette, number of bits), information about the recipient's java version, timestamps on first openings and clickthroughs, language, machine internet protocol (IP), and plug-ins. In one embodiment, EMOs may also be used to track clickthroughs by categories (for example, as defined by a list administrator) and paths (such as behavioral analysis).

In one embodiment, a user may select a group of recipients using the import interface 1301. For example, the user may enter a filename 1305 with a list of recipients 1307. In one embodiment, the user may also import the recipient's name and domain 1401 and specify what parts of the recipient's name 1403 to use with the electronic mail message utilizing the EMO. In one embodiment, the Admin Client may also be used to view a list 1501 of the electronic mail message address selected to use a certain EMO.

**Classification of Links**

In one embodiment, categorization information (e.g., one or more classifications such as Dewey Decimal classifications, Library of Congress classifications, "treway" classifications, any combination thereof, or the like) may be sent from a client to App Service Module component utilizing an App Client Module software program. In one embodiment, each category may be associated with a category number based on a three-level, per-list classification system. Such a classification system may include for example, 100 first-level categories, 1000 second-level categories, and 10,000 third-level categories. In one embodiment, the three category levels may be organized from a broad level of classification at the first level, to a more narrow level of classification at the second level, to a most narrow level of classification at the third level. A unique URL or "link" associated with the category number may then be created within each electronic mail message to be transmitted. When a customer/end-user receives the electronic mail message and clicks on the link included therein, he/she may be redirected first to an App Service server which identifies the category of the link and then to the final page destination. Because each link is unique, the specific electronic mail message recipient who accessed the link may also be determined at the redirection App server destination. In an alternative embodiment, other information may be obtained about a customer/end-user when the link is activated such as whether JAVA or cookies are enabled, their geographic location, etc. In one embodiment, links may be encrypted. Also, in one embodiment, data transmitted for the EMO may be encrypted.

**Additional Embodiments**

In one alternative embodiment, a technique known as "round-robin subjecting" may be utilized in which one or more test subject lines are associated with an electronic mail message to be sent to a number of subscribers of an electronic mail message list. The test-subjected electronic mail messages may then be transmitted to a portion of the total number of list subscribers to determine the effectiveness and/or impact of the test subject.

In one embodiment, the effectiveness and/or impact of the test-subjected electronic mail messages is determined by monitoring certain attributes of the transmitted electronic mail messages such as what percentage or portion of the total number of test-subject messages were opened, how quickly following delivery the messages were opened, how many of the messages were forwarded, etc. In another alternative embodiment, the effectiveness and/or impact of the test subjected electronic mail messages is utilized to automatically associate or assign a subject to electronic mail messages to be transmitted to other subscribers of the electronic mail message list.

As one example, a number of test message groups could be created each with its own test subject line and transmitted to a number of subscribers to an electronic mail message list (e.g., 5% of the subscribers to the list) with the bulk or remainder of the electronic mail messages being transmitted with the test subject line having the greatest effectiveness or impact. Alternatively, a first subject line could be associated with a portion (e.g., 5%) of the total number of messages to be transmitted to a given electronic mail message list. It may then be determined whether the monitored effectiveness or impact of the electronic mail messages including the first subject line met and/or exceeded a predefined threshold (e.g., 60% of the messages opened within 24 hours of delivery). The first subject line may then be associated with the remaining (i.e., 95%) messages to be transmitted to the list if the threshold was met or exceeded and a second/alternate subject line could be utilized otherwise.

In another embodiment, the system may be utilized to automatically attach secure documents to each of a number of electronic mail messages for transmission to a number of recipients where each secure document is unique to a particular user. For example, a secure portable document format (PDF) document may be attached to

each of a number of electronic mail messages to be transmitted to members or subscribers of an electronic mail message list. In an alternative embodiment such a technique may be utilized to transmit secure and personalized billing information to members or subscribers of an electronic mail message list such as customers of a particular business.

5 In one embodiment, after a first round of results are received, the user may select another set of recipients out of the recipients that responded to send another electronic mail message to. For example, the user may select a set of recipients who responded affirmatively to one question in the electronic mail message to send an advertisement to or to send an additional EMO.

10 In one embodiment, the system may verify if the recipient of an electronic mail message with an EMO has a text-only-electronic mail message client. If the recipient of the unique electronic mail message is a text-only recipient, the unique electronic mail message may include a link to an online website to allow the recipient to view the unique electronic mail message. In one embodiment, the link may be to an online website with personalized information about the recipient. Other links and views are also contemplated.

15 In one embodiment, the system may design a marketing program that may include multiple personalized messages to be sent during the life of a marketing program in an automatic manner. In one embodiment, the personalized messages may be sent according to when the recipient responds to the electronic mail messages. Other timing is also contemplated. In one embodiment, a flowchart of the messages and when the messages will be sent may be prepared by the user. In one embodiment, a flowchart may be prepared for the user using the automated inputs provided by the user.

20 In one embodiment, if the recipient replies to the electronic mail message by using a "Reply" feature instead of the designated "Submit" button, the system may recognize the message received, identify a relative recipient, and add keep track of the results of the electronic mail message. In one embodiment, the electronic mail message may be archived. Other responses to inbound messages are also contemplated.

Figure 18 shows an embodiment of a communication network for the system according to one embodiment.  
 25 In one embodiment, a customer local area network (LAN) 1803 may be coupled to a LAN 1801 over the Internet 1815. In one embodiment, the customer LAN may contain terminals connected over an Ethernet 1813 and coupled to a customer database 1805. The customer database 1805 may contain potential electronic mail message recipient information (such as, but not limited to, name, electronic mail message address, age, and address). Other information stored on each potential recipient is also contemplated. In one embodiment, the LAN 1801 may have  
 30 terminals coupled through an Ethernet 1811. An application server 1807 may be coupled to the LAN 1801, and an application server 1809 may be coupled to the customer LAN 1803. Other systems are also contemplated. In one embodiment, an App server 1901 coupled to the LAN may provide several different functions (see Figure 19)

In one embodiment, each electronic mail message may have a header which includes a link to a website (which may be encrypted) showing where and when the recipient agreed to join a list of people to be sent an  
 35 electronic mail message by the client. Other information about the recipient agreeing may also be included. In one embodiment, this header may be used by junk electronic mail message detectors to determine if the recipient should receive the electronic mail message. In one embodiment, the header may indicate to a junk electronic mail message detector to allow the electronic mail message to go to the recipient.

Figure 20 shows a flowchart of an embodiment of embedding EMOs. In 2001, an embedded mail object  
 40 may be associated with a unique electronic mail message. In 2003, the unique electronic mail message may be

transmitted to a recipient. In 2005, data from the recipient may be received utilizing the embedded mail object on a user level. In 2007, the received data may be directly retrieved from the unique electronic mail message.

Figure 21 shows a flowchart of an embodiment of using URLs. In 2101, a uniform resource locator may be generated for a web document, the uniform resource locator including a classification identifier associated with a class. In 2103, the uniform resource locator may be transmitted to a recipient. In 2105, a request for the web document including the uniform resource locator may be received from the recipient. In 2107, the class may be identified utilizing the classification identifier.

Figure 22 shows a flowchart of an embodiment of monitoring subject lines for electronic mail messages with EMOs. In 2201, an electronic mail message may be transmitted including a first subject line to each of a first plurality of recipients. In 2203, the electronic mail message may be transmitted including a second subject line to each of a second plurality of recipients. In 2205, an attribute of the transmitted electronic mail messages may be monitored. In 2207, one of the first subject line and the second subject line may be automatically associated with the electronic mail message and the electronic mail message may be transmitted to each of a third plurality of recipients in response to monitoring an attribute of the transmitted electronic mail messages.

Figure 23 shows a flowchart of an embodiment of attaching secure documents to electronic mail messages with EMOs. In 2301, a plurality of electronic mail messages may be generated. In 2303, a unique secure document may be automatically attached to each of the plurality of electronic mail messages. In 2305, each of the plurality of electronic mail messages may be transmitted to a corresponding one of a plurality of recipients.

Figure 24 shows a flowchart of an embodiment of incorporating database information in an electronic mail message with a EMO. In 2401, a data element may be selected from a plurality of data elements within a database. In 2403, a database view may be generated based on the selected data element. In 2405, a plurality of electronic mail messages may be generated. In 2407, data may be fetched from the database view. In 2409, the fetched data may be incorporated from the database view into the plurality of electronic mail messages.

Figure 25 shows a flowchart of an embodiment using a remote client system and a local server. In 2501, an image data file may be transmitted from a remote client data processing system to a local server data processing system. In 2503, the image data file may be stored within the local server data processing system. In 2505, the image data file may be incorporated within a plurality of electronic mail messages. In 2507, the plurality of electronic mail messages may be transmitted utilizing the local server data processing system.

Figure 26 shows a flowchart of an embodiment of using structured query language with EMOs. In 2601, a natural language query may be constructed by example statement including a plurality of fields. In 2603, a plurality of recipients may be identified utilizing the natural language query by example statement. In 2605, the natural language query may be converted by example statement to a structured query language statement. In 2607, a data message and the structured query language statement may be transmitted to a server data processing system. In 2609, the structured query language statement may be executed at the server data processing system. In 2611, an electronic mail message for each of a plurality of recipients may be generated at the server data processing system in response to executing the structured query language statement.

Various embodiments may further include receiving or storing instructions and/or information implemented in accordance with the foregoing description upon a carrier medium. Suitable carrier media may include storage media or memory media such as magnetic or optical media, e.g., disk or CD-ROM, as well as transmission media or

signals such as electrical, electromagnetic, or digital signals, conveyed via a communication medium such as a network and/or a wireless link

Further modifications and alternative embodiments of various aspects of the invention may be apparent to those skilled in the art in view of this description. Accordingly, this description is to be construed as illustrative only and is for the purpose of teaching those skilled in the art the general manner of carrying out the invention. It is to be understood that the forms of the invention shown and described herein are to be taken as the presently preferred embodiments. Elements and materials may be substituted for those illustrated and described herein, parts and processes may be reversed, and certain features of the invention may be utilized independently, all as would be apparent to one skilled in the art after having the benefit of this description of the invention. Changes may be made in the elements described herein without departing from the spirit and scope of the invention as described in the following claims.



**What is claimed is:**

1. A method comprising:  
associating an embedded mail object with a unique electronic mail message;  
5 transmitting the unique electronic mail message to a recipient;  
receiving data from the recipient utilizing the embedded mail object; and  
retrieving the received data directly from the unique electronic mail message.
2. The method of claim 1, wherein the receiving data from the recipient and retrieving the received data is  
10 performed in a secure manner.
3. The method of claim 1, wherein the electronic mail message further includes a header, wherein the header  
includes information showing how a recipient agreed to be on a list used to send the electronic mail messages.
- 15 4. The method of claim 1, wherein the received data is further transmitted to another computer system  
including a customer relationship management (CRM) system, a call center, a credit scoring system, and a legacy  
system.
5. The method of claim 1, further comprising:  
20 recognizing an incoming electronic mail message sent as a response to the unique electronic mail message,  
and  
archiving the incoming electronic mail message.
6. The method of claim 5, further comprising:  
25 reacting in a predetermined manner to the received incoming electronic mail message.
7. The method of claim 1, further comprising:  
analyzing received data; and  
transmitting new unique electronic mail messages in response to the analyzing received data.  
30
8. The method of claim 1, further comprising:  
sending multiple unique electronic mail messages over a predetermined time period.
9. The method of claim 1, wherein if the recipient of the unique electronic mail message is a text only  
35 recipient, the unique electronic mail message includes a link to an online website to allow the recipient to view the  
unique electronic mail message.

10. The method of claim 1, wherein the embedded electronic mail message object includes a newsletter, a newsflash, a customer survey, a customer quiz, a customer vote, a customer point of view, a customer promotion, or a customer bill.
- 5 11. The method of claim 1, wherein the embedded mail object is in an Extensible Markup Language (XML).
12. The method of claim 1, further comprising developing a recipient profile based on the received data.
13. The method of claim 1, further comprising maintaining a recipient database with information used to  
10 transmit the unique electronic mail messages, wherein the information includes a recipient domain, a recipient local part, recipient subscription date, recipient expiration date, or recipient navigator name.
14. The method of claim 1, further comprising a user selects a subset of recipients to transmit the unique electronic mail message to using selective criteria on recipient information.
- 15 15. The method of claim 1, wherein the received data consists whether the recipient clicked on the unique electronic mail message or whether the recipient opened the unique electronic mail message.
16. The method of claim 1, wherein the user can view the received data.
- 20 17. The method of claim 1, wherein the user defines criteria to use in selecting recipients to transmit the unique electronic mail messages to.
18. The method of claim 17, wherein the criteria is in structured query language (SQL).
- 25 19. The method of claim 1, wherein the embedded mail object includes information about a recipient retrieved from a user database.
20. The method of claim 1, wherein data received is selected from a group consisting of a date the electronic  
30 mail message was opened, a time the electronic mail message was opened, a location the electronic mail message was opened, whether the electronic mail message was forwarded, and an engine version of the recipient's browser.
21. A method comprising:  
generating a uniform resource locator for a web document, the uniform resource locator including a  
classification identifier associated with a class;  
35 transmitting the uniform resource locator to a recipient;  
receiving a request for the web document including the uniform resource locator from the recipient; and  
identifying the class utilizing the classification identifier.

22. The method of claim 21, wherein identifying the class further comprises allowing the user to retarget an electronic mail message containing a EMO.
23. The method of claim 21, wherein identifying the class further comprises allowing the user to send new  
5 messages dependent on predefined customer behavior.
24. The method of claim 21, wherein the class comprises two or more levels of the classification identifiers.
25. A method comprising:  
transmitting an electronic mail message including a first subject line to each of a first plurality of recipients;  
10 transmitting the electronic mail message including a second subject line to each of a second plurality of recipients;  
monitoring an attribute of the transmitted electronic mail messages; and  
automatically associating one of the first subject line and the second subject line with the electronic mail message and transmitting the electronic mail message to each of a third plurality of recipients in response to  
15 monitoring an attribute of the transmitted electronic mail messages.
26. The method of claim 25, wherein the attribute comprises the number of recipients opening the electronic mail message.
- 20 27. The method of claim 25, wherein the electronic mail object comprises an embedded mail object.
28. A method comprising:  
generating a plurality of electronic mail messages;  
automatically attaching a unique secure document to each of the plurality of electronic mail messages; and  
25 transmitting each of the plurality of electronic mail messages to a corresponding one of a plurality of recipients.
29. The method of claim 28, wherein the secure document includes an embedded mail object.
- 30 30. The method of claim 28, wherein the secure document is in a portable document format (PDF).
31. The method of claim 28, wherein the secure document enables a secure transaction between the recipient and the user.
- 35 32. The method of claim 28, wherein the secure document comprises an encryption key.
33. The method of claim 28, wherein the secure document comprises a credit card statement.

34. The method of claim 28, wherein the secure document includes information selected from a group consisting of personal information, financial information, and medical information.
35. A method comprising:  
5 selecting a data element from a plurality of data elements within a database;  
generating a database view based on the selected data element;  
generating a plurality of electronic mail messages;  
fetching data from the database view; and  
incorporating the fetched data from the database view into the plurality of electronic mail messages.
- 10 36. The method of claim 35, wherein each electronic message in the plurality of electronic messages comprises an embedded mail object.
37. The method of claim 35, wherein the fetched data is incorporated to personalize the electronic mail message.
- 15 38. The method of claim 35, wherein the fetched data is incorporated into the electronic mail message in an embedded mail object.
39. A method comprising:  
transmitting an image data file from a remote client data processing system to a local server data processing  
20 system;  
storing the image data file within the local server data processing system;  
incorporating the image data file within a plurality of electronic mail messages; and  
transmitting the plurality of electronic mail messages utilizing the local server data processing system.
- 25 40. The method of claim 39, wherein the image data file is incorporated into an embedded mail object in each of the electronic mail messages in the plurality of electronic mail messages.
41. The method of claim 39, wherein each electronic mail message in the plurality of electronic mail messages comprises a link, wherein if a recipient of the electronic mail message cannot view the image file, the link refers the  
30 recipient to an online website to view the electronic mail message.
42. The method of claim 39, wherein the image file is selected from a group consisting of Moving Picture Experts Group (MPEG) format files, graphics interchange format (GIF) files, Joint Photographic Experts Group (JPEG) format files, and tagged image file format (TIFF).

35

43. A method comprising:  
constructing a natural language query by example statement including a plurality of fields;  
identifying a plurality of recipients utilizing the natural language query by example statement;  
converting the natural language query by example statement to a structured query language statement;  
5 transmitting a data message and the structured query language statement to a server data processing system;  
executing the structured query language statement at the server data processing system; and  
generating an electronic mail message for each of a plurality of recipients at the server data processing  
system in response to executing the structured query language statement.
- 10 44. The method of claim 43, wherein the electronic mail message comprises an embedded mail message.
45. The method of claim 43, wherein the structured query language statement identifies a group of recipients  
according to recipient information stored on a user database.
- 15 46. A system, comprising:  
one or more processors;  
a memory coupled to the one or more processors to store program instructions executable to implement a  
server;  
wherein the server is configured to:  
20 associate an embedded mail object with a unique electronic mail message;  
transmit the unique electronic mail message to a recipient;  
receive data from the recipient utilizing the embedded mail object; and  
retrieve the received data directly from the unique electronic mail message.
- 25 47. The system of claim 46, wherein the server is further configured to receive data from the recipient and  
retrieve the received data in a secure manner.
48. The system of claim 46, wherein the electronic mail message further includes a header, wherein the header  
includes information showing how a recipient agreed to be on a list used to send the electronic mail messages.
- 30 49. The system of claim 46, wherein the received data is further transmitted to another computer system  
including a customer relationship management (CRM) system, a call center, a credit scoring system, and a legacy  
system.
- 35 50. The system of claim 46, wherein the server is further configured to:  
recognize an incoming electronic mail message sent as a response to the unique electronic mail message,  
and  
archive the incoming electronic mail message.
- 40

51. The system of claim 50, wherein the server is further configured to:  
reacte in a predetermined manner to the received incoming electronic mail message.
52. The system of claim 46, wherein the server is further configured to:  
5 analyze received data; and  
transmit new unique electronic mail messages in response to the analyzing received data.
53. The system of claim 46, wherein the server is further configured to:  
send multiple unique electronic mail messages over a predetermined time period.
- 10 54. The system of claim 46, wherein if the recipient of the unique electronic mail message is a text only  
recipient, the unique electronic mail message includes a link to an online website to allow the recipient to view the  
unique electronic mail message.
- 15 55. The system of claim 46, wherein the embedded electronic mail message object includes a newsletter, a  
newsflash, a customer survey, a customer quiz, a customer vote, a customer point of view, a customer promotion, or  
a customer bill.
56. The system of claim 46, wherein the embedded mail object is in an Extensible Markup Language (XML).
- 20 57. The system of claim 46, wherein the server is further configured to develop a recipient profile based on the  
received data.
58. The system of claim 46, wherein the server is further configured to maintain a recipient database with  
25 information used to transmit the unique electronic mail messages, wherein the information includes a recipient  
domain, a recipient local part, recipient subscription date, recipient expiration date, or recipient navigator name.
59. The system of claim 46, further comprising a user selects a subset of recipients to transmit the unique  
electronic mail message to using selective criteria on recipient information.
- 30 60. The system of claim 46, wherein the received data consists whether the recipient clicked on the unique  
electronic mail message or whether the recipient opened the unique electronic mail message.
61. The system of claim 46, wherein the user can view the received data.
- 35 62. The system of claim 46, wherein the user defines criteria to use in selecting recipients to transmit the  
unique electronic mail messages to.
63. The system of claim 62, wherein the criteria is in structured query language (SQL).
- 40

64. The system of claim 46, wherein the embedded mail object includes information about a recipient retrieved from a user database.

65. The system of claim 46, wherein data received is selected from a group consisting of a date the electronic mail message was opened, a time the electronic mail message was opened, a location the electronic mail message was opened, whether the electronic mail message was forwarded, and an engine version of the recipient's browser.

66. A carrier medium comprising program instructions, wherein the program instructions are computer-executable to implement a method comprising:

associating an embedded mail object with a unique electronic mail message;  
transmitting the unique electronic mail message to a recipient;  
receiving data from the recipient utilizing the embedded mail object on a user level; and  
retrieving the received data directly from the unique electronic mail message.

67. The carrier medium of claim 66, wherein receiving data from the recipient and retrieving the received data is performed in a secure manner.

68. The carrier medium of claim 66, wherein the electronic mail message further includes a header, wherein the header includes information showing how a recipient agreed to be on a list used to send the electronic mail messages.

69. The carrier medium of claim 66, wherein the received data is further transmitted to another computer system including a customer relationship management (CRM) system, a call center, a credit scoring system, and a legacy system.

70. The carrier medium of claim 66, wherein the program instructions are further computer executable to implement a method comprising:

recognizing an incoming electronic mail message sent as a response to the unique electronic mail message,  
and  
archiving the incoming electronic mail message.

71. The carrier medium of claim 70, wherein the program instructions are further computer executable to implement a method comprising:

reacting in a predetermined manner to the received incoming electronic mail message.

72. The carrier medium of claim 66, wherein the program instructions are further computer executable to implement a method comprising:

analyzing received data; and  
transmitting new unique electronic mail messages in response to the analyzing received data.

73. The carrier medium of claim 66, wherein the program instructions are further computer executable to implement a method comprising:

    sending multiple unique electronic mail messages over a predetermined time period.

5 74. The carrier medium of claim 66, wherein if the recipient of the unique electronic mail message is a text only recipient, the unique electronic mail message includes a link to an online website to allow the recipient to view the unique electronic mail message.

75. The carrier medium of claim 66, wherein the embedded electronic mail message object includes a  
10 newsletter, a newsflash, a customer survey, a customer quiz, a customer vote, a customer point of view, a customer promotion, or a customer bill.

76. The carrier medium of claim 66, wherein the embedded mail object is in an Extensible Markup Language (XML).  
15

77. The carrier medium of claim 66, wherein the program instructions are further computer executable to implement a method comprising developing a recipient profile based on the received data.

78. The carrier medium of claim 66, wherein the program instructions are further computer executable to  
20 implement a method comprising maintaining a recipient database with information used to transmit the unique electronic mail messages, wherein the information includes a recipient domain, a recipient local part, recipient subscription date, recipient expiration date, or recipient navigator name.

79. The carrier medium of claim 66, wherein a user selects a subset of recipients to transmit the unique  
25 electronic mail message to using selective criteria on recipient information.

80. The carrier medium of claim 66, wherein the received data consists whether the recipient clicked on the unique electronic mail message or whether the recipient opened the unique electronic mail message.

30 81. The carrier medium of claim 66, wherein the user can view the received data.

82. The carrier medium of claim 66, wherein the user defines criteria to use in selecting recipients to transmit the unique electronic mail messages to.

35 83. The carrier medium of claim 66, wherein the criteria is in structured query language (SQL).

84. The carrier medium of claim 66, wherein the embedded mail object includes information about a recipient retrieved from a user database.



85. The carrier medium of claim 66, wherein data received is selected from a group consisting of a date the electronic mail message was opened, a time the electronic mail message was opened, a location the electronic mail message was opened, whether the electronic mail message was forwarded, and an engine version of the recipient's browser.

5

86. A method comprising:  
associating an object with an electronic message; and  
receiving data related to the object from a recipient of the electronic message.

10

87. A system, comprising:  
one or more processors;  
a memory coupled to the one or more processors to store program instructions executable to implement a server;  
wherein the server is configured to:

15

associate an object with an electronic message; and  
receive data related to the object from a recipient of the electronic message.

88. A carrier medium comprising program instructions, wherein the program instructions are computer-executable to implement a method comprising:

20

associating an object with an electronic message; and  
receiving data related to the object from a recipient of the electronic message.

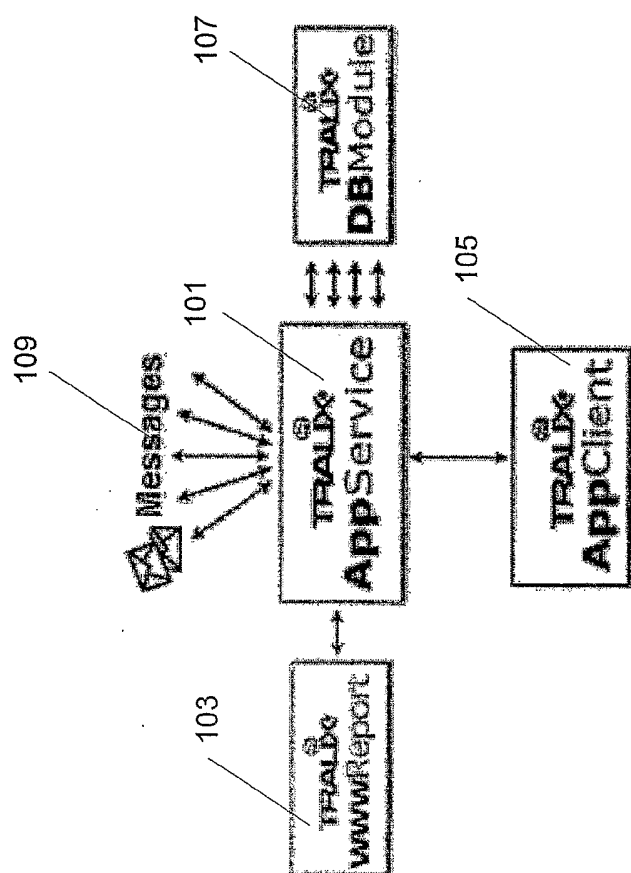


Figure 1

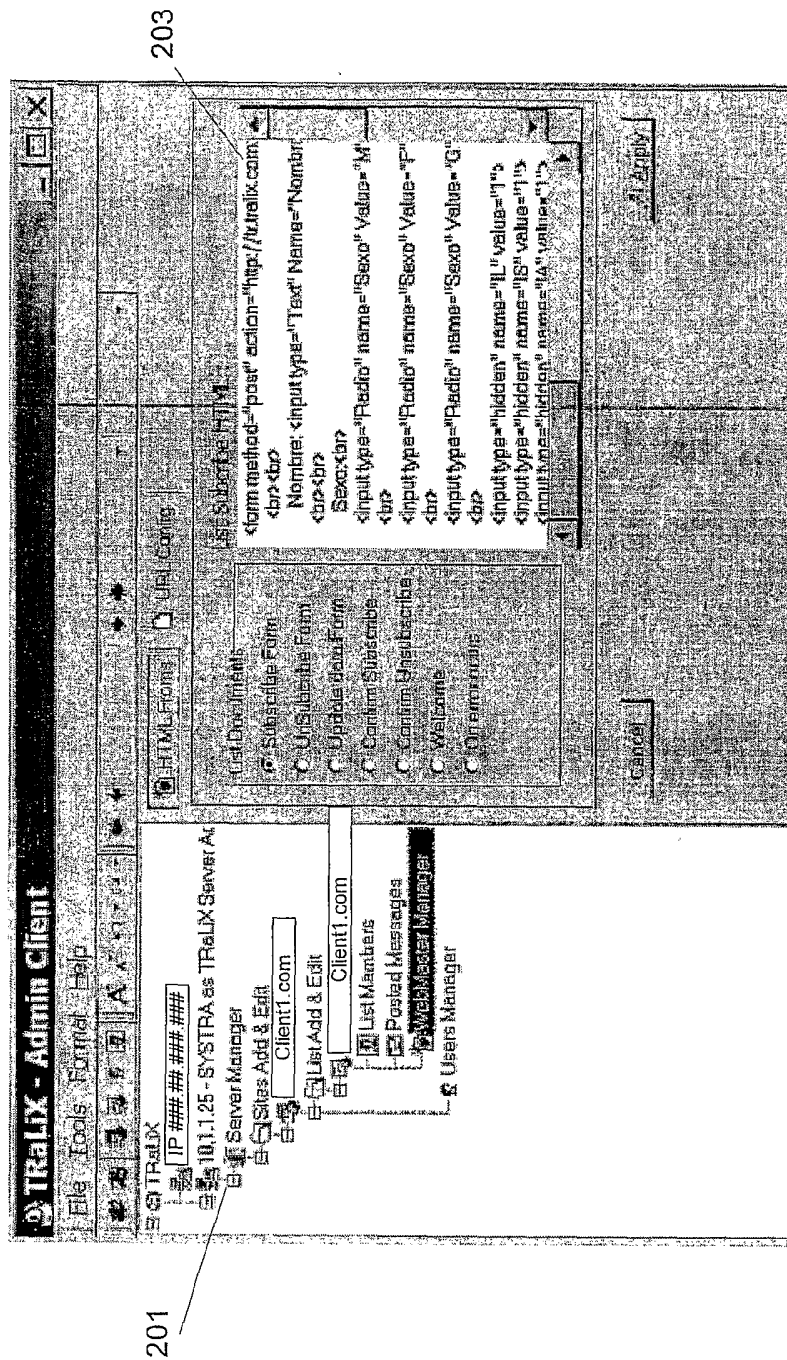


Figure 2

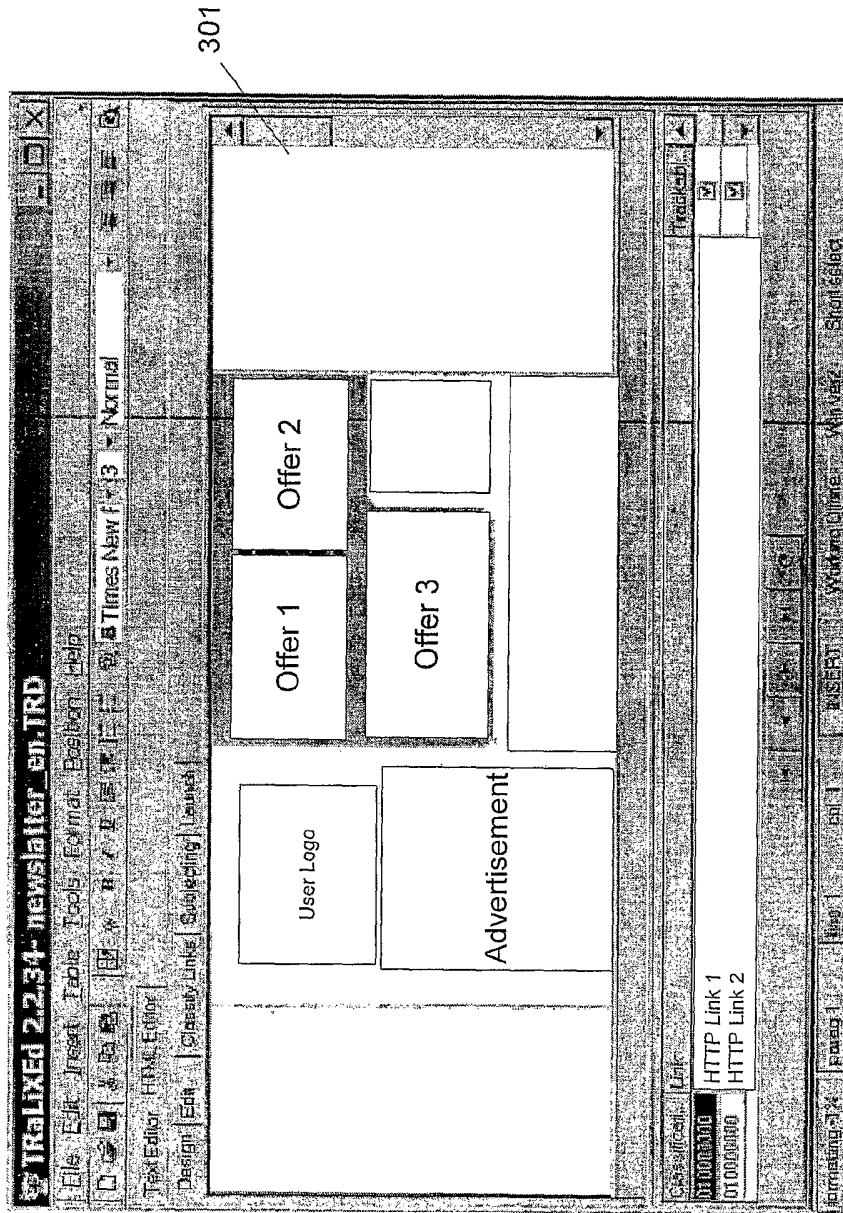
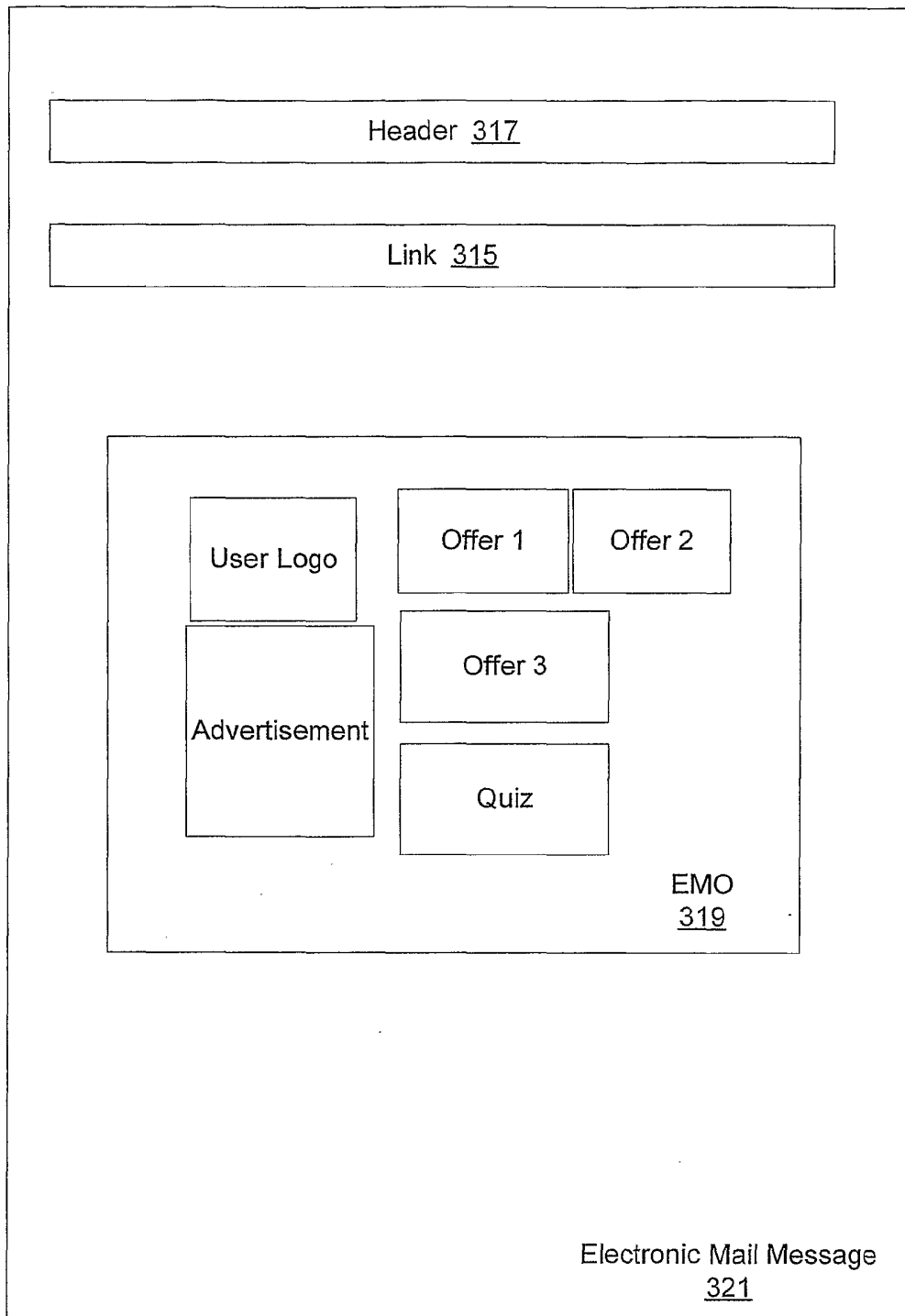


Figure 3



**Figure 3a**

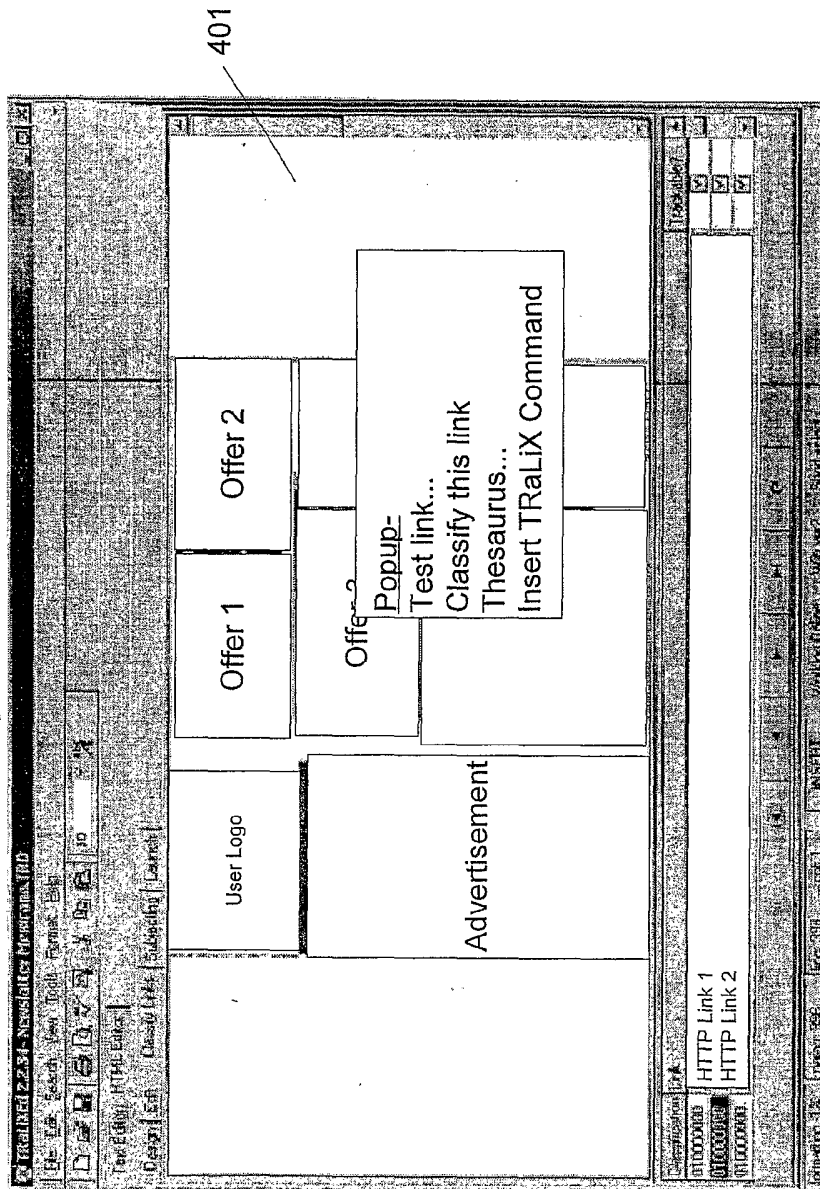


Figure 4

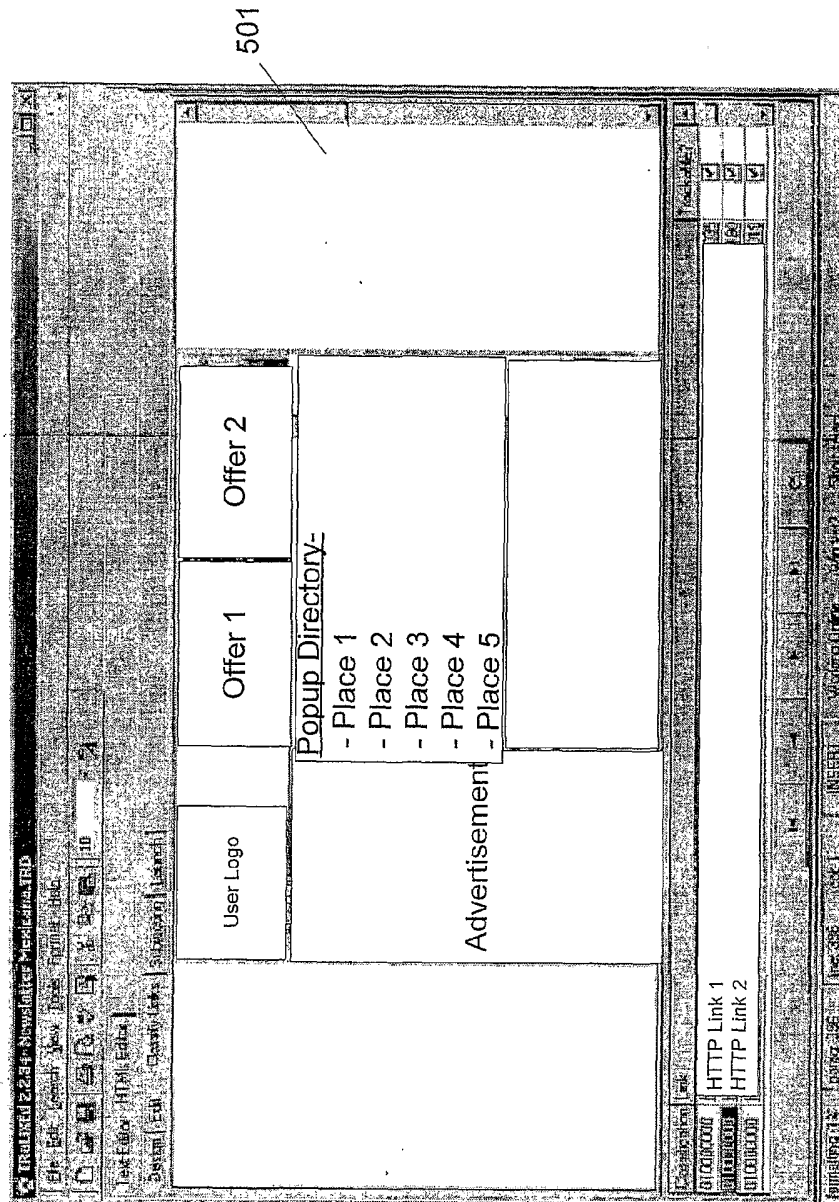


Figure 5

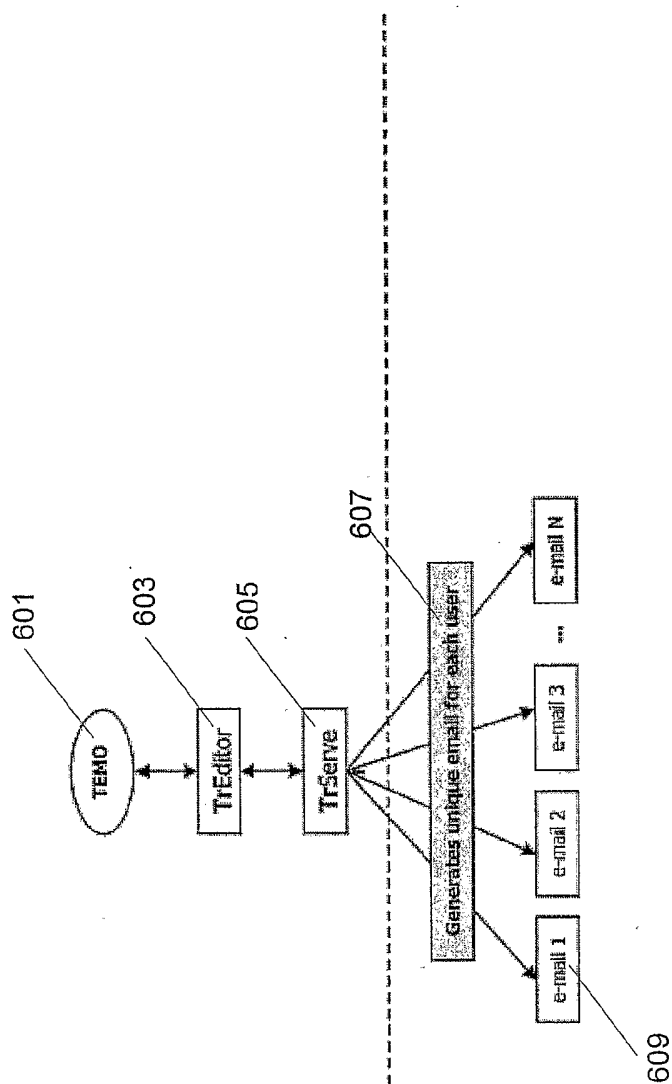


Figure 6



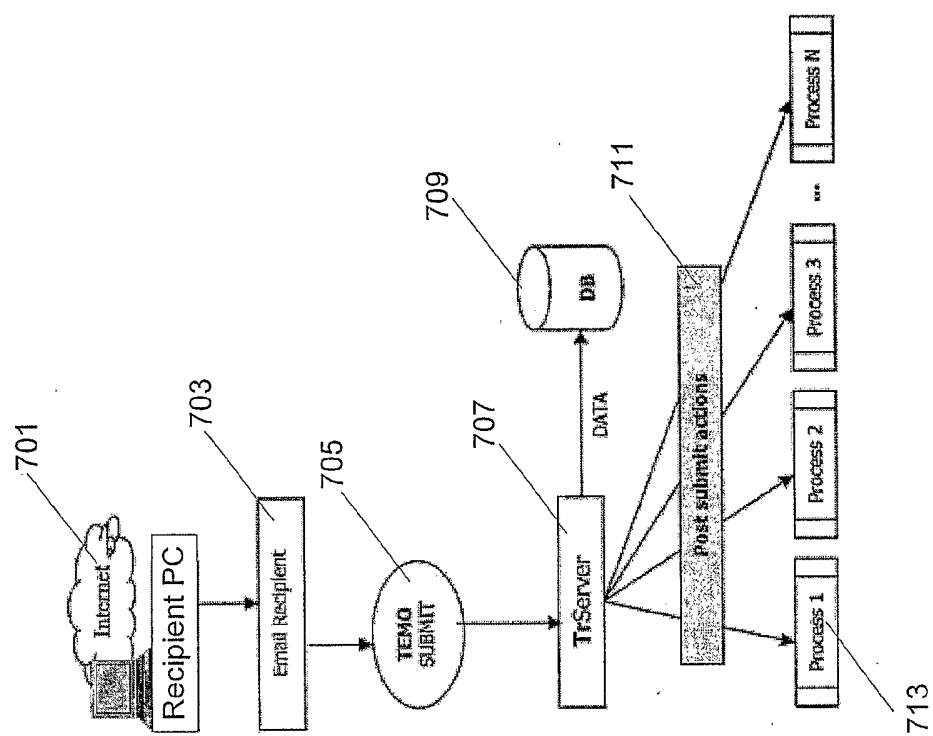
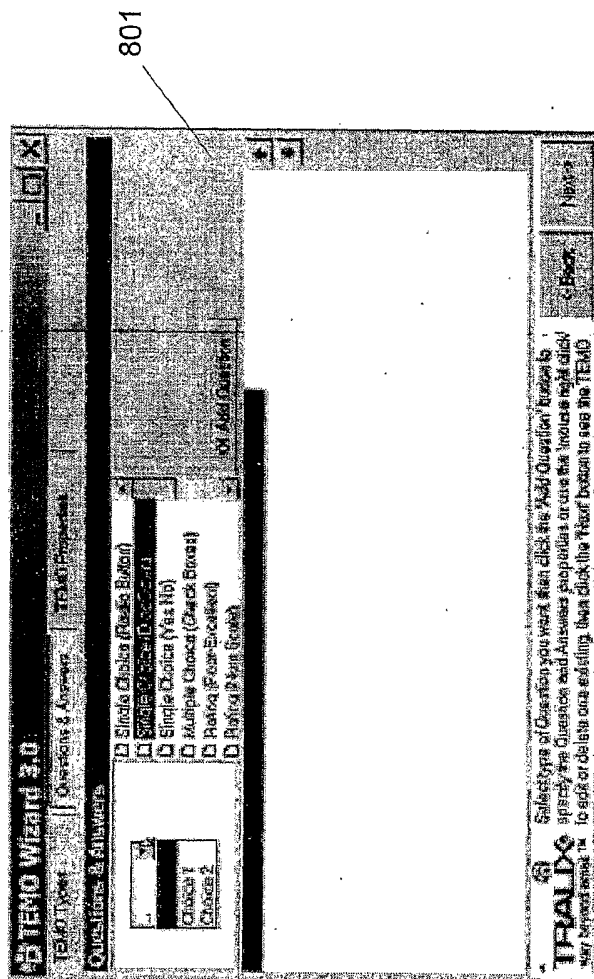


Figure 7



### Figure 8

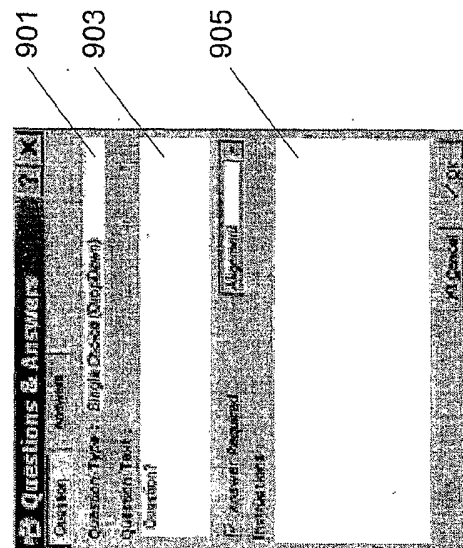


Figure 9



[illegible]

## Figure 11

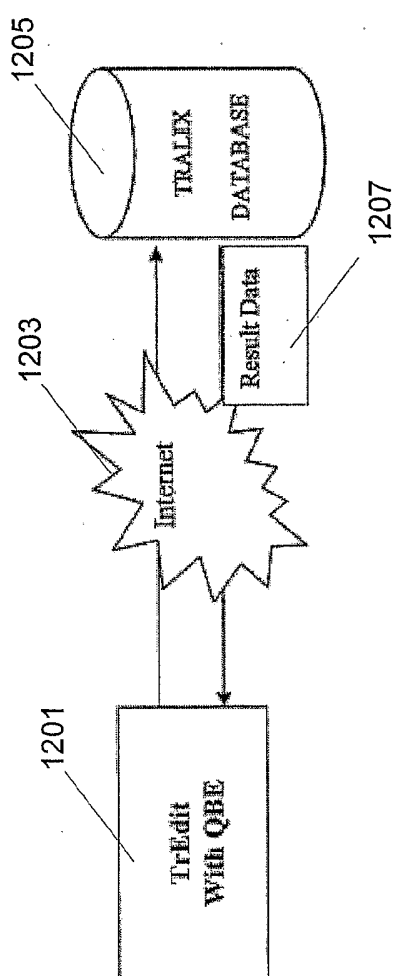


Figure 12

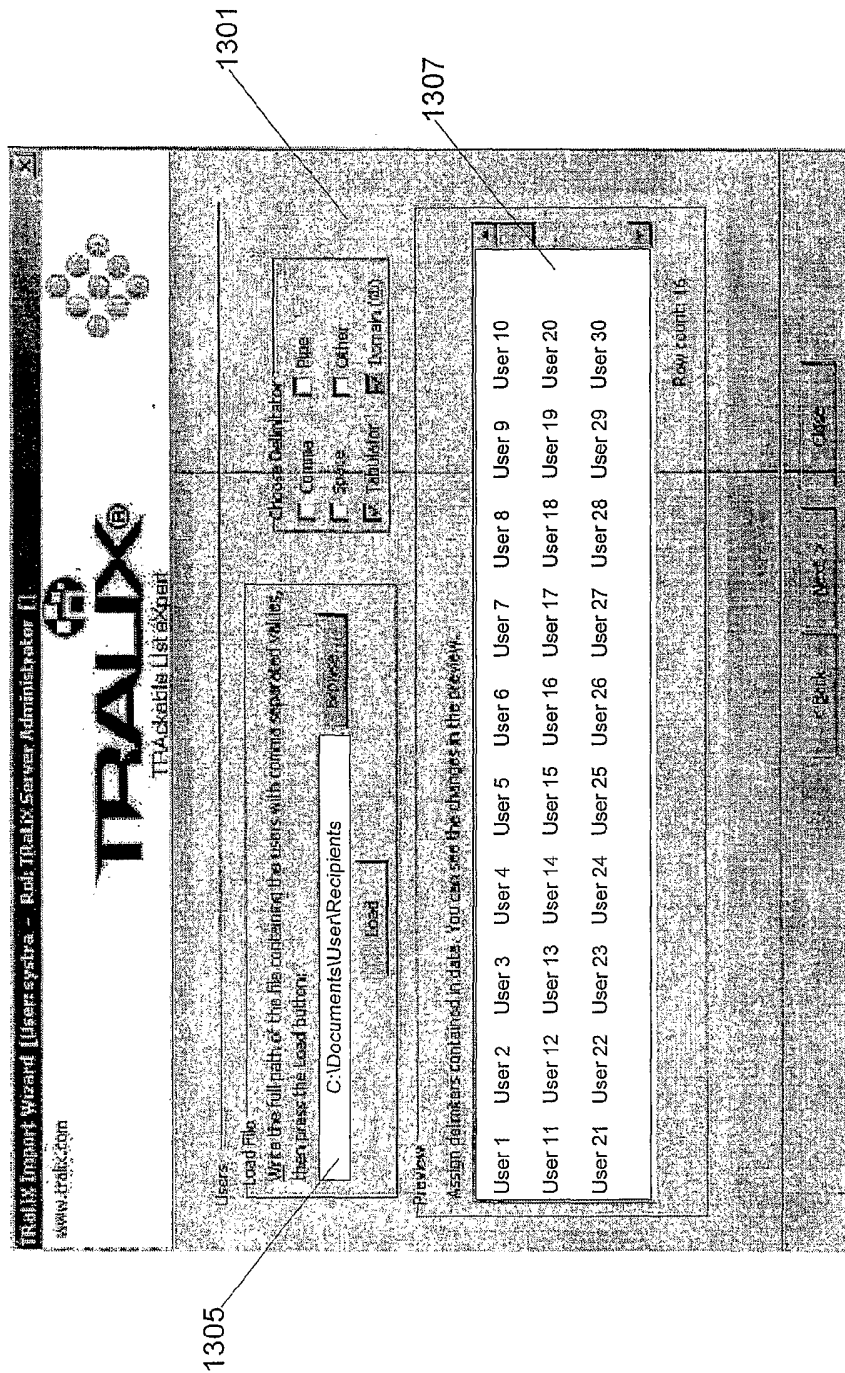


Figure 13

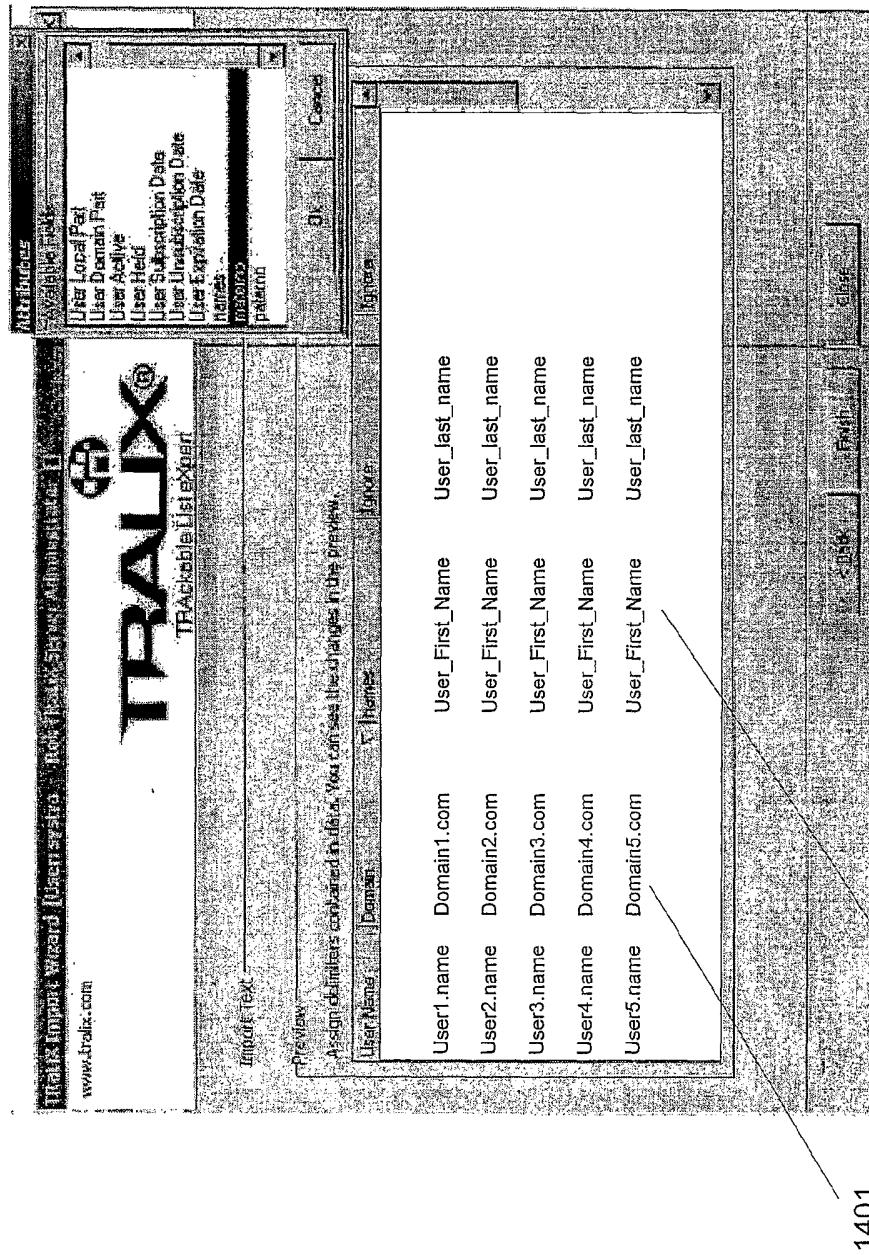


Figure 14



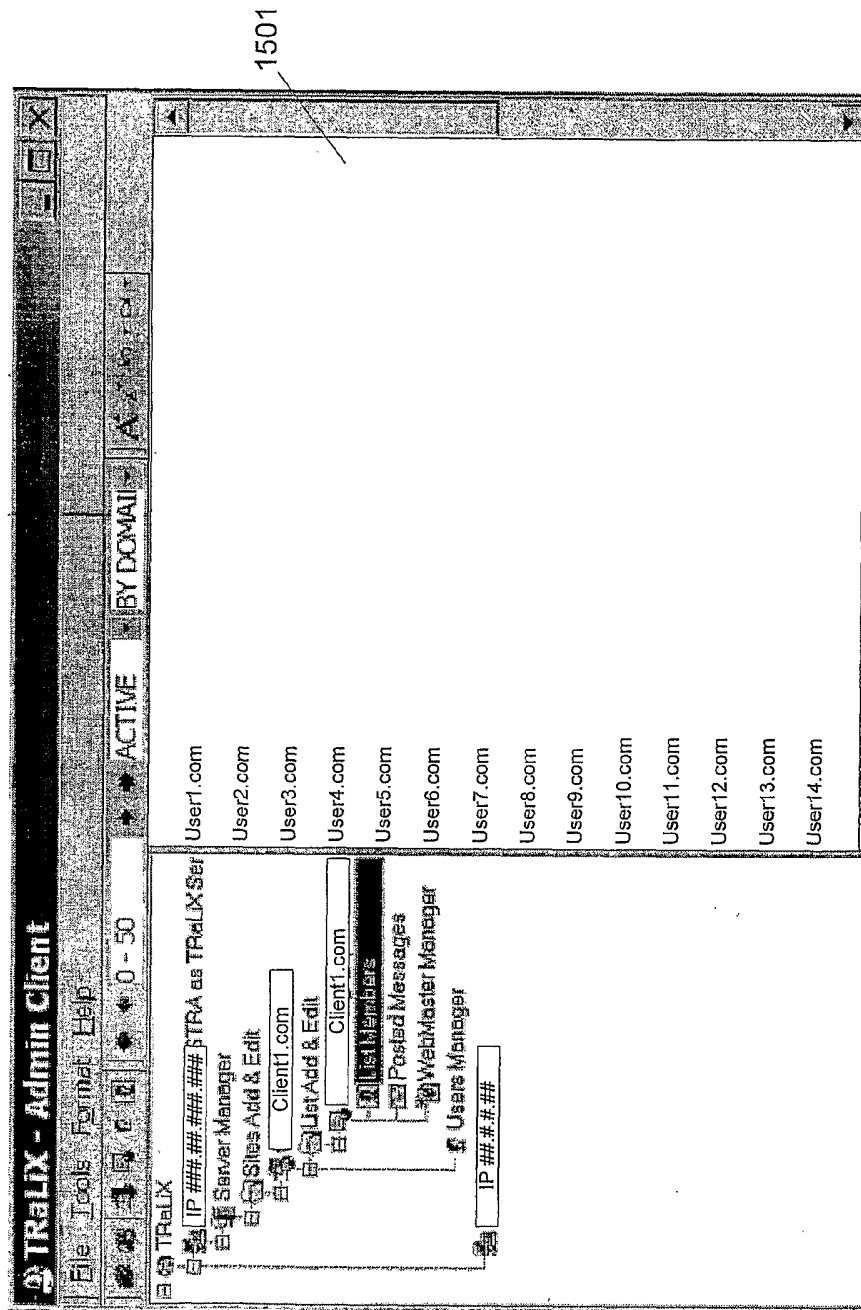


Figure 15



# Executive Report

October 22, 2001

Prepared for :

User 1

MESSAGES	
TOTAL SENT	8,005
DELIVERED	6,655
*TOTAL SENT	
*DELIVERED	

Total messages sent by TRALIX to your active list members. The Total Sent Messages are Messages Picked and Messages in Transit.

OPENS	
UNIQUE USERS	4,678
TOTAL OPENS	8,039
VIEWS PER USER	1.72
*USERS UNIQUE	
*TOTAL	

Total users that open the message one time at least. Each time a user can open your message one or more times.

RATIOS	
UNIQUE VIEWS	70.30 %
INTEREST RATIO	58.20 %
*UNIQUE VIEWS	
*INTEREST	

\*UNIQUE VIEWS: Ratio that views your message one time at least calculated between Total Messages Delivered vs. Opened Messages.  
\*INTEREST: Ratio that opens your message more than one time calculated by Total Opens vs. Unique Users.

The Executive Report empowers general managers, directors and executives to gain an in-depth understanding of your Mailing List offering a comprehensive and global view.



We certify that to the best of our knowledge the results presented in this document are accurate.

*Unhackable List Exports*

Figure 16

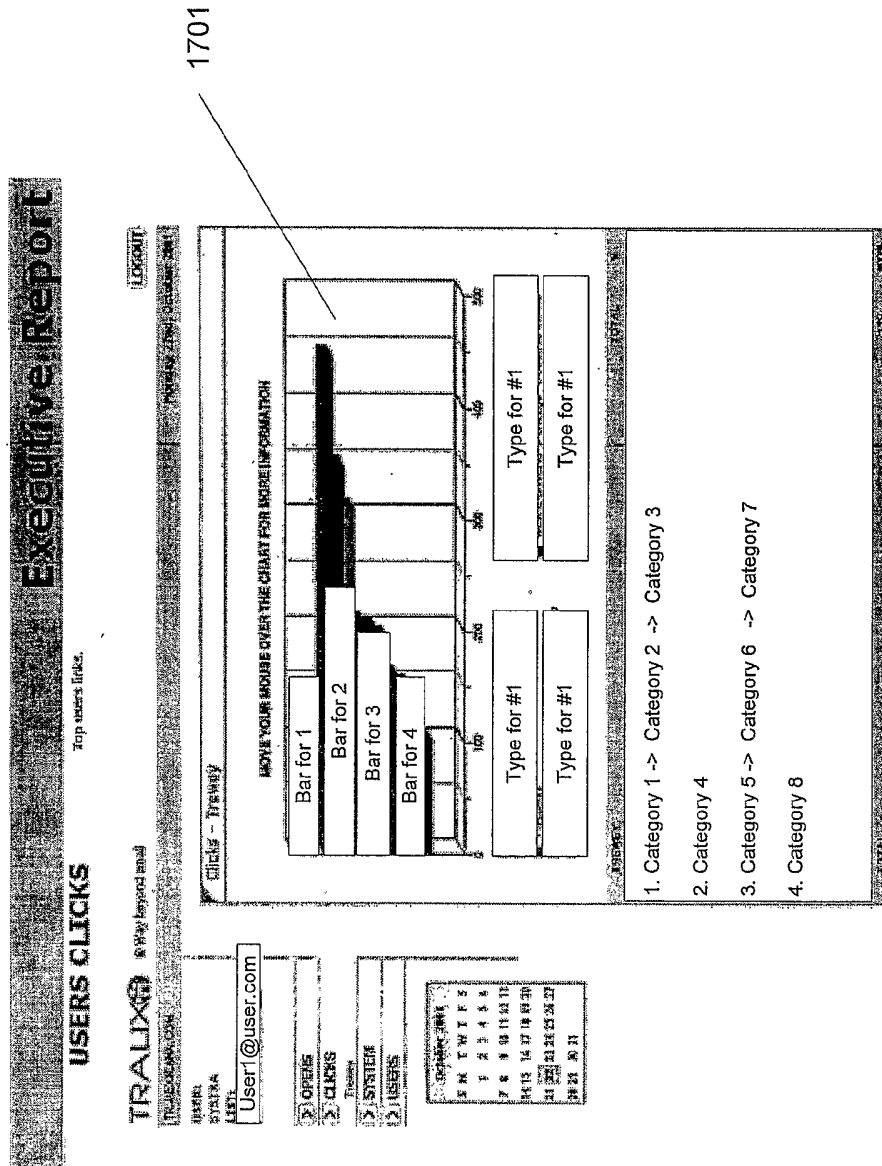


Figure 17

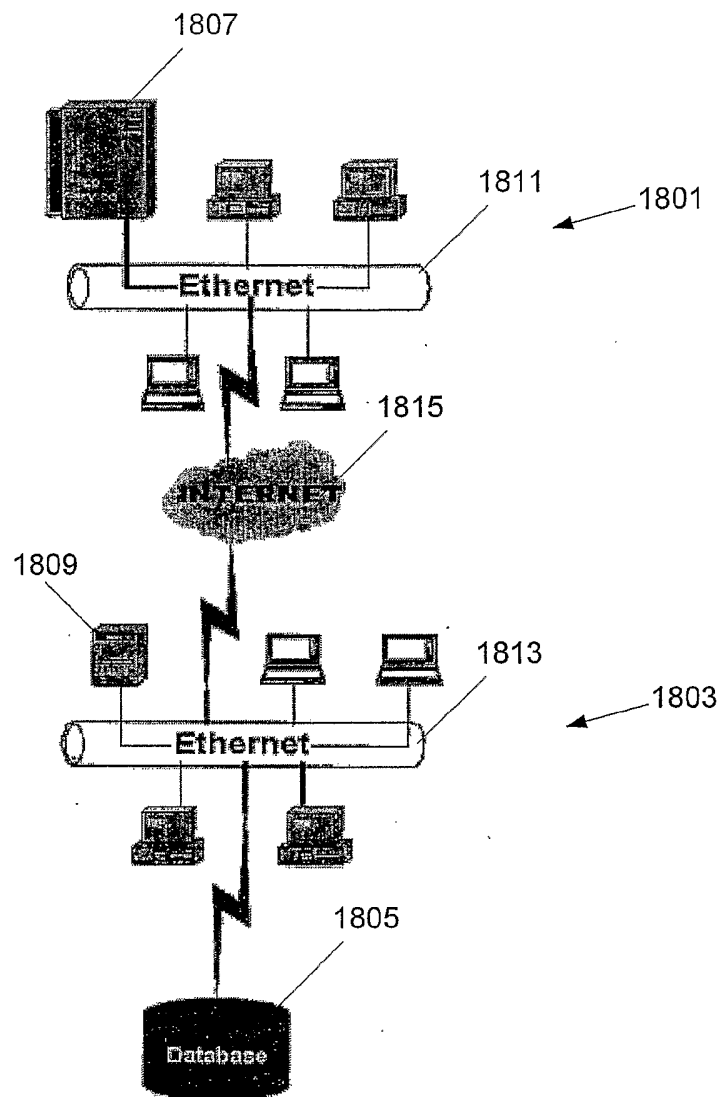


Figure 18

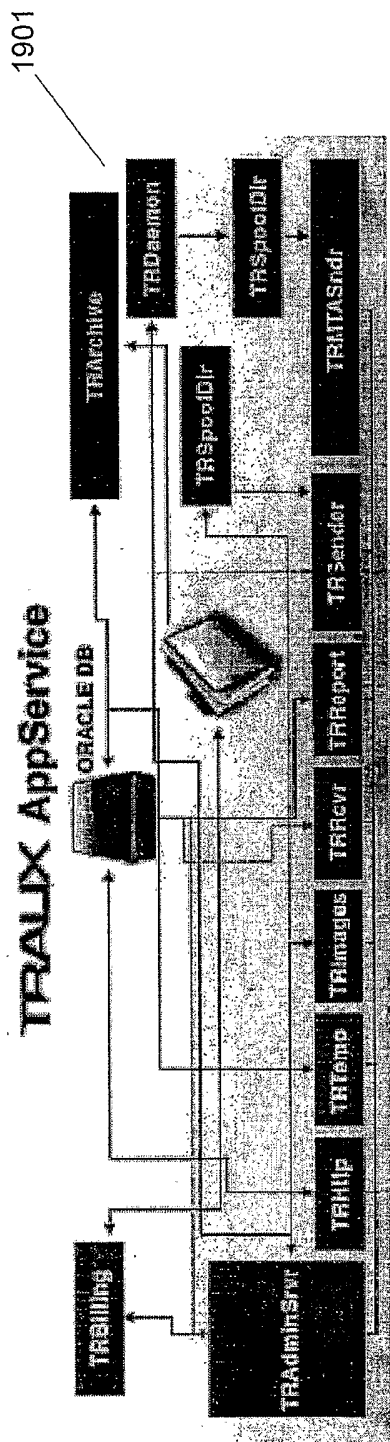
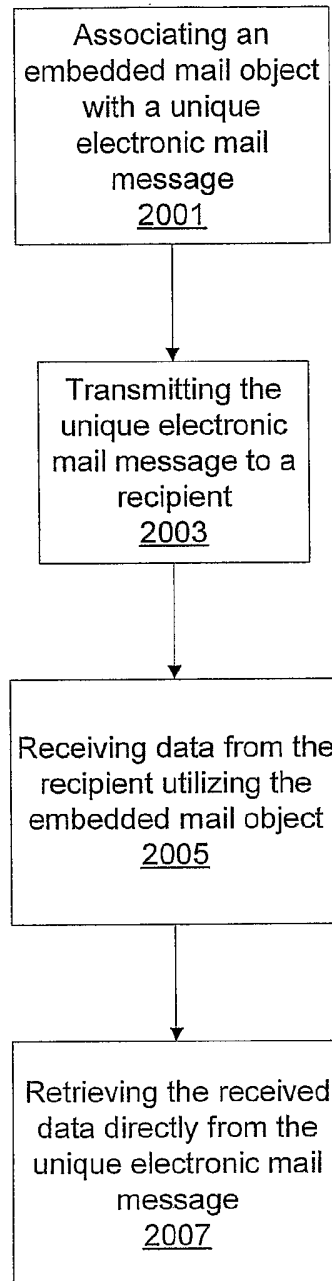
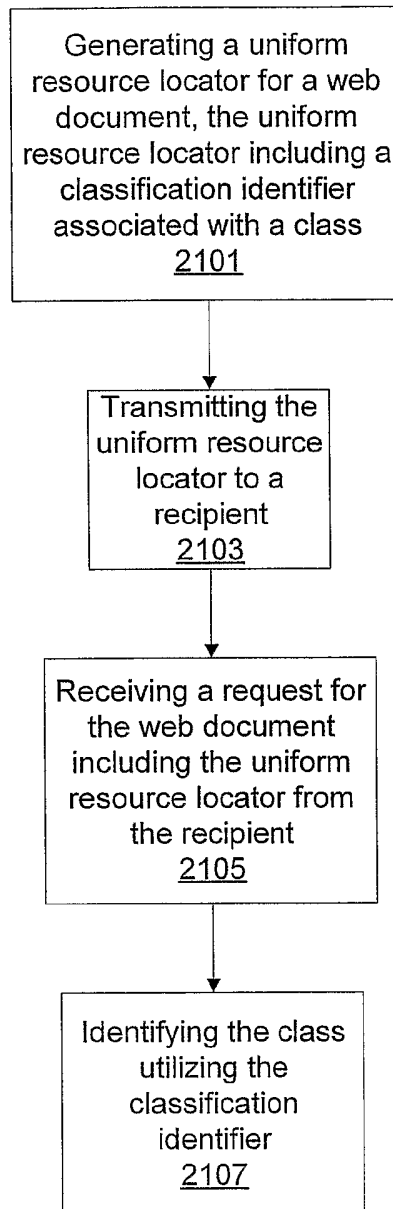
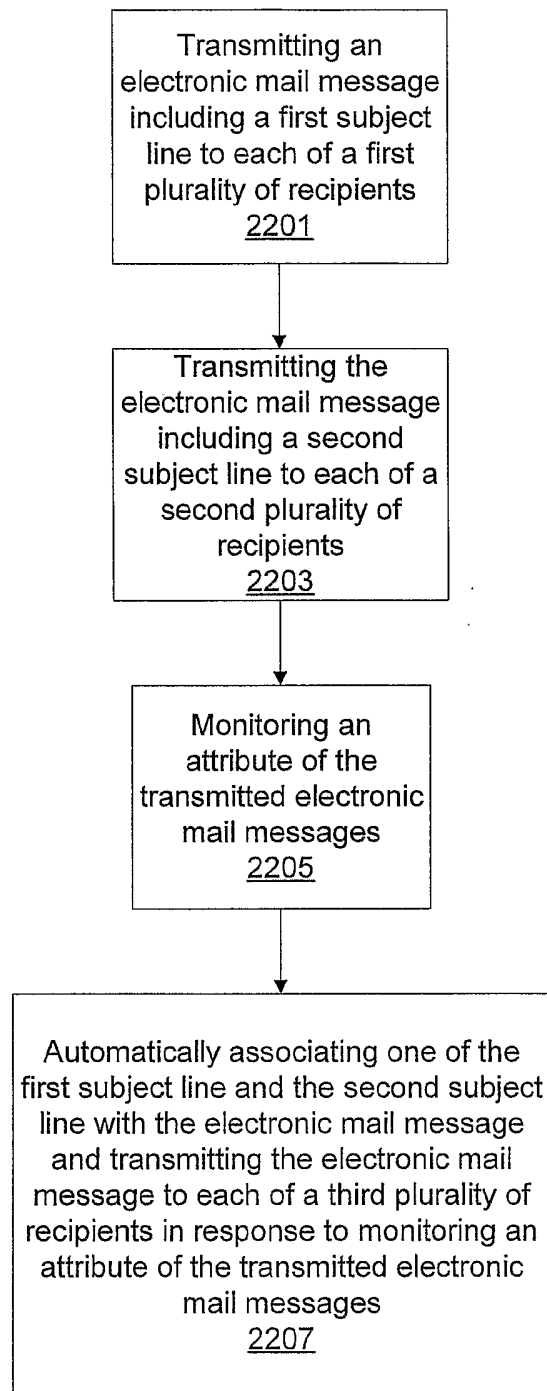


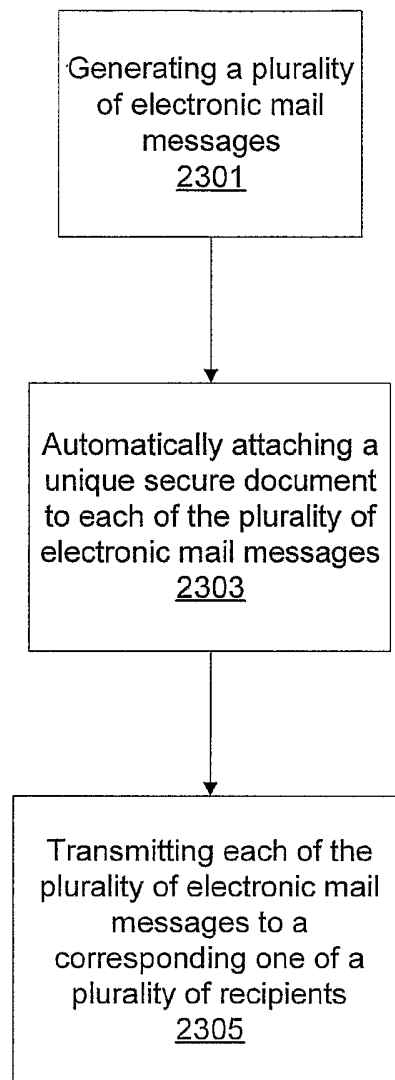
Figure 19

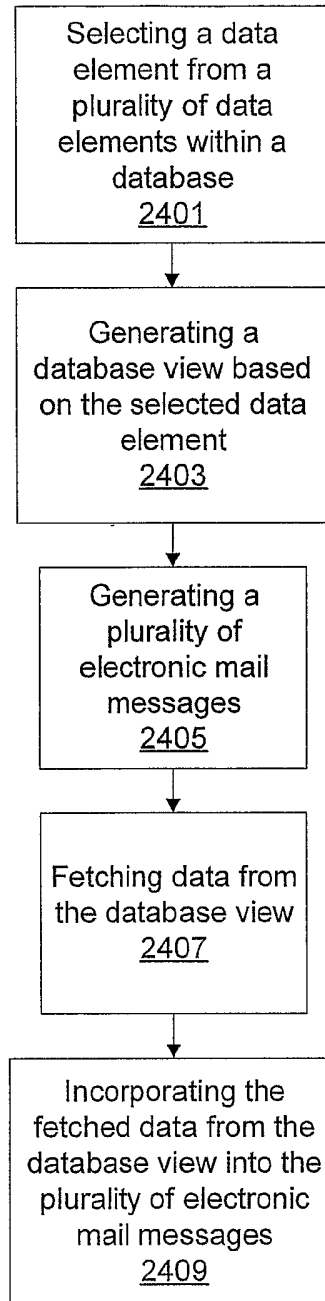
**Figure 20**

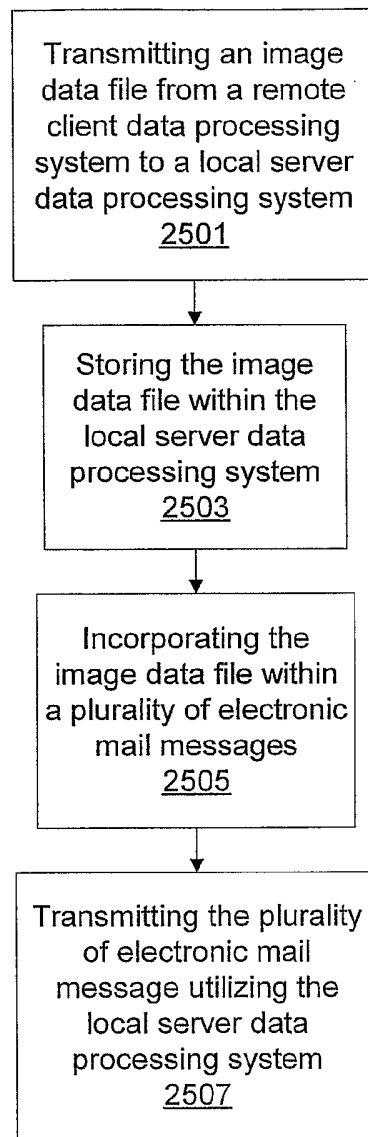
**Figure 21**

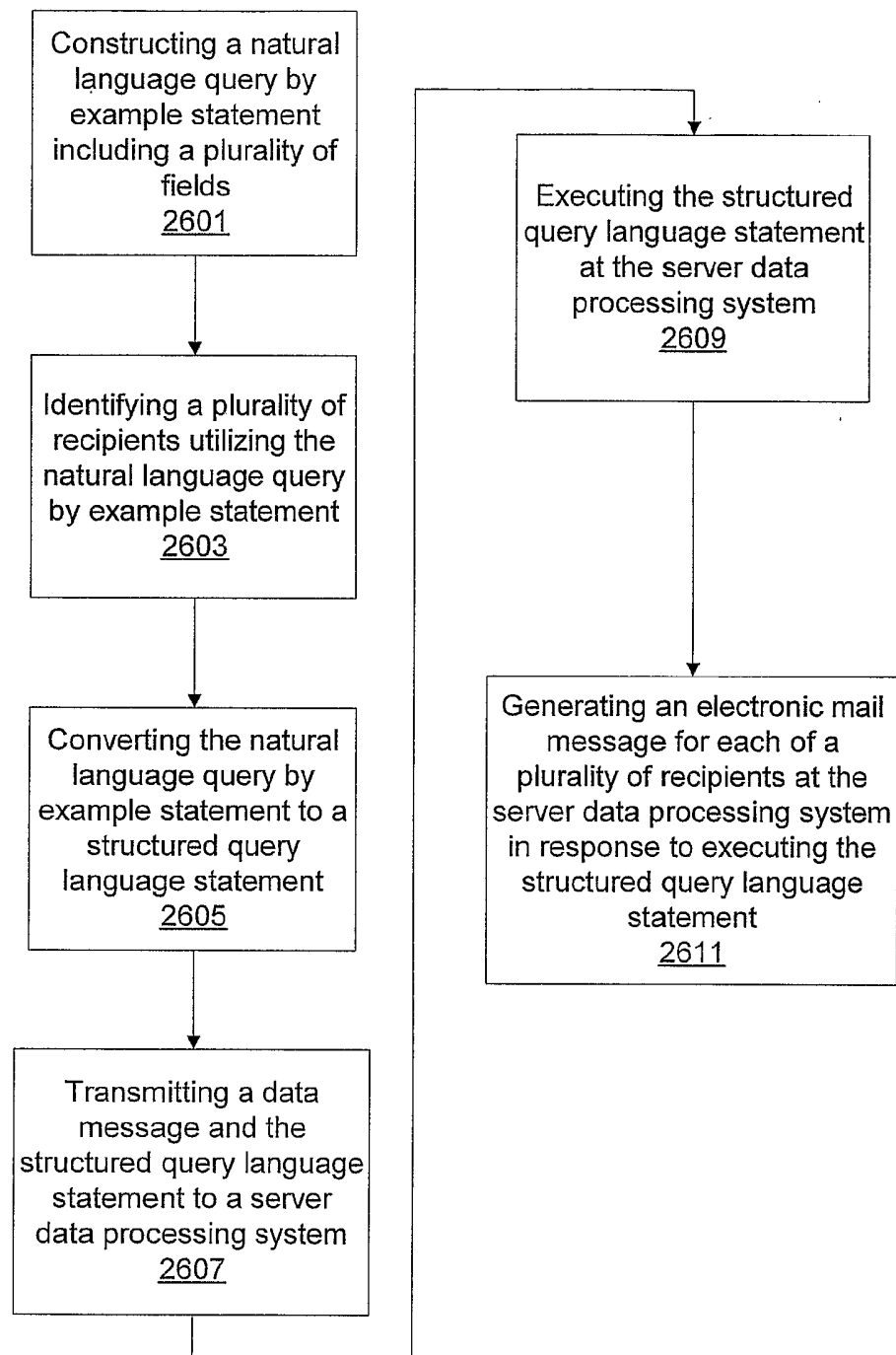
**Figure 22**



**Figure 23**

**Figure 24**

**Figure 25**

**Figure 26**

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/06139

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G06F 15/16  
US CL : 709/206, 207, 219

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

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
U.S. : 709/206, 207, 219

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)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 6,073,166 A (Forsen) 06 June 2000 (06.06.2000); abstract; Fig. 1-3; col. 1, lines 10-15, 57-61; col. 2, lines 20-45, 60-66; col. 3, lines 10-12, 20-60; col. 4, lines 4-10	1, 2, 5-8, 11, 20, 46, 47, 50-53, 56, 65-67, 70-73, 76, 85-88 ----- 3, 4, 9, 10, 12-19, 43-45, 48, 49, 54, 55, 57-64, 68, 69, 74, 75, 77-84
Y	US 5,781,901 A (KUZMA) 14 July 1998 (14.07.1998); abstract; Fig. 3-7	9, 54, 74
Y, E	US 6,539,375 B2 (KAWASAKI) 25 March 2003 (25.03.2003); abstract; Fig. 1-4; col. 1, lines 10-15, 20-35; col. 2, line 45 - col. 3, line 45; col. 5, line 50 - col. 6, line 22	10, 12, 13, 16-19, 43-45, 55, 57, 58, 61-64, 75, 77, 78, 81-84
Y	US 6,317,783 B1 (FREISHTAT et al.) 13 November 2001 (13.11.2001); abstract, Fig. 2, 3, 5-11; col. 3, lines 5-37	3, 4, 48, 49, 68, 69
Y, P	US 6,463,461 B1 (HANSON et al.) 08 October 2002 (08.10.2002); abstract, Fig. 1-3, 6	14, 59, 79



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"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
"E" earlier application or patent published on or after the international filing date	"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
"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)	"&" document member of the same patent family
"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	

Date of the actual completion of the international search 16 July 2003 (16.07.2003)	Date of mailing of the international search report <b>18 AUG 2003</b>
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703)305-3230	Authorized officer Rupal Dharia James R. Matthews Telephone No. (703) 305-3800

# INTERNATIONAL SEARCH REPORT

PCT/US03/06139

## C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6,314,454 B1 (WANG et al.) 06 November 2001 (06.11.2001); abstract; Fig. 8-10	15, 60, 80
Y	US 6,138,149 A (OHMURA) 24 October 2000 (24.10.2000); abstract; Fig. 1, 2, 5-8	20, 65, 85

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/06139

### Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

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

1. ☐ Claim Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claim Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claim Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

### Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:  
Please See Continuation Sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1-20 and 43-88

#### Remark on Protest

☐  
☐

- The additional search fees were accompanied by the applicant's protest.  
No protest accompanied the payment of additional search fees.

## INTERNATIONAL SEARCH REPORT

PCT/US03/06139

### BOX II. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I, claim(s) 1-20, 43-88, drawn to a method and system of placing an "embedded mail object" into an email before mailing, and of tracking the use of said object.

Group II, claim(s) 21-24, drawn to a method for generating class IDs and URLs so as to "retarget" messages with "embedded mail objects".

Group III, claim(s) 25-27, drawn to a method of determining the best subject line for a particular e-mail by tracking an "embedded mail object".

Group IV, claim(s) 28-34, drawn to a method of generating secure documents to be embedded into e-mails.

Group V, claim(s) 35-38, drawn to a method of using a database to modify "embedded mail objects".

Group VI, claim(s) 39-42, drawn to a method of using a gateway server to add "embedded mail objects" to e-mails at a later time.

The inventions listed as Groups I-VI do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the only feature present in any of these groups is the "embedded mail object", which the examiner considers well known in the art (i.e. as an attachment). As such, the "embedded mail object" is not considered the applicant's contribution over the prior art (see MPEP Appendix AI, Section 206 and Annex B), but rather the use, operation, monitoring and modification of these "embedded mail objects." Since each group performs the above activities on the objects in completely different ways, the examiner finds that the case lacks unity.