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(54) Title: ELECTRONIC ACCOUNT STATEMENT WITH EMBEDDED TAGS

(57) Abstract:

ELECTRONIC ACCOUNT STATEMENT WITH EMBEDDED TAGS

Field of the Invention

5 The present invention generally relates to computer information systems, and more particularly to user-interactive systems for integrating retail transaction data with merchant advertising information over computer networks, such as the Internet.

Description of Related Art

10 The practice of providing advertising information with other types of information is well established in the retail sales industry. For example, department stores, specialty shops, and mail-order businesses frequently include advertisements in credit card invoice mailings as a means of informing a diverse consumer population of various goods and services. In return, a credit card company may share a portion of the cost of the mailing with the merchant. This practice is also popular in other commercial areas such as television and radio, in which end users are tuned to a continuous signal or channel over a lengthy period of time. In such systems, due to the continuous nature of the signal or channel being monitored, end users are sufficiently similar to a "captive audience" since most end users remain tuned to the same signal or channel even when the main program to which they are listening or viewing is interrupted by advertisements.

20 Another example of advertising mixed with information dissemination is the use of on-screen displays. In such arrangements, advertisements may be displayed to users in the form of scrolled text at the bottom of a television or computer screen. Often the main program occupies most of the end user's visual field and a smaller portion is occupied by advertisements and the like on a "scroll bar" or similar visual device along the periphery of the screen. In some cases, such as cable television channels that display, for example, a "stock ticker tape," this relationship is reversed; that is, the information portion of the screen occupies a small part of the screen, such as horizontally scrolling image region at the top or bottom of the display, and the remainder of the screen is occupied by advertisements, "infomercials" and the like.

30 Most, and perhaps all such examples of mixing advertisements with information content are based on systems in which the end user has actively elected to view or listen to a program or to otherwise receive information. Also, the information sought to be received by the end user, rarely bears any resemblance to the advertisements. Furthermore, in virtually all such systems or media, the placement of

advertisements and information content is explicitly programmed or determined by an editor, publisher, marketing manager, and other individuals who have similar content and/or presentation editing capacity.

5 Along with the emergence of the Internet and other communication networks has come a gradual migration from the typical channels of communication to more reliance on exchanging data via the Internet. Until now, distributing information via the Internet or other publicly accessible computer communication networks, has been largely unsupported by advertising revenues due to the lack of good mechanisms for mixing advertising with information content in such a way as to be acceptable to both
10 end users and advertisers. There are, of course, some exceptions. For instance, some newspapers have been "published" at least in part on the Internet, and include advertisements along with information content. In fact, some newspapers sell advertising space on an associated World Wide Web (WWW) site, which often includes extensive listings of certain types of advertisements, such as real estate advertisements, personal advertisements, and so on. There are also examples of
15 computer programs which contain advertisements. For instance, some Internet Service Providers (ISPs) give users free access to the Internet, provided the user agrees to view advertisements in their browser. However, in this case as with all past arrangements, the advertisements are randomly presented to the user with no regard for the user's interests, needs, or desires. The conventional "pop up" windows are a
20 prime example of this particular type of advertisement.

Despite these exceptions, current electronic information distribution systems offer several drawbacks. For example, "on line" newspapers and magazines are notoriously difficult and tedious to read. Graphics, animation and full motion video,
25 all techniques widely used in television news programs, require substantial data transmission bandwidth. Such data transmission is expensive both in terms of communications bandwidth (capacity) and time. In non-computer publishing, such as printed magazines and newspapers, graphics are often used to make reading less difficult and tedious. In television, the majority of information is delivered with
30 movement (e.g., animation), although graphics are also often used.

The use of large bandwidth is not economically practical in the context of data dissemination via the Internet and other computer networks even though the cost of such data transmissions will undoubtedly continue to decrease. As a result, graphics

and animation have typically received relatively little use in computer network-based information dissemination systems. Further, the unwelcome intrusion caused by typical "pop up" advertisements often alienates consumers regardless of the underlying message.

5 The present invention, as further disclosed herein, mixes advertising and information content dissemination in a manner unlike the examples mentioned above. For example, the present invention disseminates information and advertisements to subscriber's computers in a system where the advertisements are related to the underlying information, and where the advertisements can be selectively displayed by
10 the user. Methods and systems consistent with the principles of the present invention can thus provide the right advertisement, to the right person, in a manner that is not intrusive or otherwise objectionable to the user. These and other advantages of the invention will become more readily apparent in the detailed description that follows.

Summary of the Invention

15 Systems and methods consistent with the principles of the invention provide an electronic account statement with embedded tags that allow, for example, a retail customer to review his/her electronic account statement online, and selectively view Web-based merchant advertisements and other information that correspond to individual retail transactions. In a preferred embodiment, the present invention
20 includes a networked data-handling system including a plurality of vendor, creditor, and customer servers/computers. The vendor server is programmed to receive transaction records from point of sale terminals, and to cause the transaction records to be sent to a creditor server operated by a particular creditor. The vendor server also stores vendor advertisements in the form of hypertext transfer protocol (HTTP) pages
25 for transmission to requesting customer computers. The creditor server is programmed to receive transaction records from vendor servers, to create an electronic account statement comprised of a plurality of transaction records, each with an associated merchant WEB page advertisement, and to cause electronic account statements to be sent to each customer's computer. Embedded within the electronic
30 statement are "tags" which appear on the statement as a selected merchant's logo, name, or other symbol readily associated with the merchant. If the consumer clicks on these "tags" they are presented with relevant content. Relevant content includes, but is not limited to, a merchant Web page, a special coupon or discount, a Web page

of general information, or even a link to a chat room. The invention is programmed in such a way to provide the selective display of content based on the preferences of the statement issuer. In operation, a user purchases a good or a service and a transaction record is created by a vendor server. Periodically, the vendor server will transmit a
5 plurality of transaction records to the creditor server for payment processing. When the creditor server receives a transaction record from a vendor server, it first determines whether the identified vendor has purchased rights to the transaction record. In other words, has Home Depot™ agreed to pay to have a Home Depot tag embedded next to transaction records appearing on a customer's account statement. If
10 the vendor has not purchased the rights, the system identifies an alternate vendor (who has purchased rights), chat room, or other Web site that is relevant to the transaction record. Once an alternate vendor or site has been identified, the creditor server may create the transaction record with an embedded tag to the identified Web page. Once every predetermined number of weeks, the creditor server will compile a transaction
15 report for their customers and provide secure, on-line access by each customer to their respective transaction report. When a customer retrieves the report, he/she can review the transactions for accuracy and if desired, click on the associated tag to be routed to a vendor's home page, a related vendor's home page, an on-line coupon site, or an informational site related to the specific transaction.

20 In accordance with the another aspect of the invention, a creditor server is programmed to select an alternate vendor from a preferred list vendors according to predetermined criteria (e.g., desired frequency for advertising the vendor's web page, advertising revenue received from the particular vendor, etc.) when the vendor associated with the transaction record has not purchased rights to the transaction
25 record.

Advantageously, the present invention creates an attractive avenue for integrating vendor advertisements into an electronic account statement and, thereby, provides customers with meaningful advertisements reflective of their purchasing habits that simultaneously provides advertisers with a worthwhile and beneficial
30 avenue for advertising their merchandise.

It is to be understood that both the foregoing general description and the following detailed description of the invention are exemplary and explanatory only and are not restrictive of the present invention, as claimed.

Brief Description of the Drawings

The accompanying drawings, that are incorporated in and constitute a part of the present disclosure, illustrate presently preferred embodiments of the invention and, together with the general description given above and the detailed description of the preferred embodiments given below, serve to explain the principles of the invention. In the drawings,

Figure 1 is a block diagram of an exemplary network system architecture, in accordance with an aspect of the present invention;

Figure 2 is a more detailed block diagram of the vendor server of Figure 1;

Figure 3 is a schematic representation of a transaction record, in accordance with an aspect of the present invention;

Figure 4 is a more detailed block diagram of the creditor server of Figure 1;

Figure 5 is a schematic representation of a customer database record, in accordance with an aspect of the present invention;

Figure 6 is a schematic representation of a client advertiser database record, in accordance with an aspect of the present invention;

Figure 7 a more detailed block diagram of the customer computer of Figure 1;

Figure 8 is an exemplary flow chart of the data-handing network, in accordance with another aspect of the present invention;

Figure 9 is an exemplary flow chart of the logic flow of the software architecture components of the vendor server, in accordance with an aspect of the present invention;

Figure 10 is an exemplary flow chart of the logic flow of the software architecture components of the creditor server, in accordance with an aspect of the present invention; and

Figure 11 is a representation of an electronic account statement, in accordance with yet another aspect of the present invention.

Detailed Description

In the following detailed description, reference is made to the accompanying drawings that form a part of the disclosure. The drawings illustrate, by way of example, specific embodiments in which the invention may be practiced. These embodiments are described in sufficient detail to enable those skilled in the art to practice the invention and it is to be understood that other embodiments may be

utilized and that structural changes may be made without departing from the scope of the present invention. The following detailed description is, therefore, not to be taken in a limited sense.

5 The features and aspects of the invention described herein may be implemented as logical operations in a computing system. The logical operations of the present invention may be implemented: (1) as a sequence of computer implemented steps running on the computing system and (2) as interconnected machine modules within the computing system. The implementation is a matter of choice dependent on the performance requirements of the computing system
10 implementing the invention. Accordingly, the logical operations making up the features of the invention described herein are referred to variously as operations, steps, or modules.

The operating environment in which the present invention is used encompasses general distributed computing systems wherein general purpose
15 computers, workstations, or personal computers are connected via communication links of various types. In a client server arrangement, programs and data, many in the form of objects, are made available by various members of the system.

In accordance with the invention, users at remote terminals in a network communicate through the network to a server or a web site and are able to download
20 data from the server or web site to the user's client work station. As this embodiment of the invention is described herein, a web browser program on a client station for browsing a network, such as the Internet, will be referred to as the browser, while the server workstation with which the browser station is communicating during a download will be referred to as the server.

25 A system in accordance with the present invention, comprises a plurality of vendor, creditor and customer computers. Each type of computer (vendor, creditor, and customer) may be generally similar to every other type of computer including a central processing unit, display device, and operator input device. Moreover, it will be appreciated that each type of computer may also perform operations described
30 herein as being performed by every other type of computer. The distributed system may comprise any one of a number of types of networks over which client computers and server computers communicate, including local area networks (LANs), wide area networks (WANs), the Internet and any other networks that distribute processing and

share data among a plurality of nodes. The on-line services typically provide functionality such as electronic mail (email), file transfer protocol (FTP), and World Wide Web (WWW) access. In addition, it should be understood that the programs, processes, methods, etc. described herein are not related or limited to any particular computer or apparatus. Rather, various types of general purpose machines may be used with programs constructed in accordance with the teachings described herein.

WWW is a graphical subnetwork of the Internet. With common "web browser" software of the type of Mosaic or Netscape Navigator, the users may easily access Internet information and services on WWW. The web browser handles the function of locating and targeting information on the Internet and displaying information provided by a web server. WWW utilizes the technology called "hypertext" to organize, search and present information on the Internet. Using the browser, a user can select a word ("hypertext word") from a viewed document, and be linked to another document featuring information related to the word. These links are within the Web server domain and result in a progressively deeper search or base of choices.

In the business arena, a service provider can, with an Internet address and a hypertext editor, develop a hypertext document called a "home page", which a user may explore when he/she visits the provider's Web server. This home page furnishes information about the service offered by the provider through use of graphic images, sound, hyperlink choices, etc. With that information, the user is guided through the home page to select the service and desired service features.

Referring to FIG. 1, a networked data handling system 10 of the present invention is illustrated in which a plurality of interconnected computers and microprocessors are provided for hosting a plurality of operating systems. By way of example, the data handling system 10 can be comprised of Pentium™ based microprocessors operating on Windows/NT, UNIX and/or Windows/CE operating systems. However, the present invention may be embodied on a variety of different platforms, including Macintosh, UNIX, NextStep, MS-DOS, and the like. For the sake of clarity, FIG. 1 shows data handling system 10 as comprising a communications network (such as the Internet) 14 and only a single vendor server 12, creditor server 16 and customer computer 18. It is understood that the present invention permits any number of vendor, creditor or customer computer systems, each

of which operates as described below. Moreover, the operations performed by the data handling system 10 may all be performed on a single computer or on a subset of the computers shown in FIG. 1 without departing from the scope or content of this disclosure.

5 In particular, data handling system 10 includes one or more vendor servers 12, creditor servers 16 and customer computers 18. Each vendor server 12, creditor server 16 and customer computer 18 is coupled to the network or Internet 14 via a communications link 20. As shown in FIG. 1, each vendor server 12 is also logically coupled to a plurality of point-of-sale (P.O.S.) terminals 24. These point-of-sale
10 terminals 24 perform the functions commonly associated with a typical computerized, cash register. That is, terminals 24 process cash and credit transactions, update merchandise inventories and transmit relevant data to an associated vendor server 12 to aid in the creation of management reports. Terminals 24 also aid in the transmission of credit data to an appropriate creditor server 16. A vendor server 12 is
15 preferably operated by a retail establishment (e.g., Macy's, K-mart, Border's, etc.) The main role of vendor server 12 is to collect electronic transaction records (see FIG. 3) from associated point-of-sale terminals 24, process the transaction records with the appropriate creditor server 16 and to maintain a database of the vendor's Web-based advertisements (see FIG. 2).

20 As shown in FIG. 2, the vendor server 12 preferably includes a main memory 200, a display device 210, an input device 220, such as a keyboard and/or a pointing device (e.g., mouse, track ball, pen, slide pointer or similar device), a mass storage device 240, and a central processing unit (CPU) 230. These components communicate through a system bus or similar architecture. Additionally, the vendor
25 server 12 is preferably connected to an internal or external modem 250 or like device for communication with the network 14. Alternatively, the vendor server 12 may be connected via an ISDN adapter and an ISDN line for communications with the network 14. There may be other components as well, but these are not shown to facilitate description of the unique aspects of this embodiment of the invention. The
30 hardware arrangement of this computer, as well as the other computers discussed in this specification is intentionally shown as general, and is meant to represent a broad variety of architectures, which depend on the particular computing device used.

As further illustrated in FIG. 2, the mass storage device 240 maintains customer transactions records 300 and a database of the vendor's advertisements 28. A customer transaction record 300 is created every time a customer purchases merchandise with a credit card. While this specification describes the process in the context of credit card transactions, it is important to note that any type of retail transaction (cash, credit, debit, etc.) can serve as the underlying transaction for this invention without departing from the scope and intent of this invention. Once all the information is collected at the point-of-sale terminal 24 and the card holder's identity verified, a transaction record 300 is transmitted to the vendor server 12 for storage in the mass storage device 240. The vendor advertisements 28 are comprised of a collection of vendor advertisements in the form of, for example, WEB pages. Individual advertisements are generally sent in the form of Hyper-Text Markup Language (HTML) pages across communication link 20 to a WEB browser operating on a requesting customer computer 18.

As shown in FIG. 3, the electronic transaction records 300 consist of information identifying: the vendor 305; the customer 320; and the credit transaction 340. The vendor information 305 may comprise a vendor name 310, a vendor home page address 312, and a vendor designation 315. As shown, the vendor designation 315 includes data indicating one or more vendor specialties, which correspond to specific business areas pursued by a particular vendor. Examples of vendor specialties include housewares, outerwear, furniture, books, electronics, etc. The customer information 320 is comprised of data relating to the customer and creditor including a customer's name 326, a customer's credit card number 328, a creditor's name 335, a creditor's address 337 and a creditor's email address 338. Transaction information 340 includes transaction data such as the date/time of the purchase 342, the items purchased 344 and the transaction sales amount 350.

FIG. 4 shows a creditor server 16 in accordance with an aspect of the present invention. A creditor server 16 will typically be operated and maintained by a credit processing institution (e.g., Visa, Mastercard, American Express, Discover, etc.) for the purpose of compiling its customers' transactions, distributing monthly invoices to customers, collecting funds from card holders and distributing funds to appropriate vendors. Like vendor server 12, creditor server 16 preferably includes a main memory 400, a display device 410, an input device 420, such as a keyboard and/or a

pointing device, a mass storage device 440, a central processing unit (CPU) 430, and an internal or external modem 450. The mass storage device 440 of the creditor server 16 maintains a customer database 460, and a client advertiser database 470. Mass storage device 44 also stores a plurality of customer transaction records 300 to be compiled and reformatted as monthly electronic account statements.

As illustrated in FIG. 5, the customer database 460 is comprised of personal identification information for each customer as well as historic payment data.

For example, each customer database record includes a customer name 326, a credit card number 328, a mailing address 330, an electronic mail (email) address 332, an account balance 334, a credit line 336, and a credit line for cash 338.

FIG. 6 illustrates an exemplary arrangement for the client advertiser database 470. As shown in FIG. 6, the client advertiser database 470 may include one or more vendor specialties 620 and associated client advertisers 630. As previously discussed with reference to FIG. 3, vendor specialties correspond to business areas pursued by typical retail vendors. Client advertisers 630 are vendors who have established agreements with a creditor to have their WEB page embedded in the creditor's electronic account statements. These client advertisers may be small retail outlets looking for high visibility market exposure, or they may be larger retail establishments seeking to enter into a new area of the market.

FIG. 7 shows a more detailed representation of an exemplary customer computer 18, in accordance with an aspect of the present invention. As illustrated in FIG. 7, the customer computer 18 includes a main memory 700, a display device 710, an input device 720, such as a keyboard and/or a pointing device, a mass storage device 740, a central processing unit (CPU) 730, and an internal or external modem 750. The mass storage device 740 of the customer computer 18 maintains an Internet browser 760 for directing the CPU 730 to perform various functions related to retrieving and viewing WEB pages stored on the Internet. The vendor server 12, creditor server 16, and customer computer 18 shown in FIG. 1 independently run interrelated software programs and function as a group to provide electronic account statements in accordance with the present invention. As shown in FIG. 8, the vendor server 12 in step 800 first transmits transaction records to the appropriate creditor server 16. The creditor server 16 in step 810 then creates or updates a monthly statement for each credit card number from the transaction records and transmits an

electronic statement in step 820 to the appropriate customers' Web site or email address. Finally, in step 830, a customer logged onto a customer computer 18 retrieves his/her monthly statement and may access vendor advertisements, on-line coupons, or related chat rooms associated with one or more entries present in the electronic account statement.

FIG. 9 provides a more detailed explanation of the functions that may be performed by the vendor server 12 as part of step 800 in FIG. 8. At step 900, the vendor server 12 first retrieves a transaction record from main memory 400. Next, in step 910, the vendor server 12 determines whether the creditor name and address corresponds to a valid creditor ID. If it does, then logic flow proceeds to step 920. Otherwise, the process operating on the vendor server 12 invokes an error routine and terminates. In step 920, the vendor server 12 adds the valid record to the appropriate creditor's file. Next, the vendor server 12 determines in step 930 whether all of the stored transaction records have been searched. If they have, then logic flow proceeds to step 940 and the creditor files are transmitted to the appropriate creditor.

FIG. 10 illustrates the steps that may be performed by the creditor server 16 in step 810 of FIG. 8. As shown in step 1000, the creditor server 16 receives a creditor file from the vendor server 12. To prevent fraud, security measures may be built into the operating program of creditor server 16 such that reception of a creditor file from a location other than a vendor server 12 is thwarted by the software. In addition, if network 14 is a packet-switched network, wherein a message may be routed through many different nodes before reaching its destination, there is a risk of having a message containing the account information intercepted on the network. To eliminate such a risk, any well-known public key cryptographic algorithm may be utilized by the vendor server 12 to encrypt communications to creditor server 16. Creditor server 16 may also use the same algorithm to encrypt e-mail messages sent to the customer computers 18.

After receiving the creditor file, the creditor server 16 retrieves a transaction record 300 from the creditor file at step 1005. Next in step 1010, the creditor server 16 retrieves the credit card number 328, the vendor's name 310, the date and time of the purchase 342, and the sale amount 350 from the transaction record 300. In step 1020, the server 16 retrieves the vendor's home page address 312 from the transaction record 300. If in step 1030, the creditor server 16 determines that the

vendor has not purchased rights to the transaction record, logic flow proceeds to step 1035 and the vendor specialties are retrieved from the transaction record. As discussed above, the vendor specialties may be used by the creditor server 16 to select an alternate advertiser with a WEB-based home page to link to the electronic account statement. At step 1040, the client advertiser database 470 stored on the mass storage device 440 is accessed. The server 16 compares the retrieved vendor specialties 315 with those found in the client advertiser database 470. When a match is found, the creditor server 16 retrieves the associated client advertiser 630 and its corresponding web-based home page at step 1050.

In an alternate embodiment of the present invention, the creditor server 16 may select an alternate advertiser based on the customer's specific purchases, the amount of revenue received from the specific advertiser, the amount of time that has elapsed since the advertiser's WEB page was linked to an electronic account statement, or any one of a plurality of different selection criteria.

In yet another embodiment, the creditor server 16 may select sites other than advertiser sites. For example, the creditor server may select on-line coupons to link to a transaction record, or a chat room specifically related to the transaction, etc.

Once the creditor server 16 has retrieved the credit card number 328, the date and time of the purchase 342, and the sale amount 350 from the transaction record 300, together with a Web page tag, a transaction record is built with an embedded tag to the identified Web page, as indicated at step 1060 in FIG. 10. Next, in step 1070, the creditor server 16 stores the newly created record in a customer data file. In step 1080, the creditor server 16 determines whether there are any more unprocessed transaction records in the creditor file. If there are, logic flow proceeds to step 1000 and another transaction record is retrieved. If there are no more records, then creditor server 16 determines in step 1090 whether it is the end of a predetermined transaction period, such as the end of the month. If it is the end of the month, the creditor server 16 accesses the customer database 460 and retrieves the customer's email address 332. Creditor server 16 then transmits the electronic account statement with embedded tags to the customer's email address at step 1095. If it is not the end of the month, the process may terminate and the creditor server 16 will wait until a new creditor file is received from a vendor server before repeating the steps of FIG. 10.

Once the creditor server has compiled the data, an electronic account statement similar to the example of FIG. 11 may be created. As shown in FIG. 11, the electronic account statement is comprised of summary information 1100, payment, credit, and adjustment information 1150, and transaction information 1175.

5 Variations of the electronic account statement can be provided and constructed, including providing statements with an itemization of the actual purchases, account statements that specify foreign currencies, and payment and transaction information that includes comment lines. As shown in the exemplary electronic account statement of FIG. 11, there are several links or tags 1160 and 1170 that allow a user to retrieve
10 pages from other sites. More specifically, when a user manipulates an input or pointing device 720 to invoke the link indicated by 1160, an HTTP request is sent to the appropriate vendor server requesting the document. When the request is received by the vendor server, it accesses its mass storage device, retrieves the document and transmits it to the customer computer. In many cases, the document retrieved will be
15 a WEB page created and maintained by the merchant in which the credit was received. However, as indicated earlier, the possibility also exists for a web-based advertisement to be associated with a different merchant or a coupon or a chat room. This is likely to be the case when a merchant does not have an associated WEB page or has not paid for the service. As shown in FIG. 11, item 1170 indicates a link to a
20 WEB page for El Sombrero Restaurant, which does not match the merchant (Guadalajara Restaurant) from which credit was extended. In this case, a client advertiser was substituted by the creditor server because the listed merchant did not purchase rights to the transaction record. In addition to producing the electronic account statement, the creditor computer may provide various management services
25 such as gathering statistics on: (1) the number of times a typical customer invokes an electronic account statement link; (2) customer purchasing trends, as reflected in the electronic account statement, compared to the number of times the vendor's home page has been linked to an electronic account statement; (3) the number of "hits" on an advertiser's site compared to the number of times the vendor's home page has been
30 linked to an electronic account statement; and (4) the frequency with which a vendor's home page is linked to an electronic account statement.

A customer logged onto a customer computer 18 may view their electronic statement by accessing a secure Web page operating on the creditor server 16. In a

preferred embodiment, it is envisioned that the Web page will resemble the image depicted in FIG. 11. While viewing his statement, the customer is presented with a variety of links, initiated by "tags" for each statement line. Clicking on these links produces the content stored on the creditor server based on logic established for each link. In this way, customers can visit the home pages associated with their favorite business establishments as well as view sites of related merchants. For example, if a user logged onto the customer computer 18 activates the link 1160 contained within the electronic account statement, a second browser window will be created to display the contents of, for example, the "TOYS R US" home page. After the user reviews the contents of the displayed page, he/she may return to the electronic account statement to further review his/her account activity and activate other hyper links.

As an alternative, instead of transmitting an electronic account statement to the customer computer by email, a user logged onto a customer computer may access the creditor server's home page, and enter a user name and password to review an electronic account statement. In such a case, the presence of a newly issued account statement may be indicated to the customer by email or through another type of notification mechanism.

From the foregoing description, it will be appreciated that the present invention provides an efficient system and method for combining transaction data with merchant advertising information and presenting the combined information to a customer over the Internet, while the present invention has been described in relation to particular embodiments which are intended in all respects to be illustrative rather than restrictive, those skilled in the art will appreciate that different combinations of components will be suitable for practicing the present invention. Many commercially available substitutes, each having somewhat different cost and performance characteristics, exist for each of the components described above.

Although aspects of the present invention are described as being stored in memory, one skilled in the art will appreciate that these aspects can also be stored on or read from other types of computer-readable media, such as secondary storage devices, like hard disks, floppy disks, or CD-ROMs; or other forms of RAM or ROM. Similarly, the method of the present invention may conveniently be implemented in program modules that are based upon the flow charts in FIGS. 8-10. No particular programming language has been indicated for carrying out the various procedures

described above because it is considered that the operations, steps and procedures described above and illustrated in the accompanying drawings are sufficiently disclosed to permit one of ordinary skill in the art to practice the instant invention. Moreover, there are many computers and operating systems which may be used in practicing the instant invention and therefore no detailed computer program could be provided which would be applicable to these many different systems. Each user of a particular computer will be aware of the language and tools which are most useful for that user's needs and purposes.

Alternative embodiments will become apparent to those skilled in the art to which the present invention pertains without departing from its spirit and scope. Accordingly, the scope of the present invention is defined by the appended claims rather than the foregoing description.

WHAT IS CLAIMED IS:

1. A method for integrating retail transaction data with merchant advertising information over a computer network comprising a plurality of computers, the method comprising the steps of:
 - 5 receiving a record from a first computer, said record comprising at least one retail transaction; and
 - building a page for display, said page comprising said at least one retail transaction and a tag corresponding to a second page of information.
- 10 2. The method of claim 1 further comprising the step of transmitting said page to a second computer.
3. The method of claim 1 wherein said second page of information is comprised of vendor advertisements.
4. The method of claim 1 wherein said second page of information is comprised of online coupon data.
- 15 5. The method of claim 1 wherein said second page of information is comprised of data relevant to the transaction.
6. A method for integrating retail transaction data with merchant advertising information over a computer network comprising a plurality of computers, the method comprising the steps of:
 - 20 transmitting a record from a first computer to a second computer, said record comprising at least one retail transaction;
 - receiving said record at the second computer; and
 - building a page for display, said page comprising said at least one retail transaction and a tag corresponding to a second page of information.
- 25 7. The method of claim 6 further comprising the step of transmitting said page to a third computer.
8. The method of claim 7 wherein said second page of information is comprised of vendor advertisements.
9. A method for integrating retail transaction data with merchant advertising information over a computer network comprising a plurality of computers, the method comprising the steps of:
 - 30 receiving a record from a first computer, said record comprising at least one retail transaction;

parsing the record for a tag to a second page of information;
searching a memory location for an alternate tag, in accordance with a failed
attempt to locate said tag in said record; and

5 building a page for display, said page comprising said at least one retail
transaction and a tag corresponding to a page of information.

10. The method of claim 9 further comprising the step of transmitting said
page to a second computer.

11. The method of claim 9 wherein said second page of information is
comprised of vendor advertisements.

10 12. The method of claim 9 wherein said second page of information is
comprised of online coupon data.

13. The method of claim 9 wherein said second page of information is
comprised of data relevant to the transaction.

15 14. A method for integrating retail transaction data with merchant
advertising information over a computer network comprising a plurality of computers,
the method comprising the steps of:

transmitting a record from a first computer to a second computer, said record
comprising at least one retail transaction;

20 receiving said record at the second computer;

20 parsing the record for a tag to a second page of information;

searching a memory location for an alternate tag, in accordance with a failed
attempt to locate said tag in said record; and

building a page for display, said page comprising said at least one retail
transaction and a tag corresponding to a second page of information.

25 15. The method of claim 14 further comprising the step of transmitting
said page to a third computer.

16. The method of claim 15 wherein said second page of information is
comprised of vendor advertisements.

30 17. The method of claim 15 wherein said second page of information is
comprised of online coupon data.

18. The method of claim 15 wherein said second page of information is
comprised of data relevant to the transaction.

19. An apparatus for integrating information from multiple resources over a computer network comprising a plurality of computers, the apparatus comprising:

a receiver configured to receive a record from a first computer, said record comprising at least one retail transaction; and

5 a component configured to build a page for display, said page comprising said at least one retail transaction and a tag corresponding to a second page of information.

20. The apparatus of claim 19, wherein said component configured to build a page for display further includes:

10 a component configured to determine whether the retail transaction contains a tag; and

a component configured to display a button corresponding to the tag within the page.

21. The apparatus of claim 19 further comprising a transmitter for
15 transmitting said page to a second computer.

22. The apparatus of claim 19 wherein said second page of information is comprised of vendor advertisements.

23. The apparatus of claim 19 wherein said second page of information is comprised of online coupon data.

20 24. The apparatus of claim 19 wherein said second page of information is comprised of data relevant to the transaction.

25. An apparatus for integrating information from multiple resources over a computer network comprising a plurality of computers, the apparatus comprising:

25 a transmitter configured to transmit a record from a first computer to a second computer, said record comprising at least one retail transaction;

a receiver configured to receive said record at the second computer; and

30 a component configured to build a page for display, said page comprising said at least one retail transaction and a tag corresponding to a second page of information.

26. The apparatus of claim 25 further comprising a transmitter for transmitting said page to a third computer.

27. The apparatus of claim 25 wherein said second page of information is comprised of vendor advertisements.

28. The apparatus of claim 25 wherein said second page of information is comprised of online coupon data.

5 29. The apparatus of claim 25 wherein said second page of information is comprised of data relevant to the transaction.

30. A apparatus for integrating information from multiple resources over a computer network comprising a plurality of computers, the apparatus comprising:

10 a receiver configured to receive a record from a first computer, said record comprising at least one retail transaction;

a parser for parsing the record for a tag to a second page of information;

a component for searching a memory location for an alternate tag, in accordance with a failed attempt to locate said tag in said record; and

15 a component for building a page for display, said page comprising said at least one retail transaction and a tag corresponding to a page of information.

31. The apparatus of claim 30 further comprising a transmitter for transmitting said page to a second computer.

20 32. The apparatus of claim 30 wherein said second page of information is comprised of vendor advertisements.

33. The apparatus of claim 30 wherein said second page of information is comprised of online coupon data.

34. The apparatus of claim 30 wherein said second page of information is comprised of data relevant to the transaction.

25 35. A apparatus for integrating information from multiple resources over a computer network comprising a plurality of computers, the apparatus comprising:

a transmitter for transmitting a record from a first computer to a second computer, said record comprising at least one retail transaction;

30 a receiver configured to receive said record at the second computer;

a parser for parsing the record for a tag to a second page of information;

a component for searching a memory location for an alternate tag, in accordance with a failed attempt to locate said tag in said record; and

a component for building a page for display, said page comprising said at least one retail transaction and a tag corresponding to a second page of information.

5 36. The apparatus of claim 35 further comprising a transmitter for transmitting said page to a third computer.

37. The apparatus of claim 35 wherein said second page of information is comprised of vendor advertisements.

38. The apparatus of claim 35 wherein said second page of information is comprised of online coupon data.

10 39. The apparatus of claim 35 wherein said second page of information is comprised of data relevant to the transaction.

40. A computer-readable medium containing instructions for retrieving information from a computer network comprising a plurality of computers, the method comprising the steps of:

15 receiving a record from a first computer, said record comprising at least one retail transaction; and

building a page for display, said page comprising said at least one retail transaction and a tag corresponding to a second page of information.

20 41. The computer-readable medium of claim 40 further comprising the step of transmitting said page to a second computer.

42. The computer-readable medium of claim 40 wherein said second page of information is comprised of vendor advertisements.

43. The computer-readable medium of claim 40 wherein said second page of information is comprised of online coupon data.

25 44. The computer-readable medium of claim 40 wherein said second page of information is comprised of data relevant to the transaction.

45. A computer-readable medium containing instructions for retrieving information from a computer network comprising a plurality of computers, the method comprising the steps of:

30 transmitting a record from a first computer to a second computer, said record comprising at least one retail transaction;

receiving said record at the second computer; and

building a page for display, said page comprising said at least one retail transaction and a tag corresponding to a second page of information.

46. The computer-readable medium of claim 45 further comprising the step of transmitting said page to a third computer.

5 47. The computer-readable medium of claim 46 wherein said second page of information is comprised of vendor advertisements.

48. A computer-readable medium containing instructions for retrieving information from a computer network comprising a plurality of computers, the method comprising the steps of:

10 receiving a record from a first computer, said record comprising at least one retail transaction;

parsing the record for a tag to a second page of information;

searching a memory location for an alternate tag, in accordance with a failed attempt to locate said tag in said record; and

15 building a page for display, said page comprising said at least one retail transaction and a tag corresponding to a page of information.

49. The computer-readable medium of claim 48 further comprising the step of transmitting said page to a second computer.

20 50. The computer-readable medium of claim 48 wherein said second page of information is comprised of vendor advertisements.

51. The computer-readable medium of claim 48 wherein said second page of information is comprised of online coupon data.

52. The computer-readable medium of claim 48 wherein said second page of information is comprised of data relevant to the transaction.

25 53. A computer-readable medium containing instructions for retrieving information from a computer network comprising a plurality of computers, the method comprising the steps of:

transmitting a record from a first computer to a second computer, said record comprising at least one retail transaction;

30 receiving said record at the second computer;

parsing the record for a tag to a second page of information;

searching a memory location for an alternate tag, in accordance with a failed attempt to locate said tag in said record; and

building a page for display, said page comprising said at least one retail transaction and a tag corresponding to a second page of information.

54. The computer-readable medium of claim 53 further comprising the step of transmitting said page to a third computer.

5 55. The computer-readable medium of claim 54 wherein said second page of information is comprised of vendor advertisements.

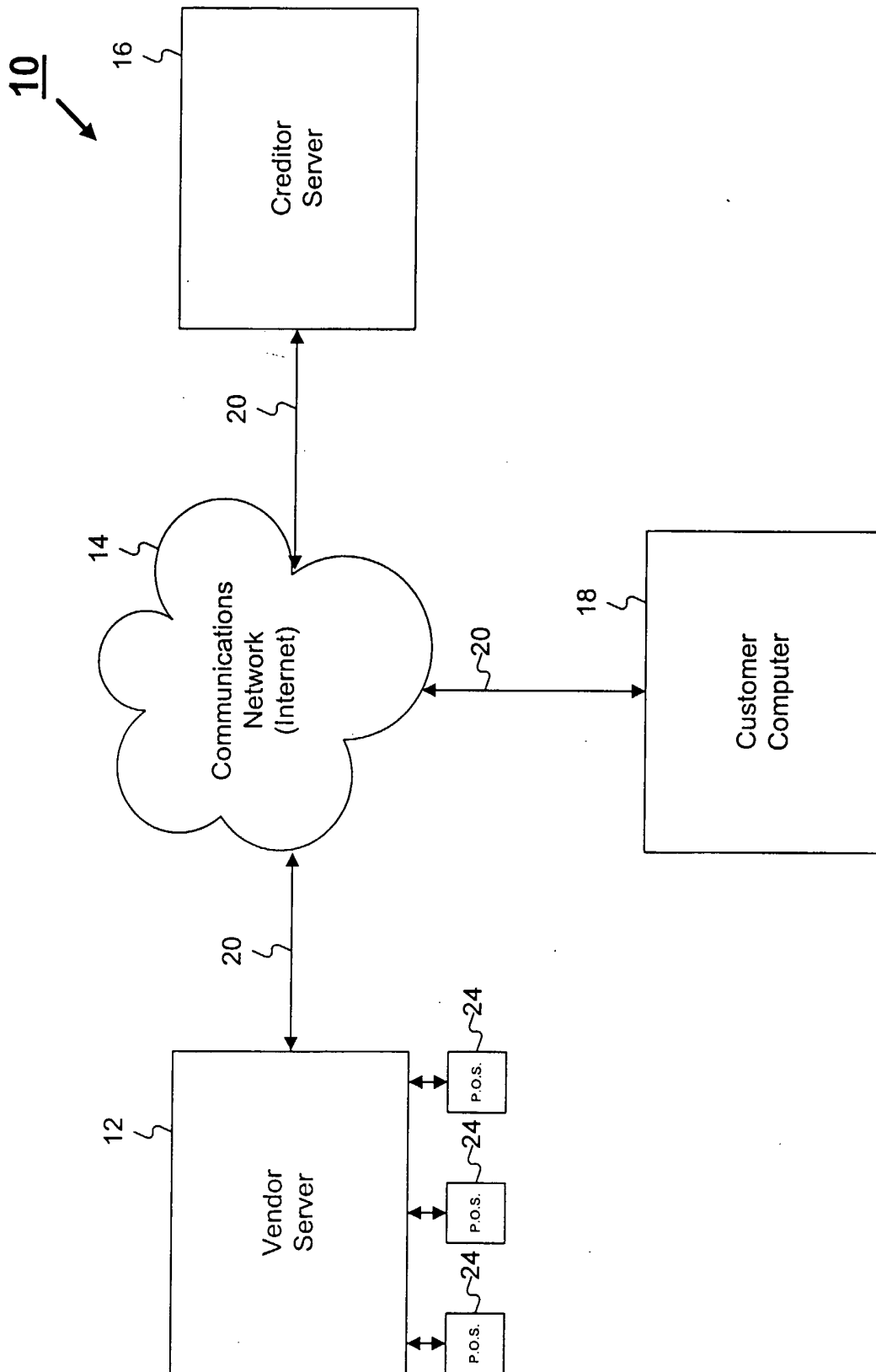


FIG. 1

12 ↘

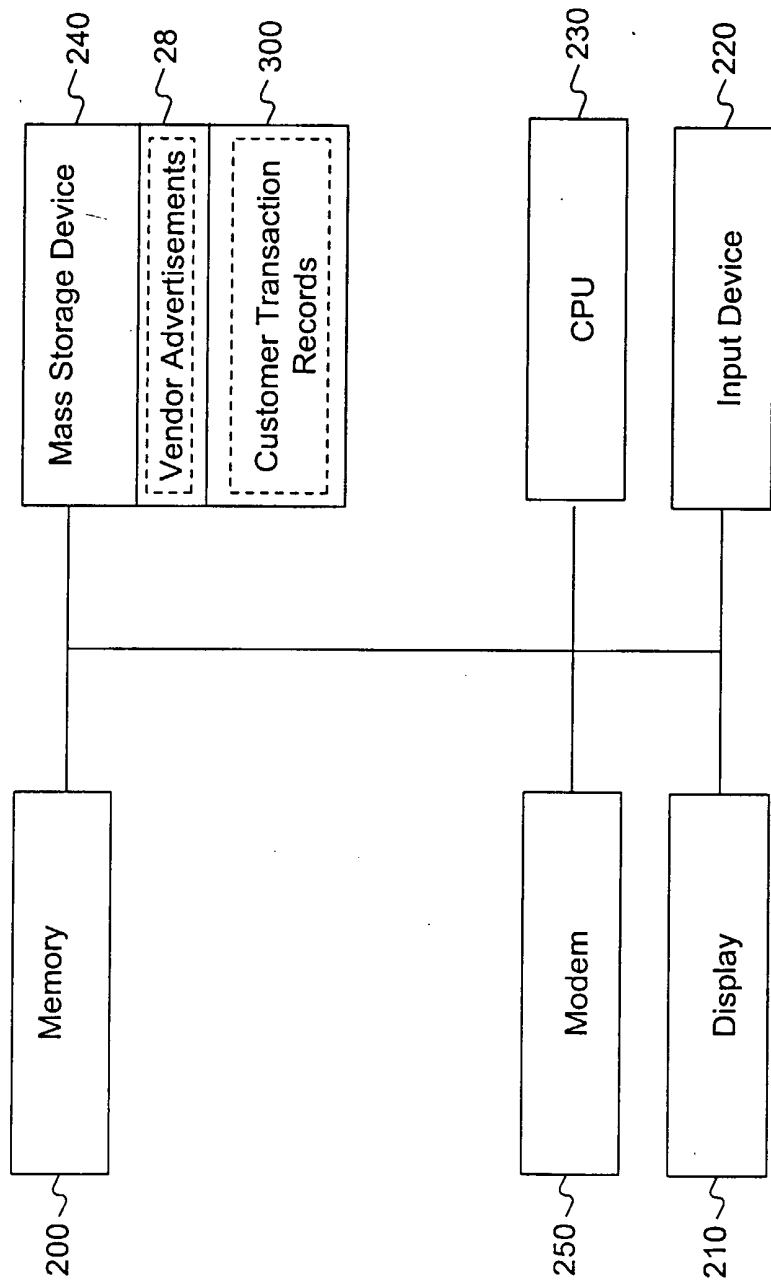


FIG. 2

300

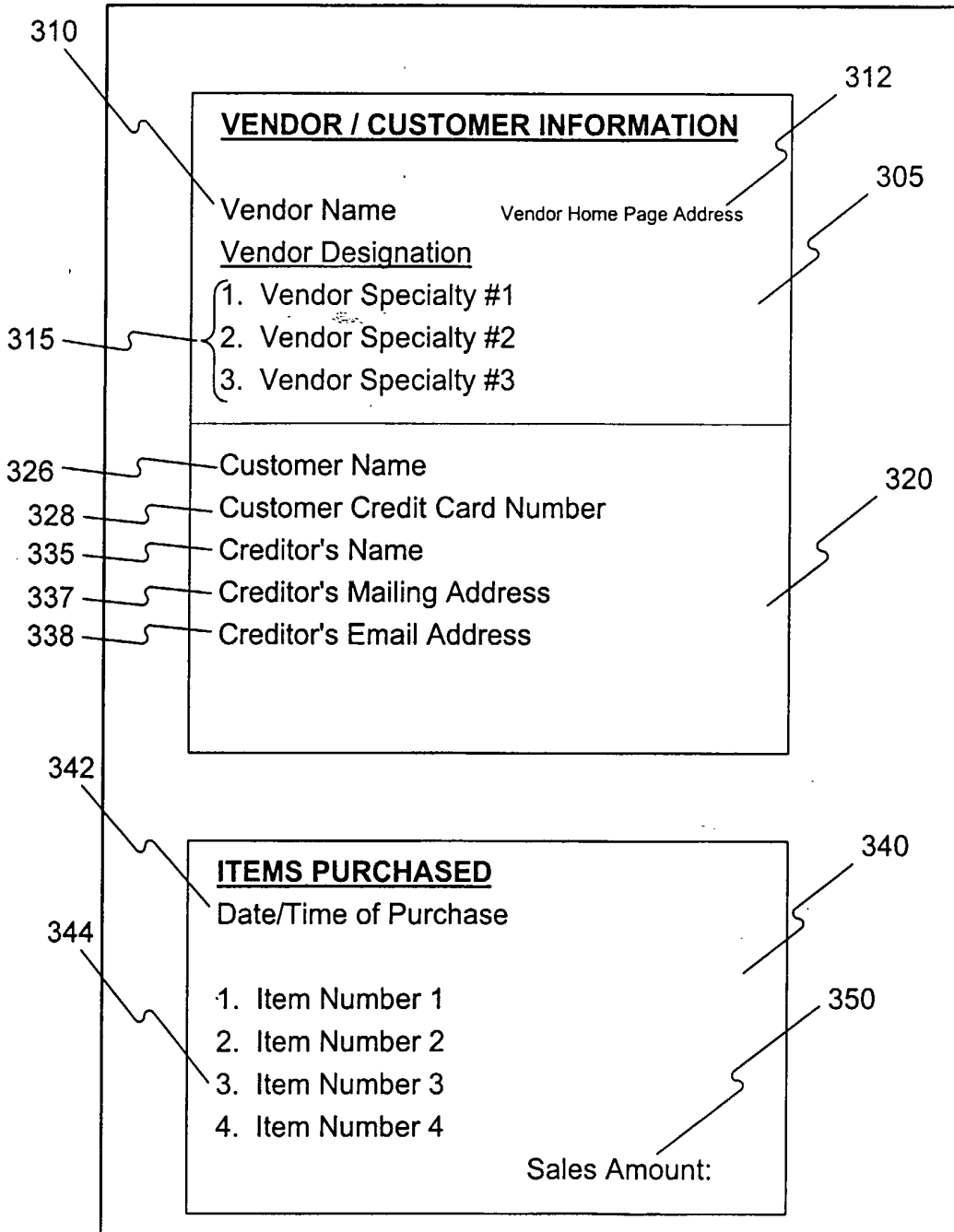


FIG. 3

16 ↘

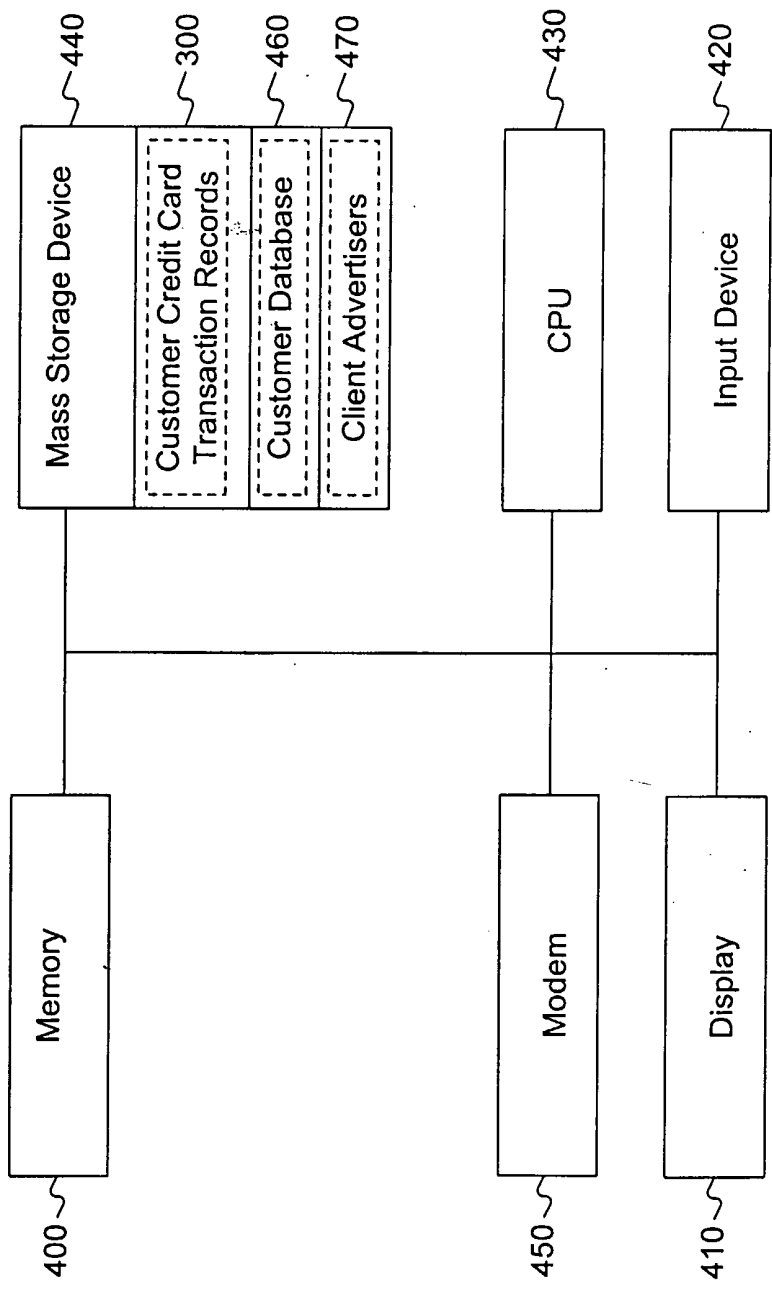


FIG. 4

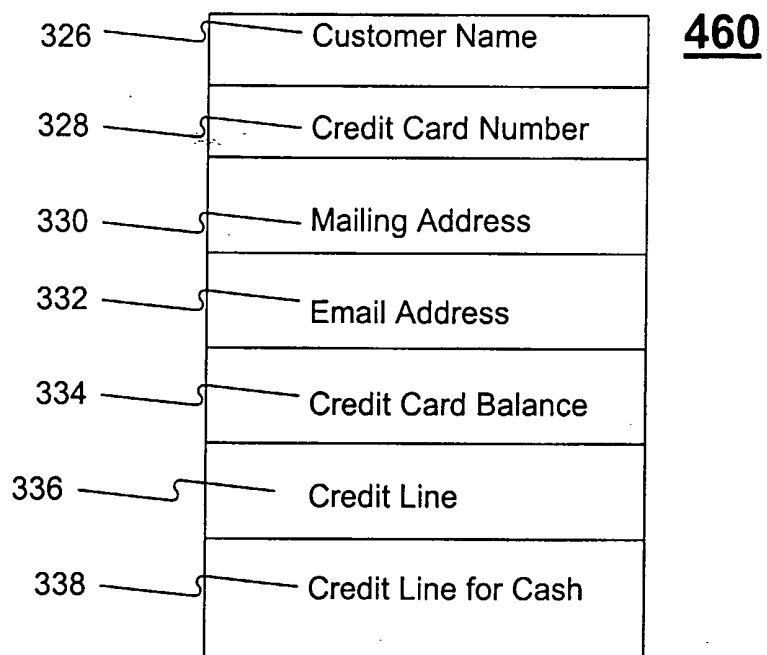


FIG. 5

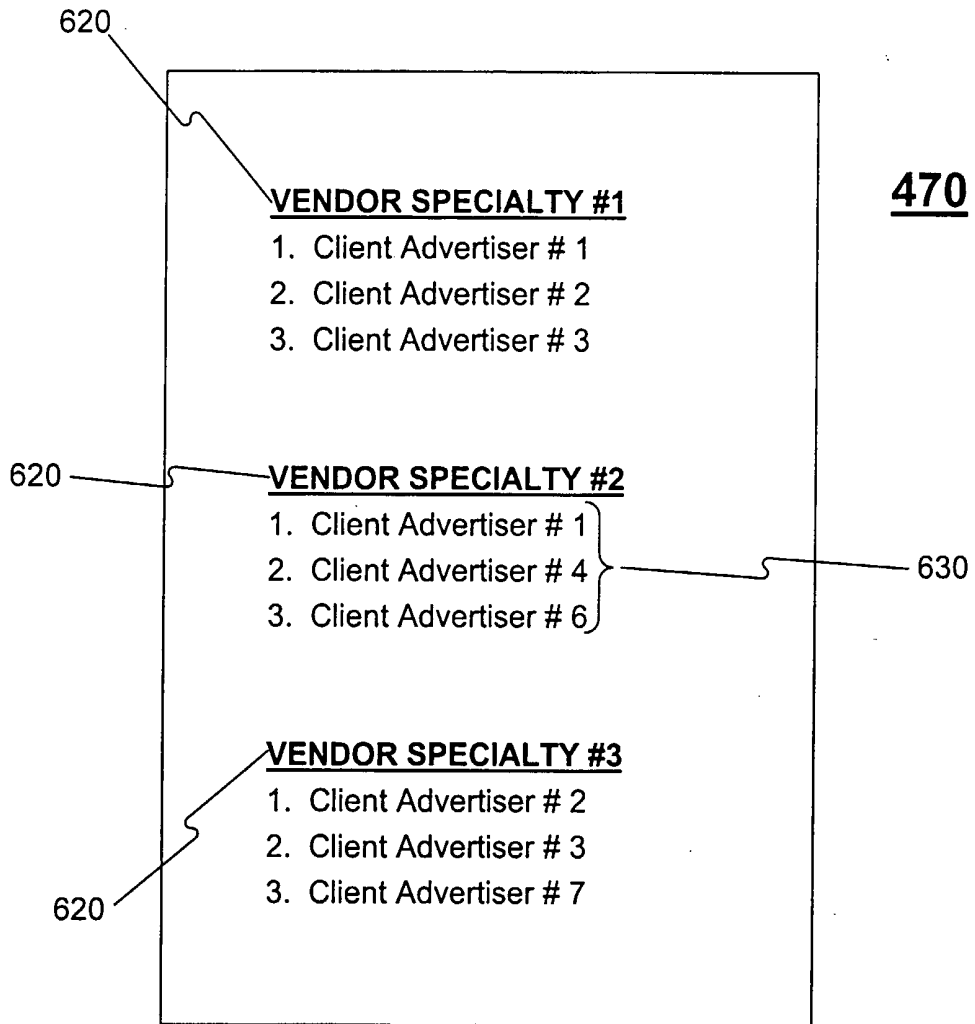


FIG. 6

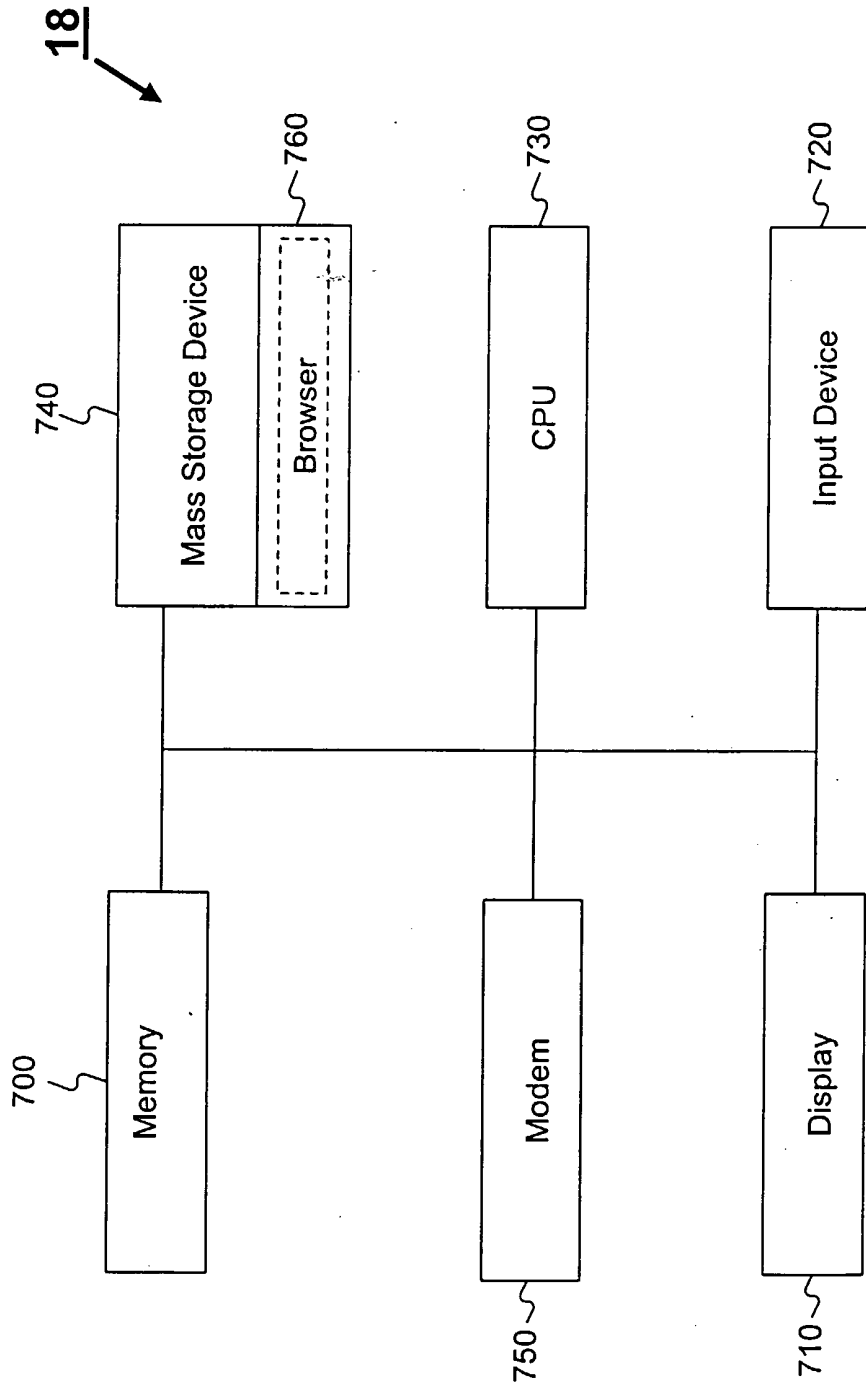


FIG. 7

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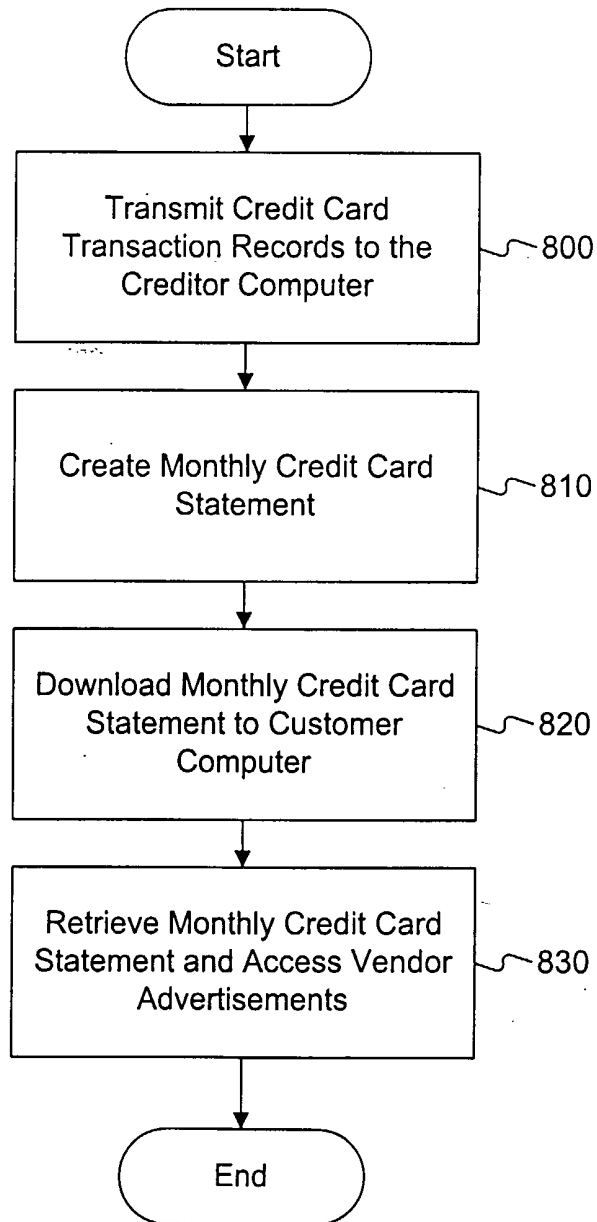
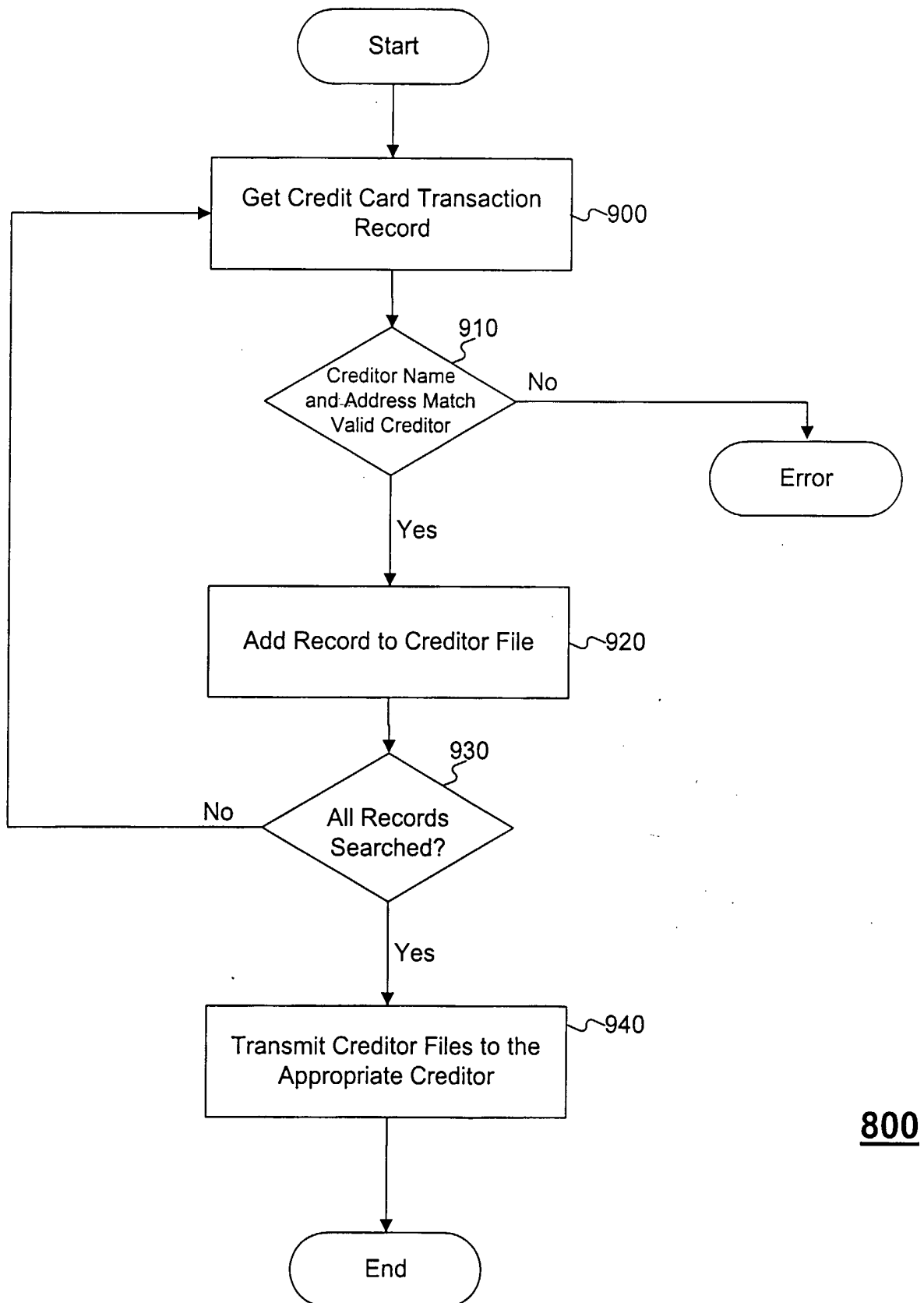


FIG. 8

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800

FIG. 9

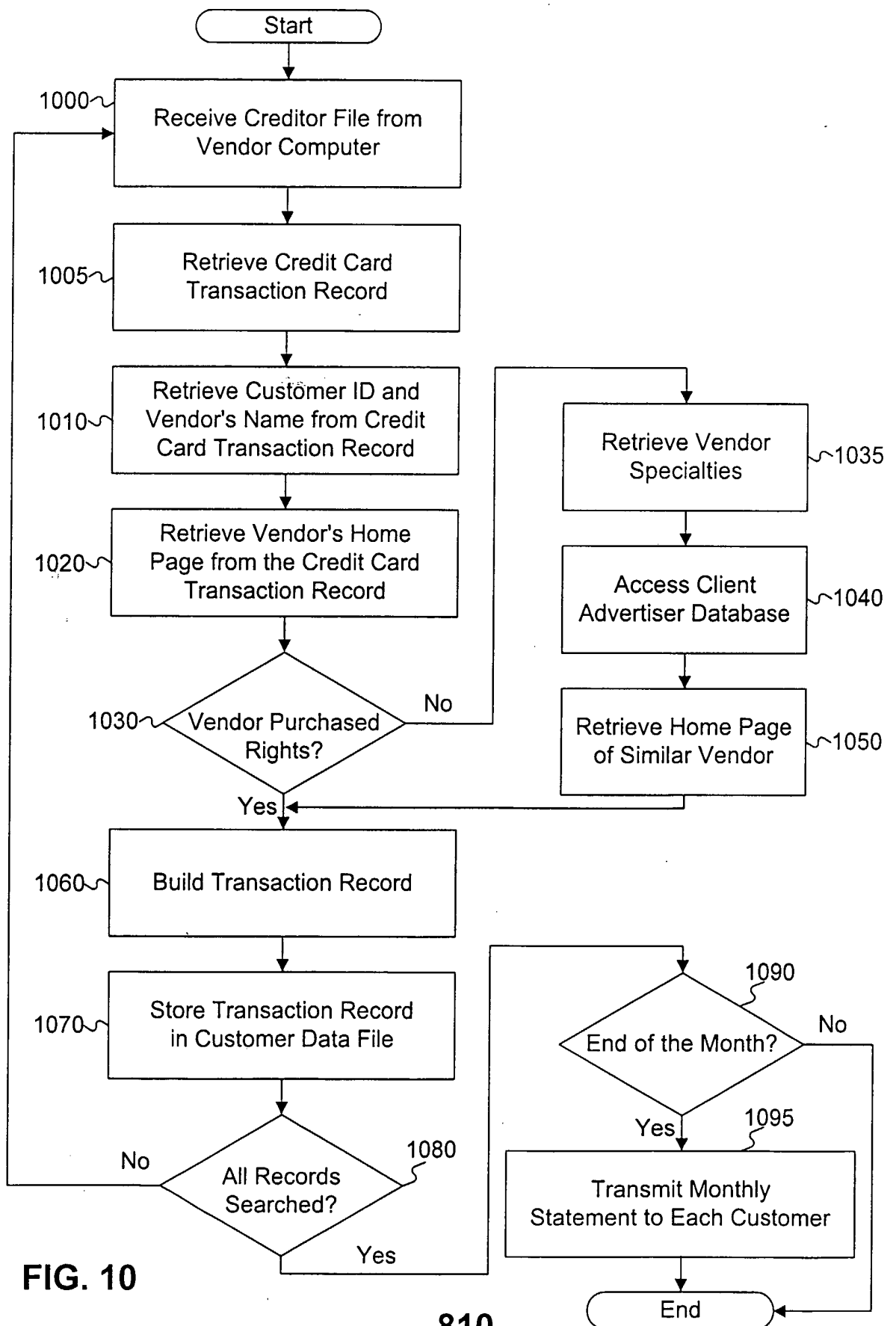


FIG. 10

810

My Account: Lee M. Cardholder

MY STATEMENT dated Jan 8, 1999

[Help](#)
[Customer Care](#)
[FAQs](#)
[My Account Activity](#)
[Balance Transfer](#)
[Pay My Bill](#)
[1150](#)
[Click Here For Important Information](#)

[Mail Waiting](#)
[Customize Statement](#)

MasterCard Summary
Account # 1234-5678-9123-4567

Previous Balance	\$148.04
Payments, Credits, and Adjustments	20.00
Transactions	36.71
Finance Charges	2.76
New Balance	166.51
Minimum Amount Due	PAID-46-66
Payment Due Date	2-1-99
Total Credit Line	200.00
Total Available Credit	33.40
Credit Line for Cash	200.00
Available Credit for Cash	33.40

Payments, Credits, and Adjustments sort by date, detail, or amount

1	05 DEC Payment - Thank you!	\$102.50-	1160
2	20 DEC Credit Toys-R-US 218-643-9982 Wei, NV	17.45-	TOYS" [®] US

Transactions 1170

3	02 DEC Circuit City #78-900 DEPT 1395752	\$22.43	CIRCUIT CITY
4	17 DEC Guadalajara Restaurant CHVL VALIC78T 40 char	26.00	El Sombrero.com
5	20 DEC Home Depot #3354 d2208 XL2 CHG	99,910.15	the HOME DEPOT
6	20 DEC Borders Books RICH VA	4.13	Borders.COM

1100 1175

At Your Service

To avoid any additional finance charges; pay the total new balance in full by the statement due date

[Download Statement as](#)

Finance Charges

Balance rate applied to	Periodic rate	Corresponding APR	FINANCE CHARGE
PURCHASES \$135.51	.054% F	19.71 %	\$2.29
CASH \$27.99	0.54% F	19.71 %	\$.47
ANNUAL PERCENTAGE RATE applied this period			19.71%

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DECLARATION OF NON-ESTABLISHMENT OF INTERNATIONAL SEARCH REPORT

(PCT Article 17(2)(a), Rules 13ter.1(c) and Rule 39)

Applicant's or agent's file reference 5793.3019-304	IMPORTANT DECLARATION	Date of mailing(day/month/year) 24/07/2001
International application No. PCT/US 01/ 11883	International filing date(day/month/year) 12/04/2001	(Earliest) Priority date(day/month/year) 13/04/2000
International Patent Classification (IPC) or both national classification and IPC		G06F17/60
Applicant CAPITAL ONE FINANCIAL CORPORATION		

This International Searching Authority hereby declares, according to Article 17(2)(a), that **no international search report will be established** on the international application for the reasons indicated below

1. The subject matter of the international application relates to:
- a. scientific theories.
 - b. mathematical theories
 - c. plant varieties.
 - d. animal varieties.
 - e. essentially biological processes for the production of plants and animals, other than microbiological processes and the products of such processes.
 - f. schemes, rules or methods of doing business.
 - g. schemes, rules or methods of performing purely mental acts.
 - h. schemes, rules or methods of playing games.
 - i. methods for treatment of the human body by surgery or therapy.
 - j. methods for treatment of the animal body by surgery or therapy.
 - k. diagnostic methods practised on the human or animal body.
 - l. mere presentations of information.
 - m. computer programs for which this International Searching Authority is not equipped to search prior art.
2. The failure of the following parts of the international application to comply with prescribed requirements prevents a meaningful search from being carried out:
- the description the claims the drawings
3. The failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions prevents a meaningful search from being carried out:
- the written form has not been furnished or does not comply with the standard.
- the computer readable form has not been furnished or does not comply with the standard.
4. Further comments:

Name and mailing address of the International Searching Authority  European Patent Office, P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Mar'a Rodr'guez N'voa
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FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 203

The subject-matter claimed in claims 1-18 falls under the provisions of Article 17(2)(a)(i) and Rule 39.1(iii), PCT, such subject-matter relating to a method of doing business.

Claims 19-39 and 40-55 relate to a conventional apparatus, respectively a conventional computer readable medium, for performing the business method of claims 1-18. Although these claims do not literally belong to the method category, they essentially claim protection for the same commercial effect as the method claims. The International Searching Authority considers that searching this subject-matter would serve no useful purpose. It is not at present apparent how the subject-matter of the present claims may be considered defensible in any subsequent examination phase in front of the EPO as International Preliminary Examining Authority with regard to the provisions of Article 33(1) PCT (novelty, inventive step); see also Guidelines B-VII, 1-6.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.