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Attorneys for Plaintiff
GTX Corp.

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA

GTX CORP., PLAINTIFF, v. **OPENBUCKS CORP.** DEFENDANT	Case No. **ORIGINAL COMPLAINT FOR PATENT INFRINGEMENT** **DEMAND FOR JURY TRIAL**

Plaintiff GTX Corp ("GTX"), by and through its attorneys, brings this Complaint for Patent Infringement against Defendant OpenBucks Corp. ("OpenBucks"), and alleges as follows:

NATURE OF THIS ACTION

1. This is a patent infringement action brought by GTX against OpenBucks based on OpenBucks's ongoing willful infringement of U.S. Patent No. 6,876,979 (the "Patent-In-

Suit") arising under the Patent Laws of the United States, 35 U.S.C. § 1 et seq., and seeking damages and injunctive relief under 35 U.S.C. §§ 271, 281, 283-285.

PARTIES

2. Plaintiff GTX is a corporation organized under the laws of the State of Delaware, and has a principal place of business at 15941 N. 77th Street, Suite #4, Scottsdale, Arizona 85260.

3. Upon information and belief, Defendant OpenBucks is a corporation organized under the laws of the State of Delaware, with a principal place of business at 440 N. Wolfe Road, #3036, Sunnyvale, California 94085.

JURISDICTION AND VENUE

4. This is an action for patent infringement arising under the United States patent statutes, 35 U.S.C. § 1 et. seq.

5. This Court has subject matter jurisdiction over this action under 28 U.S.C. §§ 1331 and 1338(a).

6. This Court has personal jurisdiction over Defendant OpenBucks at least by virtue of OpenBucks having a principle place of business in this District, conducting business in this District and/or having committed one or more acts of infringement in this District by operating its infringing OpenBucks Service in this District.

7. Venue is proper in this District under 28 U.S.C. § 1400(b).

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FACTUAL BACKGROUND

GTX

8. GTX is a corporation founded by Dr. Marvin T. Ling over thirty years ago. Dr. Ling is the named inventor on numerous patents, including the Patent-in-Suit. GTX also produces patented Computer Aided Design (CAD) software, tools and other solutions which have been successful in the marketplace.

9. Many of GTX patents, including the Patent-in-Suit, have also been successfully licensed to several companies from small businesses to Fortune 100 companies.

OpenBucks

10. Upon information and belief, OpenBucks offers online cash-based payment solutions for mobile and desktop web sites by giving consumers options to pay cash online via top retailer prepaid and gift card brands. http://www.openbucks.com/

11. Upon information and belief, consumers can load funds onto a card from, for example, SUBWAY, CVS/Pharmacy, Dollar General, oBucks, Pacific Coffee, EPlus Online to use as a payment method on sites that support OpenBucks. http://www.openbucks.com/faq.html

12. On May 2, 2017, GTX notified OpenBucks of its infringement of the Patent-In-Suit by way of a letter sent to OpenBucks's CEO, Mr. Marc Rochman, identifying the Patent-In-Suit and providing notice that OpenBucks infringed the same.

13. Enclosed with the May 2, 2017 letter was a copy of the Patent-in-Suit along with a claim chart for the same, which explained OpenBucks's infringement of numerous claims, on an element-by-element basis.

14. On information and belief, OpenBucks received GTX's May 2, 2017 letter and accompanying claim charts on May 8, 2017.

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15. Following a subsequent letter sent to OpenBucks CEO on June 1, 2017, OpenBucks responded to GTX by way of email on June 5, 2017.

16. Despite GTX's attempts to reach a resolution with OpenBucks, OpenBucks has continued its ongoing willful infringement of the Patent-In-Suit. As such, GTX has brought this action to seek injunctive relief and just compensation for OpenBucks's past and ongoing infringement of the Patent-In-Suit.

PATENT-IN-SUIT

17. U.S. Patent No. 6,876,979 ("the '979 Patent"), entitled "Electronic Commerce Bridge System", was duly and legally issued to Marvin T. Ling by the United States Patent and Trademark Office ("USPTO") on April 5, 2005. A true and correct copy of U.S. Patent No. 6,876,979 is attached as Exhibit A. GTX is the lawful owner by assignment of the '979 Patent and holds all rights, title and interest in that patent.

COUNT I

(INFRINGEMENT OF U.S. PATENT NO. 6,876,979)

18. GTX repeats and realleges the allegations contained in Paragraphs 1 through 17 above as fully set forth herein.

Direct Infringement

19. OpenBucks has directly infringed and continues to directly infringe, literally or under the doctrine of equivalents, one or more claims of the '979 Patent in violation of 35 U.S.C. § 271(a) in the United States. OpenBucks's infringement includes: practicing the method of independent claim 1 and dependent claims 4, 7, 12 and 13 of the '979 Patent.

20. OpenBucks's direct infringement includes, without limitation, operating, in the United States, the computer-based OpenBucks Service that enables consumers to use pre-paid instruments, including gift cards to purchase prepaid access to goods and services from

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certain online merchants in the OpenBucks network, and to redeem this prepaid access for goods and services sold by one or more of those merchants.

21. By way of example, claim 1 of the '979 Patent recites as follows:

- A method for using an electronic commerce system having a bridge computer to allow a user at a user device to make a product purchase at a purchase price from a given vendor having a web site provided by a vendor computer over a communications network, wherein the vendor is associated with at least one of a plurality of service providers wherein each of the plurality of service providers has a service provider computer, and wherein the user has a user account maintained by at least one of the plurality of service providers, the method comprising:
- debiting the user's account by the purchase price when the user purchases the product from the given vendor;
- determining from among the plurality of service providers, using the bridge computer, whether the given vendor is associated with the same service provider with which the user's account is maintained or is associated with a different service provider;
- and if the service provider with which the user's account is maintained is the same as the service provider with which the vendor is associated, crediting the given vendor by the purchase price using funds from the user's account at that same service provider and, if the service provider with which the user's account is maintained is different from the service provider with which the vendor is associated, crediting the given vendor by the purchase price using funds from the service provider with which the vendor is associated and using the bridge

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computer to reimburse that service provider with the purchase price using funds from the user's account.

22. The recited "bridge computer to allow a user at a user device to make a product purchase at a purchase price from a given vendor having a web site provided by a vendor computer over a communications network" should be interpreted to cover the disclosed corresponding structure that performs the recited function and equivalents of that structure. . *See* Expert Declaration of John Rizzo (*i.e.*, "the Rizzo Declaration") at Para. 17. A true and correct copy of the Expert Declaration of John Rizzo is attached as Exhibit B. In this regard, the function performed by the "bridge computer" called out in the claims is "allow[ing] a user at a user device to make a product purchase at a purchase price from a given vendor having a web site provided by a vendor computer over a communications network." . *See* the Rizzo Declaration at Para. 17. The corresponding structure is a special purpose bridge computer programmed to perform the disclosed algorithm in which the bridge computer (1) receives a messaging protocol call, such as a SOAP call, from a vendor computer to connect a user to the bridge computer so that the user may proceed with the purchase transaction, (2) displays a "buy" window in response to the messaging protocol call, such as a SOAP call, made by the vendor computer, (3) receives login information from a user (unless already logged in) making a "buy" selection via the "buy" window, and (4) processes the transaction. *See* the Rizzo Declaration at Para. 17.

23. As noted in the "Background of the Invention" section of the '979 Patent, there were problems with Internet based ecommerce systems incorporating only vendor and service provider "websites" and "Internet portals" in that users who desired to shop at a vendor not associated with a service provider that the user has an account with may not be able to make a purchase from that vendor without first securing an account at one of the vendor's service provider(s). *See* the Rizzo Declaration at Para. 18. To address this issue, the claimed

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invention of the'979 patent employs a bridge computer that "allows the vendor at which the user is purchasing the product to check in a central location (bridge computer 20) to determine whether the user has sufficient funds for the purchase." *See* '979 Patent at 7:29-38; *See* the Rizzo Declaration at Para. 18.. Although a vendor and its customers may be associated with any number of service providers, using the centralized approach of the '979 Patent, the vendor no longer needs to interface directly with service providers to facilitate a customer transaction. *See* Rizzo Declaration at Para. 18. In addition, users no longer needed to focus on whether they are using a service provider with whom the vendor has a relationship. *See* '979 Patent at 1:21-27; *See* the Rizzo Declaration at Para. 18.

24. To adopt this centralized approach, the inventor, Dr. Marvin Ling, of the '979 Patent had to address how it would be implemented from a technical standpoint in an environment in which vendor computers, service provider computers and user devices would ordinarily interact over computer networks without the benefit of such a centralized scheme. *See* the Rizzo Declaration at Para. 19.

25. The solution Mr. Ling adopted was to employ a bridge computer that takes control of the processing of the transaction upon receipt of a messaging protocol call, such as a SOAP call, made by the vendor computer to the bridge computer, which would then automatically generate a "Buy" or transaction window with which a consumer could login/interact with the bridge computer for that particular transaction. *See* the Rizzo Declaration at Para. 20. In this way, the bridge computer was placed in an optimal position to exchange information with the vendor computers, service provider computers and user devices to facilitate each transaction in a manner that did not require direct communication between vendor and service provider computers. *See* the Rizzo Declaration at Para. 20. Thus, vendor computers did not have to deal with the technical complexity of maintaining numerous interfaces with current service providers or adding such interfaces for additional services providers to

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mitigate the potential for lost sales by consumers who did not rely on the vendors existing service providers to facilitate payment. *See* the Rizzo Declaration at Para. 20.

26. Although the bridge computer is applied in an ecommerce system, it addresses technical computer integration issues which exist solely in the context of computer networks with a technical solution that is tied to a specially programmed "bridge computer" implemented in a way that improves the functionality of the computer system in which it is employed by reducing the number and complexity of integrations required between vendors and service providers. *See* the Rizzo Declaration at Para. 21.

27. The use of the claimed "bridge computer" does not simply reflect the use of generic computer technology. There are other ways of implementing a centralized scheme for facilitating transactions among vendors, service providers and users without operating a bridge computer in the manner called for by the claims of the '979 Patent. *See* the Rizzo Declaration at Para. 22. For example, a vendor computer need not rely on a bridge computer to display the "Buy" window in response to a messaging protocol call. *See* Rizzo Declaration at Para. 22.

28. The claimed invention of the '979 Patent does not cover all ways of implementing a centralized scheme for facilitating transactions among vendors, service providers and users. *See* the Rizzo Declaration at Para. 23. Even with respect to those centralized scheme's which may operate using a centralized computer; such a computer may be programmed using alternative algorithms which are not equivalent to disclosed algorithm. *See* the Rizzo Declaration at Para. 23.

29. The prior art cited during the prosecution of the '979 Patent (e.g., U.S. Patent No. 6,205,433 to Boesch et al., U.S. Patent No. 6,535,880 to Musgrove et al., U.S. Patent No. 6,567,850 and Canadian Patent Application No. 2,305,233 to Ganesan) does not disclose information that would lead one skilled in the art to conclude that the operation of the

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"bridge computer" including its disclosed algorithm reflected a conventional approach to addressing the vendor/service provider integration issues mentioned above. *See* the Rizzo Declaration at Para. 24.

30. The computer-based OpenBucks Service meets every limitation of independent claim 1 and dependent claims 4, 7, 12, and 13 of the '979 Patent, and OpenBucks has been placed on notice of infringement by way its receipt of GTX's notice letter of May 2, 2017 and accompanying claim chart.

31. Upon information and belief, the computer based OpenBucks Service utilizes an electronic commerce system.

32. Upon information and belief, the electronic commerce system utilized by OpenBucks includes "a bridge computer to allow a user at a user device to make a product purchase at a purchase price from a given vendor having a web site provided by a vendor computer over a communications network." In particular, the OpenBucks bridge computer allows a consumer to make a product purchase from a vendor (e. g., Topgolf Media) having a website (e.g., www.wgt.com) hosted on a computer on the Internet. At least one consumer, using a computer or mobile device, has made a product purchase at a purchase price from a vendor (e.g., Topgolf Media) via the Internet using the OpenBucks Service which relies on the OpenBucks bridge computer.

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33. Upon information and belief, the excerpt below from an OpenBucks presentation shows a website,www.wgt.com:

https://techcrunch.com/video/openbucks-startup-battlefield-presentation/517175525/

34. Upon information and belief, once selected for purchase, the OpenBucks bridge computer, allows a consumer to purchase the virtual credits for a purchase price by hosting a transaction web page (e.g., https://pay.openbucks.com/payment_v2.php) to permit the user to make the purchase, as shown below:

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https://techcrunch.com/video/openbucks-startup-battlefield-presentation/517175525/

35. Upon information and belief, each vendor (e.g., TopGolf Media) in the OpenBucks network is associated with at least one service provider (*i.e.*, OpenBucks) of a plurality of service providers (e.g., OpenBucks and at least one of the following SUBWAY, CVS/Pharmacy, Dollar General, Pacific Coffee, EPlus Online).

36. Upon information and belief, each of the plurality of service providers has a service provider computer. By way of example, upon information and belief, OpenBucks and SUBWAY each have a service provider computer.

37. Upon information and belief, multiple consumers each have a user account maintained by at least one of the service providers. By way of example, upon information and belief, at least one consumer has an OpenBucks account by way of the acquisition of an OBucks gift card, which is OpenBucks' branded gift card that it markets to consumers, or OpenBucks Credits. In addition, at least one consumer has a Subway account by way of the acquisition of a SUBWAY gift card.

38. Upon information and belief, the OpenBucks bridge computer has debited a consumer's account by the purchase price when the consumer purchases the product (e.g., virtual credits) from the given vendor (e.g., TopGolf Media). By way of example, upon information and belief, the OpenBucks bridge computer has debited a consumer's account associated with an OBucks gift card or OpenBucks Credits when the consumer payed using an OBucks gift card or OpenBucks Credits, respectively. Alternatively, upon information and belief, the OpenBucks bridge computer debited a consumer's account associated with a SUBWAY gift card when the consumer pays using a SUBWAY gift card.

39. Upon information and belief, OpenBucks bridge computer has determined from among the plurality of service providers (e.g., SUBWAY, CVS/Pharmacy, Dollar General, Pacific Coffee, OpenBucks, EPlus Online) whether the given vendor is associated with the

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same service provider (i.e., OpenBucks) with which the user's account is maintained or is associated with a different service provider (e.g., SUBWAY).

40. Upon information and belief, if the service provider (i.e., OpenBucks) with which the user's account is maintained is the same as the service provider (i.e. OpenBucks) with which the vendor is associated, the given vendor (*e.g.*, Topgolf Media) is credited by the purchase price using funds from the user's account (OBucks account or OpenBucks Credits account) at that same service provider (i.e., OpenBucks).

41. Upon information and belief, if the service provider (e.g., SUBWAY) with which the user's account is maintained is different from the service provider (i.e., OpenBucks) with which the vendor is associated, the given vendor (e.g., Topgolf Media) is credited by the purchase price using funds from the service provider (i.e., OpenBucks) with which the vendor is associated and using the OpenBucks bridge computer to reimburse that service provider (i.e., OpenBucks) with the purchase price using funds from the user's account (e.g., SUBWAY gift card account). Upon information and belief, the reimbursement of the funds occurs during the settlement process when OpenBucks receives payment based on the crediting of the vendor (e.g., Topgolf Media).

42. OpenBucks is liable for direct infringement of one or more claims of the '979 Patent under 35 U.S.C. §271(a).

43. Upon information and belief, OpenBucks has known of the '979 Patent and its infringement since May 8, 2017, following its receipt of GTX notice letter dated, May 2, 2017. The letter identified the '979 Patent, alleged that OpenBucks infringed the '979 Patent by facilitating prepaid instrument-based payment transactions through its distribution network, and provided a claim chart explaining OpenBuck's infringement on an element-by-element basis, of claims 1, 4, 7, 12 and 13 of the '979 Patent.

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Willful Infringement

44. Upon information and belief, OpenBucks had actual knowledge of the '979 Patent at least as of its receipt of GTX's notice letter of May 2, 2017 and accompanying claim chart.

45. Upon information and belief, upon gaining knowledge of the '979 Patent, it was, or became, apparent to OpenBucks that the operation of its computer based OpenBucks Service resulted in infringements of the '979 Patent. Notwithstanding its knowledge (or willful blindness thereto), OpenBucks continues to operate its computer-based OpenBucks Service.

46. OpenBucks has willfully infringed, and continues to willfully infringe the '979 Patent.

47. As a direct and proximate cause of the direct infringement by OpenBucks, GTX is being and will continue to be substantially and irreparably harmed in its business and property rights unless OpenBucks is enjoined from operating its computer-based OpenBucks Service in the United States.

48. In addition, GTX is suffering injury for which it is entitled to monetary relief as a result of OpenBucks's direct infringement.

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PRAYER FOR RELIEF

WHEREFORE, GTX respectfully requests that this Court enter a Judgment and Order:

(a) Declaring that the Patent-In-Suit is valid and enforceable;

(b) Declaring that OpenBucks has infringed and continues to infringe, either literally or under the doctrine of equivalents, at least one valid and enforceable claim of the Patent-In-Suit under 35 U.S.C. §271(a);

(c) Declaring that OpenBucks's infringement is willful and that GTX is entitled to treble damages under 35 U.S.C. § 284 for past infringement;

(d) Awarding GTX damages adequate to compensate for OpenBucks's infringement, but in no event less than a reasonable royalty for past infringement;

(e) Either (1) permanently enjoining OpenBucks, its officers, agents, servants, and employees and those persons in active concert or participation with any of them from operating the computer-based OpenBucks Service, or (2) awarding damages in lieu of an injunction, in an amount consistent with the fact that for future infringement OpenBucks will be an adjudicated infringer of a valid patent, and trebles that amount in view of the fact that the future infringement will be willful as a matter of law;

(f) Declaring that this is an exceptional case under 35 U.S.C. §285 and awarding GTX its attorney's fees, costs, and expenses, based in part on, but not limited to, OpenBucks's willful infringement; and

(g) Granting GTX such other and further relief as this Court deems just, proper, and equitable.

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JURY DEMAND

Plaintiff hereby requests a trial by jury pursuant to Rule 38 of the Federal Rules of Civil Procedure.

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DATED: July 19, 20177

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EXHIBIT A

US006876979B2

(12) **United States Patent**
Ling

(10) **Patent No.: US 6,876,979 B2**
(45) **Date of Patent: Apr. 5, 2005**

(54) **ELECTRONIC COMMERCE BRIDGE SYSTEM**

(75) Inventor: **Marvin T. Ling**, Scottsdale, AZ (US)

(73) Assignee: **Paybyclick Corporation**, Phoenix, AZ (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 224 days.

(21) Appl. No.: **10/217,871**

(22) Filed: **Aug. 12, 2002**

(65) **Prior Publication Data**

US 2004/0030605 A1 Feb. 12, 2004

(51) **Int. Cl.**[7] **G06F 17/60**
(52) **U.S. Cl.** **705/26**; 705/39
(58) **Field of Search** 705/26, 27, 39, 705/78

(56) **References Cited**

U.S. PATENT DOCUMENTS

6,205,433 B1 * 3/2001 Boesch et al. 705/26
6,535,880 B1 * 3/2003 Musgrove et al. 707/10
6,567,850 B1 * 5/2003 Freishtat et al. 709/224

FOREIGN PATENT DOCUMENTS

CA 2305233 * 10/2000

OTHER PUBLICATIONS

Business Wire, May 1, 2002, "EasyLink and Cyclone Commerce Team Up to Provide Enhanced EDIINT Services for Enterprises; Hybrid Solution Enables Connectivity Between all Trading Partners".*

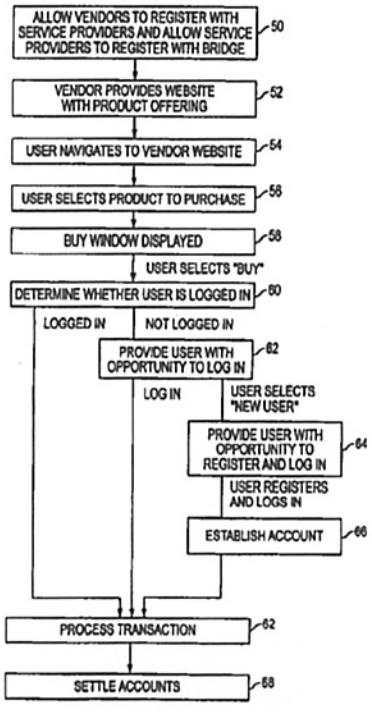
* cited by examiner

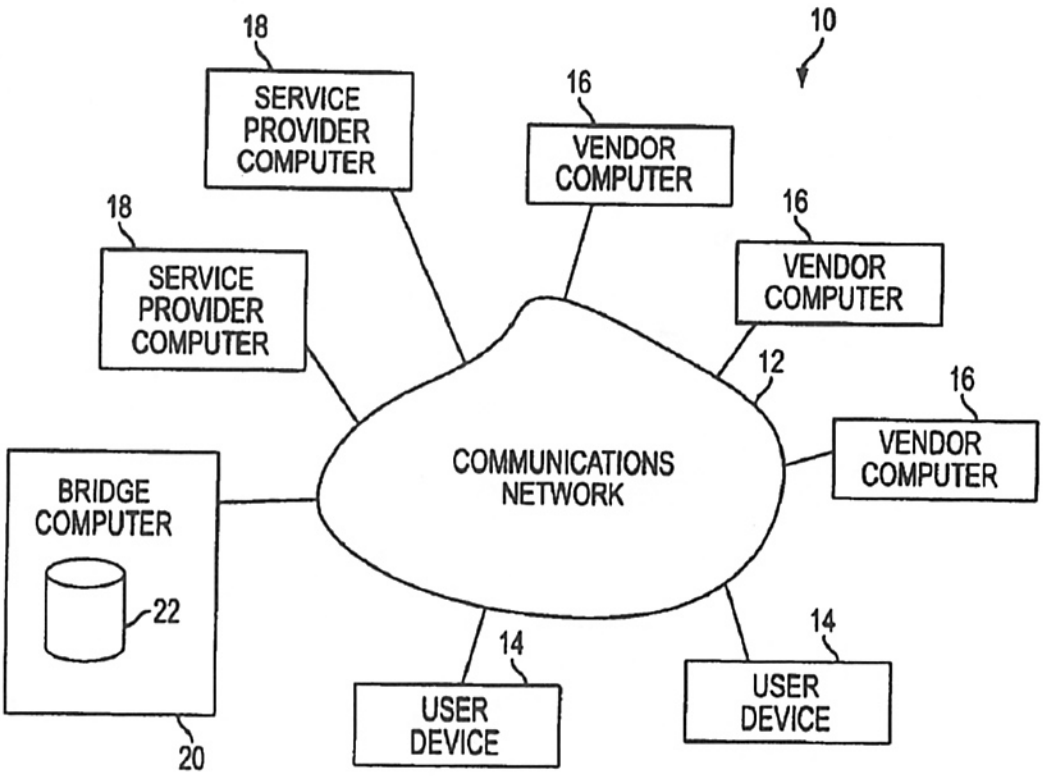
Primary Examiner—Richard Chilcot
(74) *Attorney, Agent, or Firm*—Nicola A. Pisano, Esq.; Luce, Forward, Hamilton & Scripps LLP

(57) **ABSTRACT**

Systems and methods are provided for supporting electronic commerce in an environment in which multiple service providers each have associated vendors and in which a user may maintain an account at a service provider that is different from the service provider associated with the vendor from which a user makes an on-line purchase. Both tangible products and electronic content products may be sold using the system. A bridge computer may be used to facilitate interactions between service providers. The bridge computer may be used to implement service charge fees, to reimburse service providers for credit card transaction fees, to reimburse service providers with appropriate referral fees, and to otherwise support operation of the system.

13 Claims, 6 Drawing Sheets




10
18
SERVICE PROVIDER COMPUTER
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VENDOR COMPUTER
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SERVICE PROVIDER COMPUTER
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VENDOR COMPUTER
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COMMUNICATIONS NETWORK
BRIDGE COMPUTER
22
20
14
USER DEVICE
14
USER DEVICE

FIG. 1

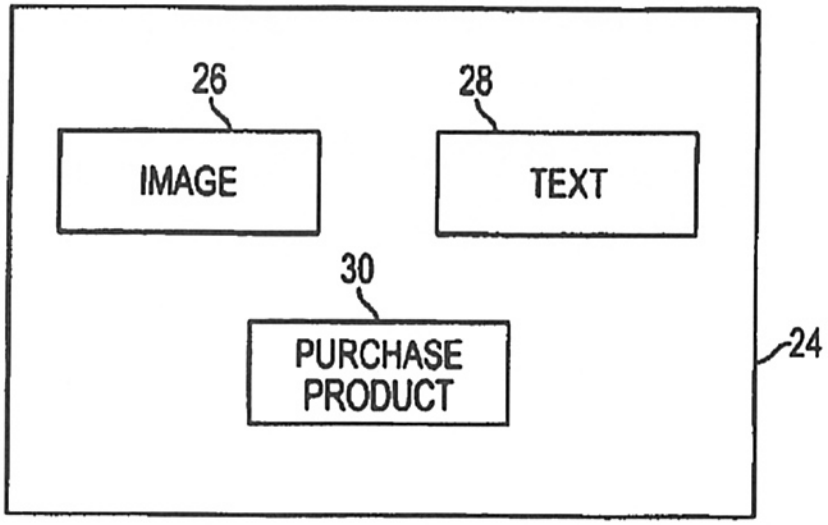
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IMAGE
TEXT
30
PURCHASE PRODUCT
24

FIG. 2

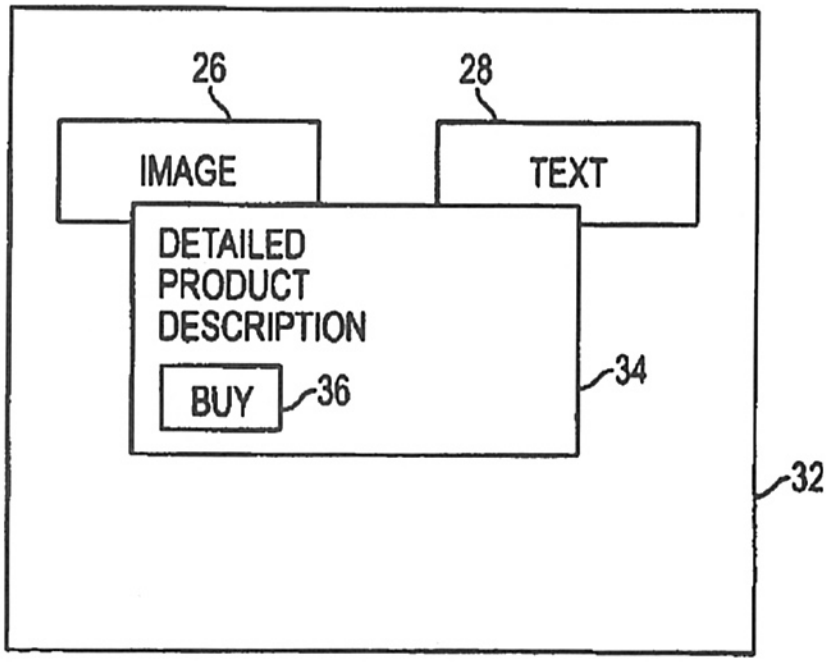
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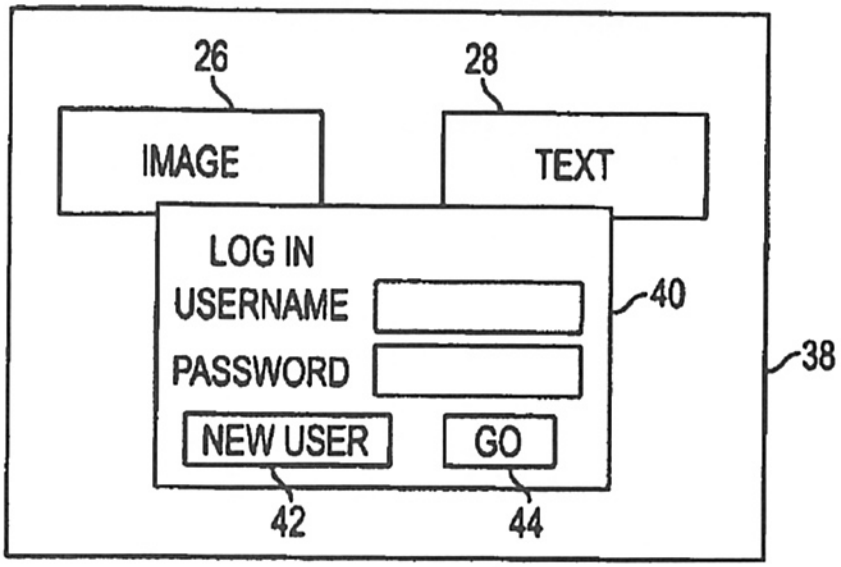
IMAGE
TEXT
DETAILED PRODUCT DESCRIPTION
BUY
36
34
32

FIG. 3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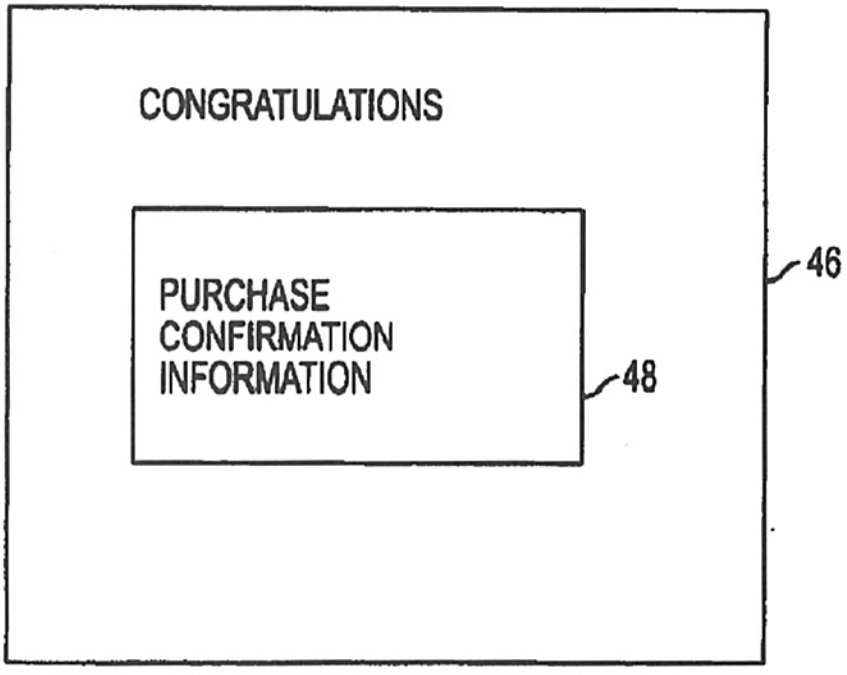
28
IMAGE
TEXT
LOG IN
USERNAME
PASSWORD
40
38
NEW USER
GO
42
44

FIG. 4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PURCHASE
CONFIRMATION
INFORMATION
46
48

FIG. 5

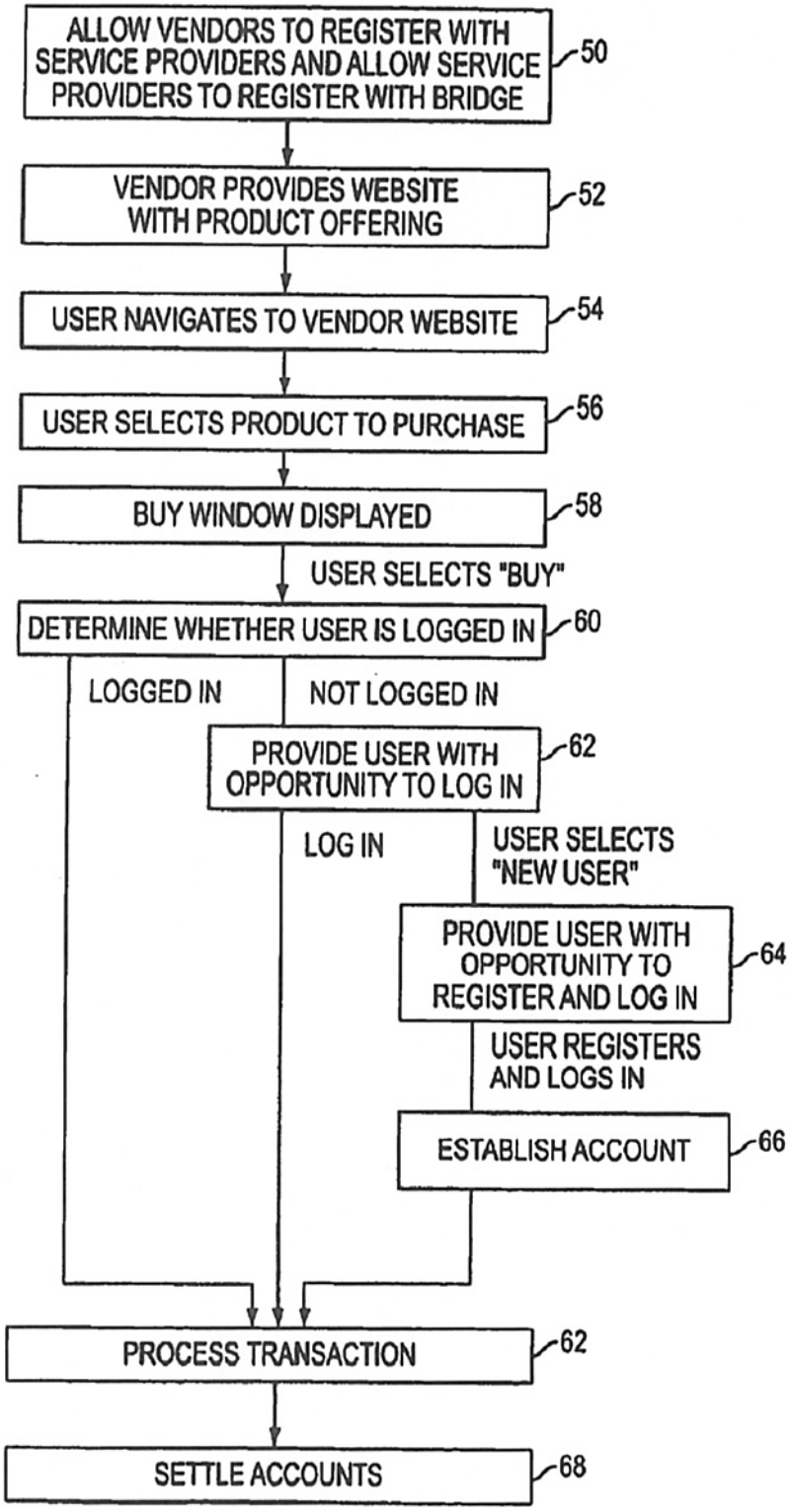
ALLOW VENDORS TO REGISTER WITH SERVICE PROVIDERS AND ALLOW SERVICE PROVIDERS TO REGISTER WITH BRIDGE
50
VENDOR PROVIDES WEBSITE WITH PRODUCT OFFERING
52
USER NAVIGATES TO VENDOR WEBSITE
54
USER SELECTS PRODUCT TO PURCHASE
56
BUY WINDOW DISPLAYED
58
USER SELECTS "BUY"
DETERMINE WHETHER USER IS LOGGED IN
60
LOGGED IN
NOT LOGGED IN
PROVIDE USER WITH OPPORTUNITY TO LOG IN
62
LOG IN
USER SELECTS "NEW USER"
PROVIDE USER WITH OPPORTUNITY TO REGISTER AND LOG IN
64
USER REGISTERS AND LOGS IN
ESTABLISH ACCOUNT
66
PROCESS TRANSACTION
62
SETTLE ACCOUNTS
68

FIG. 6

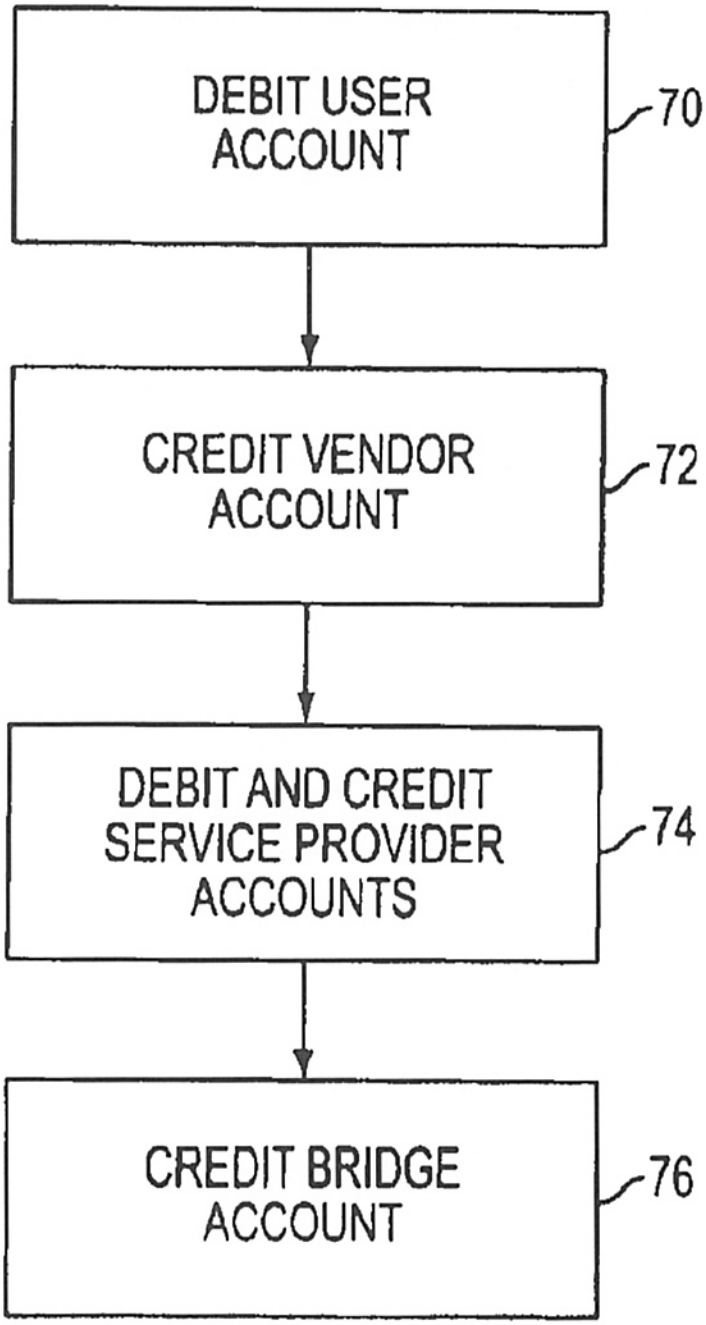
DEBIT USER ACCOUNT
70
CREDIT VENDOR ACCOUNT
72
DEBIT AND CREDIT SERVICE PROVIDER ACCOUNTS
74
CREDIT BRIDGE ACCOUNT
76

FIG. 7

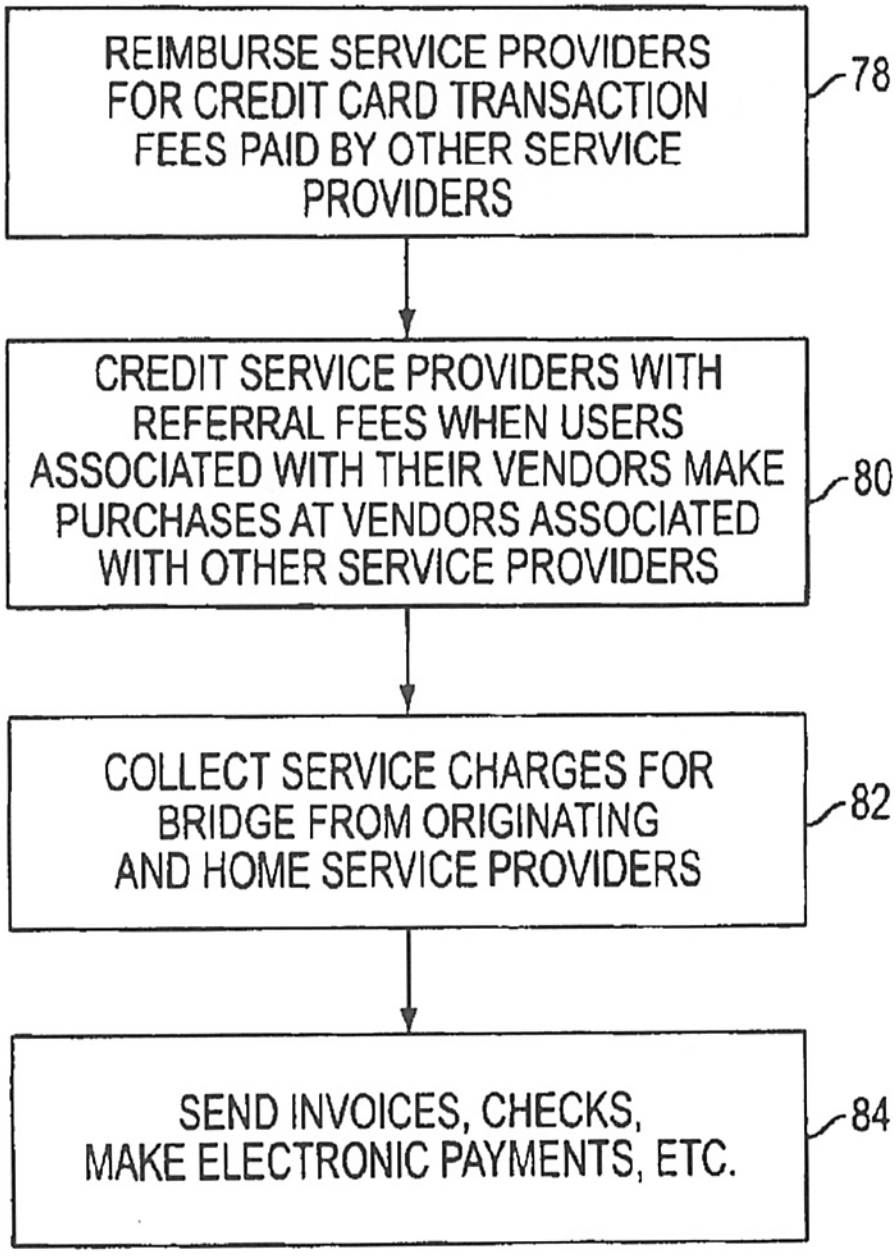
REIMBURSE SERVICE PROVIDERS FOR CREDIT CARD TRANSACTION FEES PAID BY OTHER SERVICE PROVIDERS
78
CREDIT SERVICE PROVIDERS WITH REFERRAL FEES WHEN USERS ASSOCIATED WITH THEIR VENDORS MAKE PURCHASES AT VENDORS ASSOCIATED WITH OTHER SERVICE PROVIDERS
80
COLLECT SERVICE CHARGES FOR BRIDGE FROM ORIGINATING AND HOME SERVICE PROVIDERS
82
SEND INVOICES, CHECKS, MAKE ELECTRONIC PAYMENTS, ETC.
84

FIG. 8

ELECTRONIC COMMERCE BRIDGE SYSTEM

BACKGROUND OF THE INVENTION

This application relates to electronic commerce systems and, more particularly, to systems for facilitating electronic commerce in environments with multiple service providers.

On-line vendors sell a variety of products over the Internet. Users with web browsers may browse a vendor's web site and may purchase products directly from the vendor. Service providers associated with Internet portal sites have attempted to capitalize on their large established user bases by establishing on-line shopping services. These shopping services allow users to shop at multiple vendors without having to establish multiple accounts. Rather, a user may establish a single account with the service provider that is then debited whenever a user shops at one of the vendors associated with that service provider.

Problems with this type of system arises because there are many competing service providers. As a result, users who desire to shop at a vendor that is not associated with a service provider at which they have already established an account are faced with the task of establishing additional user accounts. This is burdensome on the users and discourages purchases.

It is an object of the present invention to provide e-commerce systems that allow users to shop at vendors associated with different service providers without having to establish multiple service provider accounts.

SUMMARY OF THE INVENTION

This and other objects of the invention are accomplished in accordance with the principles of the invention by providing ways in which to allow a user to purchase products from a vendor that is associated with a service provider without requiring the user to have established an account with that service provider. The user may establish an account through one service provider and may use that account to shop at vendor web sites that are associated with different service providers. A bridge computer may be used to support purchase transactions and to facilitate interactions between different service providers.

The bridge computer may be used to maintain information on which vendors are associated with which service providers. The bridge computer may act as a clearinghouse for transactions, so that rival service providers need not interact directly with one another. When a user makes a purchase, the bridge computer may be used to debit the user's account at the appropriate service provider. The user need not know which vendors are associated with a particular service provider.

Funds may be credited to the account of the vendor from which the user is purchasing a product. The service provider with which the vendor is associated may receive a portion of the proceeds from each sale. When the user has an account with one service provider but makes a purchase from a vendor that is associated with another service provider, a referral fee may be paid by the service provider that is associated with the vendor to the service provider at which the user has the account. The bridge computer may be used to facilitate payment of the referral fee.

Service providers that have incurred credit card service charges on behalf of users who were depositing funds into their accounts by credit card may be reimbursed for those charges when purchase transactions are made by those users at vendors associated with other service providers. The bridge computer may also be used to impose a service charge (e.g., on a per-transaction basis or using any other suitable scheme). At the end of each month (or week or other suitable time period), the bridge computer may be used to settle the accounts in the system. The bridge computer may settle accounts by crediting and debiting appropriate parties. For example, the bridge computer may be used to settle accounts by creating electronic or paper invoices for parties who owe funds and by making electronic payments or generating paper checks for parties that are owed funds.

Further features of the invention, its nature and various advantages will be more apparent from the accompanying drawings and the following detailed description of the preferred embodiments.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a simplified block diagram of an illustrative system having a bridge computer in accordance with the present invention.

FIG. **2** is an illustrative screen that may be displayed when a user is browsing the web site of a vendor to locate products to purchase in accordance with the present invention.

FIG. **3** is an illustrative screen that may be displayed when a user selects a purchase product option of the type shown in FIG. **2** in accordance with the present invention.

FIG. **4** is an illustrative screen that may be displayed to allow a user to log in to the system in accordance with the present invention.

FIG. **5** is an illustrative screen that may be displayed for a user when the user has purchased a product in accordance with the present invention.

FIG. **6** is a flow chart of illustrative steps involved with using the system of FIG. **1** to support purchase transactions in accordance with the present invention.

FIG. **7** is a flow chart of illustrative steps involved in supporting purchase transactions that involve multiple service providers in accordance with the present invention.

FIG. **8** is a flow chart of illustrative steps involved when the bridge computer is used to settle accounts in accordance with the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

An illustrative system **10** for supporting electronic commerce in accordance with the invention is shown in FIG. **1**. System **10** may be used to allow users to purchase any suitable types of tangible or intangible products. Tangible products that are purchased with system **10** may be delivered by mail. Intangible products such as audio, video, or text products, or computer programs may be delivered electronically.

The various entities in system **10** may communicate using communications network **12**. Communications network **12** may be based on the Internet, local area networks, wide area networks, private networks, or any other suitable networks that support communications between different parties located at respective computers or other suitable electronic devices.

Users may use user devices **14** to browse for products at vendor web sites on vendor computers **16** over communications network **12**. User devices **16** may be desktop or notebook personal computers, personal digital assistants,

wireless telephones, or any other suitable user devices. Product offerings on vendor computers **16** may be provided in the form of web pages organized into web sites. Internet web browsers on user devices **16** may be used to allow the users to browse the web content on vendor computers **16**.

In the arrangement of system **10**, intangible content may be owned by content owners (e.g., record companies, movie studios, publishing companies, or on-line newspapers). The content that is owned by the content owners may be made available for downloading using vendor computers **16** or may be available for downloading using content provider computers that are separate from vendor computers **16**. Such content provider computers are not shown separately from vendor computers **16** in FIG. **1** to avoid over-complicating the drawings.

Vendors at vendor computers **16** may sell any suitable products. For example, one vendor **16** may sell intangible products such as electronically-downloadable songs or tangible products such as compact discs to be delivered by mail. Another vendor may sell shoes or clothing. Yet another vendor may sell books.

Service providers associated with service provider computers **18** may be used to provide Internet services for users. Different service providers may provide different levels of service. For example, some service providers may serve primarily as content aggregators. A service provider of this type may maintain a virtual presence on the web in the form of a web site. The web site may serve as a portal by offering access to many different types of Internet content and services. Access may be provided by providing web links to sites of interest and by hosting original content and services.

Another service provider may serve the same portal function and in addition may offer on-line access to customers (e.g., broadband or dial-up Internet access using an Internet account associated with the service).

These different types of service provider are referred to collectively herein as "service providers" or "Internet service providers."

Vendors may be associated with particular service providers. For example, some vendors may register with a service provider. Registered vendors may be featured in an on-line mall or shopping area of the service provider's web site. A user may establish an account at the service provider. Once the account has been established, the user may purchase products from associated vendors without registering individually with each associated vendor.

Bridge computer **20** and its database **22** may be used to allow the user registered with a particular service provider to purchase products from a vendor that is associated with a different service provider as well as the service provider with which the user has established the account. Bridge computer **20** therefore allows users to shop more easily at a wide variety of vendors without being forced to repeatedly register at different web sites.

Information on the amount of funds stored in the user accounts associated with various service providers may be maintained using database **22** of bridge computer **20**. Vendors may register with or otherwise affiliate with particular service providers. Service provider computers **18** may be used to support on-line registration of vendors over communications network **12** if desired. Information on the vendors that have associated with a particular service provider may be maintained by bridge computer **20** (e.g., in database **22**). For example, information may be stored in database **22** that identifies vendors **1**, **2**, and **3** as being associated with service provider **1** and that identifies vendors **4**, **5**, and **6** as being associated with service provider **2**. A vendor identifier (vendor ID) may be used to identify each vendor. The vendors associated with each service provider may be listed in database **22** by vendor ID.

A user may become associated with a particular service provider by setting up an account. A user may, for example, browse directly to the service provider's web site to set up the account. A user may also be automatically provided with an opportunity to set up an account. For example, when a user without a suitable service provider account first attempts to purchase a product from a vendor associated with a particular service provider, bridge computer **20** may be used to set up the user's account at that particular service provider.

Database **22** may store information on user accounts. This information may include a listing of which users have accounts with each service provider. If a user establishes an account at a particular service provider, the user's account information (e.g., user identifier and password, account balance, etc.) may be stored in a database that is accessible by that user's service provider. The user's service provider may use the user account information in database **22** as a primary or as a backup source of information on the users' accounts. Other service providers may be prevented from directly accessing or adjusting information in such user accounts (e.g., user balance information, etc.). User account funds may be held in a financial institution associated with the service provider or in any other suitable account management system. To avoid over-complicating the drawings, such additional financial institutions are not shown separately in FIG. **1**.

In a typical purchase transaction, a user may browse the Internet to locate a product of interest at a vendor's web site. A typical web page that may be displayed for the user after the user has located a product of interest is shown in FIG. **2**. The web page shown on the user's monitor or screen **24** of FIG. **2** includes an image **26** (e.g., an image of the product), text **28** (e.g., a product description) and a selectable option **30** (e.g., a "purchase product option"). When the user expresses interest in purchasing the featured product by clicking on option **30**, a screen such as screen **32** of FIG. **3** may be displayed for the user on the user's device **14**.

In the example of FIG. **3**, image **26** and text **28** are still displayed. Pop-up product ordering window **34** (a "buy" window) containing buy option **36** is displayed on top of image **26** and text **28**. This is merely one illustrative arrangement. Any suitable web page or pages or screen arrangement may be provided to the user to allow the user to access content of the type shown in buy window **34** or other suitable product ordering features if desired. The user may click on buy option **36** (or may select buy option **36** using any other suitable technique) to purchase the desired product.

With one suitable arrangement, buy window **34** may be displayed by bridge computer **20**. After the user has navigated to the vendor's web site, the user may click on purchase product option **30** (which may be, for example, a web link). Clicking on option **30** causes vendor computer **16** to launch a SOAP (Simple Object Access Protocol) call or other appropriate software. This connects the user to bridge computer **20** to proceed with the purchase transaction. Information that identifies the vendor (e.g., a vendor identifier or vendor ID) and information that identifies the product of interest (e.g., a product identifier or product ID), and other information for the product (e.g., a product description, price information, and other information that

may be displayed in buy window **34**) may be provided to the bridge computer when the SOAP call is made.

If the user is not logged in with an existing user account, bridge computer **20** may provide the user with an opportunity to log in. Bridge computer **20** may, for example, display a login window **40** on the user's screen, as shown in FIG. **4**. Login window **40** may contain regions that allow the user to enter the user's username and password or other suitable authentication information. When the user has finished entering the required information, the user may press enter or select go option **44**. The username and password or other suitable user information (user ID) may be provided to bridge computer **20** to identify the user. If the user is a new user, the user may select new user option **42**.

Selecting new user option **42** directs bridge computer **20** to provide the user with an opportunity to establish a new account. The new account will be associated with the service provider that is associated with the vendor at which the user is shopping (or, if the user is setting up an account directly through a service provider web site, the account will be associated with that service provider). The new account set up process allows the user to select a desired username and password (or other suitable authentication information). The user may also add funds to the account. Any suitable technique may be used to add funds to the account. For example, the user may add funds by credit card deposit, by electronic transfer from an existing account (e.g., an account associated with another service provider, a telephone company, financial institution, or other entity), or by a check or cash deposit. Funds may be maintained in the form of currency or tokens (credits). Information on the user account, the particular service provider with which the user is associated, and other account information (e.g., the amount of funds on deposit, etc.) may be maintained in database **22** of bridge computer **20**. Some or all of this information may also be stored on the appropriate service provider computer **18**.

After the user logs in (or if the user had already been logged in), the purchase transaction may proceed. The purchase amount may be deducted from the user's account and a purchase confirmation may be provided to the user. Illustrative purchase confirmation **48** is shown as being displayed on illustrative screen **46** on a user device in FIG. **5**. The screens such as screens **24** (FIG. **2**), **32** (FIG. **3**), **38** (FIG. **4**), and **46** (FIG. **5**) are merely illustrative examples. Information on the product ordering process may be displayed for the user at user device **16** using any suitable format and using any suitable number of screens.

To consummate a purchase transaction, the vendor processes the user's order (e.g., to confirm the desired appropriate delivery method) and receives a credit for the amount of the user's purchase amount. The vendor may receive the funds for the purchase from the service provider that is associated with that vendor. The user's actual funds may be on deposit with either that service provider (i.e., the service provider that is associated with the vendor) or with another service provider (i.e., a service provider that is not affiliated with that vendor).

During the purchase transaction, bridge computer **20** determines the identity of the service provider at which the user's account is maintained. The bridge computer uses the information on the identity of the vendor that is selling the product and the associations between various vendors, service providers, and user accounts that is stored in database **22** to determine whether the service provider associated with the vendor at which the user is purchasing the product is the same as the service provider at which the user has his account or is a different service provider.

If the user has an account at the service provider associated with the vendor from which the product is being purchased, that account may be debited appropriately, the vendor's account may be credited, and the bridge may charge a service charge for the transaction.

If the user has an account at a different service provider, bridge computer **20** may transfer funds from that service provider account to the service provider with which the vendor is associated (who then pays the vendor). This allows the vendor to be paid for the purchase, even though the vendor is not associated with the service provider at which the user has the account and even though the service provider that is associated with the vendor is different from the user's service provider.

Bridge computer **20** may allocate funds between service providers using any suitable scheme. For example, the service providers may each have accounts at bridge computer **20** that are reconciled at the end of each month (or other suitable time period). As another example, funds may be transferred electronically between the user's service provider and the vendor's associated service provider in real time. Funds may also be transferred directly from the user's account to the vendor. These are merely illustrative examples. Any suitable approach for allowing the user to use funds at the user's account when the service provider associated with that account differs from the service provider associated with the vendor at which the user is purchasing the desired product may be used if desired.

Illustrative steps involved in using system **10** to support a purchase transaction are shown in FIG. **6**. At step **50**, each vendor may register with a particular service provider. Vendors may or may not be allowed to register with more than one service provider. The service providers may register with the bridge service. The registration processes of step **50** may be handled manually or automatically by using computers **16**, **18**, and **20** to support on-line registration functions.

After the relationships between vendors and service providers have been established and after information on these relationships has been gathered and stored in database **22** of bridge computer **20**, vendors may make products available for purchase at step **52**. Vendors may, for example, provide web sites using vendor computers **16**. The web sites may be accessed by the users at user devices **14** over communications network **12** at step **54**.

When a user has used a web browser or other suitable arrangement to navigate to a desired product for purchase, the user may select a suitable purchase option (such as purchase option **30** of FIG. **2**) at step **56**.

When the product purchase option is selected, the vendor computer passes information such as a vendor ID, product ID, and buy window information to bridge computer **20**.

Bridge computer **20** uses this information to display a buy window such as buy window **36** of FIG. **3** or other suitable screen to the user at step **58**.

After the user selects a buy option such as buy option **36** of FIG. **3**, bridge computer **20** determines whether the user is logged in at step **60**. Information on the user's status (whether or not the user is logged in) may be maintained by bridge computer **20**.

If the user is logged in, the purchase transaction may be processed at step **62**. Once a user is logged in, any suitable number of purchase transactions may be processed using

steps **54**, **56**, **58**, **60**, and **62** without requiring the user to log in another time.

If it was determined at step **60** that the user has not logged in, bridge computer **20** may be used to provide the user with an opportunity to log in at step **62**. If the user already has an account at a service provider, the user may log in and the purchase transaction may be processed at step **62**. If the user is a new user and selects new user option **42** (FIG. **4**), bridge computer **20** may provide the user with an on-line opportunity to establish a new account at step **66**. The process of establishing a new account may involve, for example, selecting an appropriate username and password or other authentication information, depositing funds in the account, etc. Funds may be deposited by credit card, by transfer from another account, by check or cash (e.g., by mail), or using any other suitable technique. Funds may be maintained in currency or tokens or any other suitable format or a combination of such formats. Because the user is a new user, bridge computer **20** will preferably establish the new account at the service provider that is associated with the vendor at which the user is attempting to purchase the product that was selected at step **56**. After the new account has been established and the user is logged in, the purchase transaction may be processed at step **62**.

Periodically (e.g., once per day, once per week, once per month, or in real time or at any other suitable interval) the accounts of the vendors, service providers, and bridge may be settled at step **68**.

Illustrative steps involved in the transaction processing of step **62** of FIG. **6** are shown in FIG. **7**. When the user clicks on a suitable option such as buy option **36** of FIG. **3**, the user's account balance is checked to determine whether the user has sufficient funds to cover the desired purchase. Information on the user's account balance may be maintained at bridge computer **20**. This allows the vendor at which the user is purchasing the product to check in a central location (bridge computer **20**) to determine whether the user has sufficient funds for the purchase. The vendor passes the vendor ID and product information (including price information) to the bridge. The bridge may obtain user information (e.g., user ID, password, etc.) directly from the user and may use the user information and information from the vendor to perform the account balance check. For example, bridge computer **20** may use the price information and the user ID to determine whether the user's account has sufficient funds to cover the purchase price. Information on the user's account balance may also be maintained at service provider computer **18** for the service provider with which the user has the account. If desired, the vendor may check the user's account balance through service provider computer **18**. If the user does not have sufficient funds, the user may be provided with an opportunity to deposit additional funds (e.g., by credit card, by transferring funds from another account, by using a check or cash deposit, etc.).

If the user has sufficient funds to cover the user's desired purchase, the user's account is debited at step **70**. The user's account balance information may be updated accordingly on bridge computer **20** and service provider computer **18**. The user's account at the service provider may be debited, even if the user's service provider account is at a service provider that is not associated with the vendor at which the user is making the purchase.

At step **72**, the vendor's account may be credited. The vendor may receive a credit in the form of an addition of funds or credit into the vendor's account at bridge computer **20** or at a computer maintained at any other suitable facility.

The funds or credit for crediting the vendor may be provided by the service provider with which the vendor is associated (i.e., the service provider with which the vendor had registered). Accordingly, at step **74**, this service provider account is debited. If the user's account is at this service provider, the user's account deduction (step **70**) will be used to reimburse the service provider for the funds the service provider transferred to the vendor to cover the purchase price. If the user's account is at another service provider (i.e., a service provider other than the service provider with which the vendor is associated), that service provider's account may be debited and the service provider account for the service provider associated with the vendor may be credited accordingly at step **74**.

Bridge computer **20** may maintain service provider account balance information for handling fund transfers which involve multiple service providers. Because there are costs incurred in operating bridge computer **20**, the bridge computer operator ("bridge") may levy a service charge or fee. The fee may be charged, for example, for each purchase transaction that involves a transfer between the user's service provider's account to the vendor's associated service provider's account when those accounts are at different service providers or may be a monthly charge or other periodic charge. These are merely illustrative examples. Any suitable scheme may be used by bridge computer **20** to levy or collect a service charge for handling transactions between different service providers. The service charge may be credited to an account maintained by bridge computer **20** at step **76**.

Records of the debiting and crediting activities between accounts that are associated with each purchase transaction may be maintained by bridge computer **20** and by vendor computers **16** and service provider computers **18** (to the extent that the certain vendors and service providers are involved in these transactions). Accounts may be reconciled in real time or may be periodically settled (e.g., once per day, once per month, or according to any other suitable predetermined schedule).

Illustrative steps involved in settling accounts maintained in system **10** are shown in FIG. **8**. Credit card companies often charge a transaction fee or "load" to the merchant at which a user makes a credit card purchase. The charge, which may amount to 1–2% of the transaction total, is typically borne by the merchant as a cost of doing business. However, unfairness may result when one service provider maintains an account for a user and that user makes purchases at vendors associated with other service providers. Accordingly, during the account settlement process (or at any other suitable time), the credit card company's transaction fee and "load" charge may be reimbursed to the appropriate service providers. This allows system **10** to remove the financial disincentive that would otherwise be faced by a service provider when it accepts a credit card fund deposit from a user and pays the credit card service fee for the user (as an expected cost of doing business) but eventually transfer those funds to another service provider (i.e., to credit that other service provider because it was the service provider associated with the vendor at which the user makes a purchase). Without a reimbursement scheme, the service provider associated with the vendor at which the user makes a purchase stands to profit (e.g., by 5–50% of the sales price) from the purchase at the associated vendor, even though that service provider never had to incur the credit card service fee imposed by the credit card company when the user deposited funds. The step of reimbursing the service provider that incurred the credit card company service fee

without benefiting directly from the vendor's sale is shown as step **78** of FIG. **8**. This step may be performed (e.g., using bridge computer **20**) as part of the account settlement process or, if desired, it may be implemented in real time (e.g., at an earlier stage of the purchase transaction). These are merely illustrative examples of how system **10** may take into account the fair distribution of credit card company service charges. Any suitable scheme for distributing such charges fairly among the parties of system **10** may be used.

Some service providers may have a large number of associated users. Such users may, for example, be loyal users of the news services or e-mail service provided by or associated with the portal web site supported by a given service provider. These service providers may therefore tend to generate and maintain large numbers of user accounts. Using bridge computer **20** and system **10**, service providers with large user bases may obtain referral fees from other service providers when their users shop at vendor web sites that are associated with such other service providers. The referral fee scheme may also be implemented in a reciprocal fashion (e.g., to reimburse smaller service providers when their users purchase products at the vendors associated with larger service providers).

Bridge computer **20** may be used to maintain referral fee information in database **22**. Each purchase transaction originates at a vendor. Database **22** may be used to maintain information on which service provider is associated with the user's account. Database **22** may also maintain information on vendor affiliations. When a user purchases products from a vendor that is associated with the same service provider at which the user is maintaining an account, no service-provider-to-service-provider fees are due. When, however, a user purchases products from a vendor that is associated with a service provider other than the service provider at which the user is maintaining his account, the service provider who is maintaining the account may be entitled to a referral fee from the service provider who benefited directly from the sale (e.g., by obtaining a portion of the vendor's profit on the sale). The referral fee schedule that is used may be different for different service providers and may or may not be implemented at bridge computer **20**. The process of crediting appropriate service providers with referral fees is shown as step **80** of the settlement process steps of FIG. **8**, but this process may be performed at any suitable stage of the purchase transaction process or operation of system **10** if desired. Moreover, bridge computer **20** may, if desired, maintain raw purchase statistics that may be used by service providers **18** in determining what referral fees should be paid to each other. The use of bridge computer **20** to implement the service provider account debiting and crediting associated with the service provider referral fee scheme is optional. If bridge computer **20** is used to maintain referral fee information for the service providers, bridge computer **20** may do so by updating the service provider accounts in database **22** appropriately during the settlement process (or at any other suitable time).

As shown by step **82**, bridge computer **20** may be used to gather service charges. Such service charges may be levied on a per-transaction basis or may be levied on a monthly basis (or according to any other suitable predetermine schedule). The transaction fees may serve to offset the costs associated with operating bridge computer **20** and the services associated with system **10**. Service charges may be charged for purchase transactions that originate at a vendor that is associated with the user's service provider and for purchase transactions that originate at vendors that are associated with other service providers. If desired, the service charges for each of these two types of transactions may be different.

At step **84**, accounts may be settled (e.g., at the end of the month) by electronic funds transfers to and from the appropriate entities (e.g., service providers) or by invoicing entities (e.g., service providers) that owe money and by mailing checks to entities (e.g., service providers) that are owed money. If desired, vendor accounts may be settled at the same time that service provider accounts are settled (e.g., at the end of each month or according to any other suitable schedule). Alternatively, vendor's may be provided with funds in real time to cover each purchase, so that vendors do not need to advance funds for the service providers. These arrangements or any other suitable arrangements may be used to reconcile accounts between service providers and vendors, between service providers, and between service providers and the bridge and between users and other entities.

The foregoing is merely illustrative of the principles of this invention and various modifications can be made by those skilled in the art without departing from the scope and spirit of the invention.

The invention claimed is:

1. A method for using an electronic commerce system having a bridge computer to allow a user at a user device to make a product purchase at a purchase price from a given vendor having a web site provided by a vendor computer over a communications network, wherein the vendor is associated with at least one of a plurality of service providers wherein each of the plurality of service providers has a service provider computer, and wherein the user has a user account maintained by at least one of the plurality of service providers, the method comprising:

debiting the user's account by the purchase price when the user purchases the product from the given vendor;

determining from among the plurality of service providers, using the bridge computer, whether the given vendor is associated with the same service provider with which the user's account is maintained or is associated with a different service provider; and

if the service provider with which the user's account is maintained is the same as the service provider with which the vendor is associated, crediting the given vendor by the purchase price using funds from the user's account at that same service provider and, if the service provider with which the user's account is maintained is different from the service provider with which the vendor is associated, crediting the given vendor by the purchase price using funds from the service provider with which the vendor is associated and using the bridge computer to reimburse that service provider with the purchase price using funds from the user's account.

2. The method defined in claim **1** further comprising using the bridge computer to reimburse service providers for credit card service charge fees paid by other service providers.

3. The method defined in claim **1** further comprising crediting service providers with referral fees when users associated with those service providers make purchases at vendors associated with other service providers.

4. The method defined in claim **1** further comprising using the bridge computer to collect a service charge for a bridge operator for the product purchase.

5. The method defined in claim **1** further comprising using the bridge computer to settle accounts between service providers according to a predetermine schedule.

6. The method defined in claim 1 further comprising using the bridge computer to maintain a database that contains information on which vendors are associated with which service providers.

7. The method defined in claim 1 wherein the vendor offers the product for sale on a web site and wherein the method further comprises using the bridge computer to provide the user at the user device with a screen that includes a buy option when the user selects an on-screen option indicating that the user desires to purchase the product.

8. The method defined in claim 1 further comprising: using the bridge computer to receive a vendor ID from the given vendor; and using the bridge computer to determine using the vendor ID whether the given vendor is associated with the same service provider with which the user has the account or at a different service provider.

9. The method defined in claim 1 further comprising:

using the bridge computer to receive a vendor ID from the given vendor and to receive a user ID from the user; and

using the bridge computer to determine from the vendor ID and user ID whether the given vendor is associated with the same service provider at which the user has the account or at a different service provider.

10. The method defined in claim 1 further comprising using the bridge computer to allow a user without an account to create a new service provider account when that user attempts to purchase products from a vendor, wherein the new account is created with the service provider associated with that vendor.

11. The method defined in claim 1 further comprising using the bridge computer to maintain accounts for multiple service providers, wherein the bridge computer credits some of the service provider accounts and debits other service providers accounts to reimburse service providers that have incurred credit card transaction service charges when users deposit funds with those service providers using credit cards but whose funds are provided to other service providers in payment of products purchased through vendors associated with those other service providers.

12. The method defined in claim 1 wherein the product is a tangible product, the method further comprising using a web site on the vendor computer to offer the product for sale.

13. The method defined in claim 1 wherein the product is an intangible product, the method further comprising using a web site on the vendor computer to offer the product for sale.

* * * * *

EXHIBIT B

Expert Declaration of John Rizzo

Introduction

1. I am John Rizzo. I am a consultant having expertise in ecommerce systems, including mobile ecommerce systems. I have previously provided testimony on behalf of Google Inc. in *Oracle America, Inc. v. Google Inc.*, Case No. CV 10-03561 (N.D. Cal). My business address is 3 Hacienda Court, San Rafael 94901. My CV is attached as Exhibit 1 to my Declaration.
2. I am being compensated by GTX for my time in providing this expert analysis at the rate of $250 per hour.

Qualifications

3. Attended Brooklyn College until 1986.
4. From 1997 to 1998, I was an Application Developer at Ascend Communications where I designed and implemented an online Purchase Order Application for employees. From 1998 to 2000, I was a Lead Software Engineer for AirTouch where I participated in vendor management for a web portal and worked on application development for a WAP gateway.
5. From 2000 to 2001, I was a Senior Software/Systems Engineer as part of an Advanced Technology Team at Vodafone, where I worked on the design and development of the Vodafone Global Internet Platform. From 2001 to 2002, I was a Senior Software/Systems Engineer as part of Technical Business Development at Vodafone

where I worked on mobile device related issues. From 2002 to 2004, I was a Chief Architect of Mobile Services and Integration at Vodafone where I worked on the global rollout of a content download platform to support Voldafone Live! Services.

6. From 2004-2012, I was Vice President of Technology Strategy & Business Development at Aplix Corp. where I worked on next generation mobile data technologies. From 2013-2017, I was Senior Vice President of the Americas for Ubitus Inc. where I worked on interactive media solutions for gaming and VR, consumer game streaming services, and SaaS solutions for game streaming.

Assignment

7. I have been asked to interpret the claim limitation, "a bridge computer to allow a user at a user device to make a product purchase at a purchase price from a given vendor having a web site provided by a vendor computer over a communications network," appearing in claim 1 of U.S. Patent No. 6,876,979 (the '979 Patent) from the point of view of one skilled in the art.
8. I have also been asked to assess whether the use of the "bridge computer" reflects a specific technological modification of a known computer system to solve a problem or improve the functionality or capability of that computer system.
9. I have reviewed the '979 Patent and its file history, including the references cited during prosecution to assist me with my assigned tasks.

Claim Construction for the "Bridge Computer" Limitation

10. The '979 Patent includes a phrase that is significant for my review and consideration of the claims of the '979 Patent. In particular, claim 1 of the '979 Patent from which all other claims depend includes the phrase "a bridge computer to allow a user at a user device to make a product purchase at a purchase price from a given vendor having a web site provided by a vendor computer over a communications network."
11. I have been informed that if one of ordinary skill in the art understands the words of a claim to call out a function without including sufficient structure for performing that function, then those words shall be limited to the corresponding structure for performing that function disclosed in the specification and structural equivalents of the same.
12. I have also been informed that in those instances in which the disclosed structure is a computer that is programmed to carry out an algorithm, the corresponding structure is the special purpose computer programmed to perform the disclosed algorithm.
13. In claim 1 of the '979 Patent, the "bridge computer" performs the function of "allow[ing] a user at a user device to make a product purchase at a purchase price from a given vendor having a web site provided by a vendor computer over a communications network." Although claim 1 calls out a "bridge computer" as performing the recited function, the claim does not appear to explicitly recite structure in connection with the "bridge computer" that is adequate to perform this function.
14. The specification of the '979 Patent discusses a "bridge computer 20" at length.

15. The specification discloses that the bridge computer 20 is programmed to perform a specific algorithm in order to carry out the recited function. In particular, the specification discloses an algorithm, in which the bridge computer receives a messaging protocol call, such as a SOAP call, from a vendor computer to connect a user to the bridge computer so that the user may proceed with the purchase transaction, displays a "buy" window in response to the messaging protocol call, such as a SOAP call, made by the vendor computer, receives login information from a user (unless already logged in) making a "buy" selection via the "buy" window and processes the transaction. *See* U.S. Patent No. 6,876,979 at 4:44-5:49, 6:49-7:24.

16. It is my opinion that the disclosed algorithm is adequate to perform the function of "allow[ing] a user at a user device to make a product purchase at a purchase price from a given vendor having a web site provided by a vendor computer over a communications network," because the disclosed algorithm "allow[s] a user to make a product purchase at a purchase price from a given vendor having a web site provided by a vendor computer over a communications network" via the "bridge computer". In particular, the vendor computer hands off the processing for the purchase transaction to the bridge computer via a messaging protocol call, such as a SOAP call, and upon receipt of the messaging protocol call, such as a SOAP call, the bridge computer displays a "buy" window with which the user can interact to login and make a "buy" selection so that the bridge computer can, in turn, process the transaction.

17. In summary, it is my opinion that the "a bridge computer to allow a user at a user device to make a product purchase at a purchase price from a given vendor having a web site provided by a vendor computer over a communications network" should be interpreted to

cover the disclosed corresponding structure that performs the recited function and equivalents of that structure. In this regard, the **function** performed by the "bridge computer" called out in the claims is "allow[ing] a user at a user device to make a product purchase at a purchase price from a given vendor having a web site provided by a vendor computer over a communications network." The **corresponding structure** is a special purpose bridge computer programmed to perform the disclosed algorithm in which the bridge computer (1) receives a messaging protocol call, such as a SOAP call, from a vendor computer to connect a user to the bridge computer so that the user may proceed with the purchase transaction, (2) displays a "buy" window in response to the messaging protocol call, such as a SOAP call, made by the vendor computer, (3) receives login information from a user (unless already logged in) making a "buy" selection via the "buy" window, and (4) processes the transaction.

The Use of a "Bridge Computer" Reflects a Specific Technological Modification that Improves the Functionality or Capability of Known Computer Systems Used in Electronic Commerce

18. As noted in the "Background of the Invention" section of the '979 Patent, there were problems with Internet based ecommerce systems incorporating only vendor and service provider "websites" and "Internet portals" in that users who desired to shop at a vendor not associated with a service provider that the user has an account with may not be able to make a purchase from that vendor without first securing an account at one of the vendor's service provider(s). To address this issue, the claimed invention of the'979

patent employs a bridge computer that "allows the vendor at which the user is purchasing the product to check in a central location (bridge computer 20) to determine whether the user has sufficient funds for the purchase." 7:29-38. Although a vendor and its customers may be associated with any number of service providers, using the centralized approach of the '979 Patent, the vendor no longer needs to interface directly with service providers to facilitate a customer transaction. In addition, users no longer needed to focus on whether they are using a service provider with whom the vendor has a relationship. See 1:21-27.

19. To adopt this centralized approach, the inventor, Dr. Marvin Ling, of the '979 Patent had to address how it would be implemented from a technical standpoint in an environment in which vendor computers, service provider computers and user devices would ordinarily interact over computer networks without the benefit of such a centralized scheme.

20. The solution Mr. Ling adopted was to employ a bridge computer that takes control of the processing of the transaction upon receipt of a messaging protocol call, such as a SOAP call, made by the vendor computer to the bridge computer, which would then automatically generate a "Buy" or transaction window with which a consumer could login/interact with the bridge computer for that particular transaction. In this way, the bridge computer was placed in an optimal position to exchange information with the vendor computers, service provider computers and user devices to facilitate each transaction in a manner that did not require direct communication between vendor and service provider computers. Thus, vendor computers did not have to deal with the technical complexity of maintaining numerous interfaces with current service providers or adding such interfaces for additional services providers to mitigate the potential for

lost sales by consumers who did not rely on the vendors existing service providers to facilitate payment.

21. Although the bridge computer is applied in an ecommerce system, it addresses technical computer integration issues which exist solely in the context of computer networks with a technical solution that is tied to a specially programmed "bridge computer" implemented in a way that improves the functionality of the computer system in which it is employed by reducing the number and complexity of integrations required between vendors and service providers.

22. The use of the claimed "bridge computer" does not simply reflect the use of generic computer technology. To be sure, there are other ways of implementing a centralized scheme for facilitating transactions among vendors, service providers and users without operating a bridge computer in the manner called for by the claims of the '979 Patent. For example, a vendor computer need not rely on a bridge computer to display the "Buy" window in response to a messaging protocol call.

23. So the claimed invention of the '979 Patent does not cover all ways of implementing a centralized scheme for facilitating transactions among vendors, service providers and users. Even with respect to those centralized scheme's which may operate using a centralized computer; such a computer may be programmed using alternative algorithms which are not equivalent to disclosed algorithm.

24. I have reviewed the prior art cited during the prosecution of the '979 Patent (e.g., U.S. Patent No. 6,205,433 to Boesch et al., U.S. Patent No. 6,535,880 to Musgrove et al., U.S. Patent No. 6,567,850 and Canadian Patent Application No. 2,305,233 to Ganesan) and do not find that those references disclose information that would lead one skilled in the art to

conclude that the operation of the "bridge computer" including its disclosed algorithm reflected a conventional approach to addressing the vendor/service provider integration issues already discussed. Nor, based on my experience, am I aware of such information.

25. I declare under penalty of perjury that the foregoing is true and correct, and if called as a witness would testify competently thereto.

26. Dated July 17, 2017

John Rizzo

Exhibit 1

John Rizzo

jrizzo1@gmail.com
3 Hacienda court
San Rafael, CA, 94901
415 233 2610
http://www.linkedin.com/in/rizzo

Summary:

I have a deep passion for technology and where it will bring us in the future. I focus on vision but with a realistic view on how to achieve success. As a futurist and innovator, I know that without business success even the best innovation will fall to the wayside.

As an executive I get the job done by using cutting edge business, strategic and technical skills. I also have a strong ability to truly connect with customers.

My experience is drawn from various responsibilities that include: coding as a senior software/staff engineer for advanced technology teams, technical business development, software architecture, mergers and acquisitions experience, advising start-ups in the mobile and web space on technology/investments/product positioning/customer goals and in my current role as SVP Americas, Products and Innovation for Ubitus.

Experience:

Ubitus Inc S.V.P. Products & Innovation Americas, San Francisco, CA
2013 – 2017

- Currently wearing many hats (Start-up life!) heading up sales, biz dev, tech biz dev, customer relations, lead sourcing, content sourcing with US publishers, market intelligence, and solutions engineering.
- BD for interactive streaming media solutions covering areas like gaming and VR.
- Worked to position company solution in the ad space, VR space, and gaming space.
- Helped to identify IP and shape IP applications to the PTO.
- Headed up sales for contracts with EA, Warner Bros, Comcast, and Gazillion.
- Negotiated multi-year contract with Gazillion to be the publisher in Asia for Marvel Heroes MMO.
- Lead for relationships with gaming industry partners.
- Speaker at gaming industry events such as Cloud Gaming USA and EA cloud gaming event.
- Building business pipeline in the US

Aplix Corporation V.P. Technology Strategy
San Francisco, CA
2004 - 2013

- Responsible for future product strategies and direction of use of new technologies.
- Reported to president and chairman of the board
- Worked closely with strategic partners DoCoMo, IBM, Oracle, Motorola, Nokia and others to build industry support for next generation mobile data technologies.
- Lead for license contract negotiations with Sun, Oracle, and IBM on Java branded solutions.
- Brought into Aplix key industry IP that put the company in a position of strength with large partners.
- Negotiation lead for sale of IP resulting in 5 million USD in revenue for the company.
- Strategic lead for use of base technologies to expand the Aplix product portfolio.
- Technical business development covering current roadmaps, new products, and innovation projects.
- Strategic positioning of patents for defensive and offensive uses.
- Responsible for strategic industry relationships to influence standard bodies technical and behavioral directions.

- Aplix representative for mobile standards organizations:
  - Java Community Process Executive committee for ME
  - My company won JCP Member of the year in 2010 for leadership.
  - Java Community Process, sitting on JSR 232, JSR 233, JSR 246, JSR 211, and JSR 248 & 249
  - OSGi Mobile Expert Group
  - OMTP
  - OMA DM
  - Board of directors for Limo
  - Executive committee for Limo

Xpressmo Advisor, Founding team member, and Board Director
Marin CA based mobile application platform start up
2004 – 2016

- Advised on product features and development to meet current and future market needs.
- Company business models
- Formed company strategies for working with mobile operators and device manufactures.
- Worked with management team to create the investor message and product presentation.
- Advised in presenting to potential investors and strategic partners.
- Helped build team from engineering to executive management.

Vodafone Group PLC Senior Technologist/Chief Architect
Secondment: Mobile Services and Integration
Dusseldorf, Germany
2002 – 2004

- On international assignment in Germany as a Vodafone US employee for the duration of two years.
- Manager of 10+ engineers.
- Technical support on contracts and licensing to Vodafone Global Supply Chain Management and Legal departments for contract drafting and negotiations.
- Chief Architect for the rollout of the global content download platform to support Vodafone Live!
- Chief Architect for the VSCL (Vodafone Service Class Library
- Chief Architect for flagship device the Sharp GX-10 (3GSM Consumer device of the year 2003).
- Chief Architect for the rollout of six Vodafone Live devices.
- Vodafone Group representative for the Java Community Process.
- Chief Architect for the next generation Service Architecture for Vodafone Live!
- Conducted informational technical workshops covering wireless data services architectures and standards for Vodafone Group member companies Omnitel, D2, Vodafone UK, Vodafone NZ, Vodafone J-Phone, Vodafone IR, Vodafone Sweden, Vodafone NL, Verizon, and more.
- Vodafone expert resource for wireless data/device security related issues

Vodafone Group PLC (Vodafone Global Platform) Senior Staff Engineer: Technical Business Development
Walnut Creek, CA 2001 - 2002

- Manager of 4 engineers.
- Vodafone lead for the Java Community Process MIDP 1.0 & MIDP 2.0 (Mobile Information Device Profile) expert group.
- Vodafone lead for the Java Community Process JSR 124 Client Provisioning expert group.
- Vodafone Global lead for OTA provisioning of content to mobile devices.
- Formed and launched the Vodafone J2ME Community, consisting of sixteen Vodafone operators world wide
- Provided technical knowledge and strategy to Vodafone Group PLC R&D.
- Responsible for all technical projects with Vodafone affiliate J-Phone in Japan.

- Worked on developing technical business relationships with Java (J2ME) technology vendors.
- Headed up efforts for the Vodafone Group PLC developers program.
- Headed up R&D effort for Vodafone alert management system from inception through product.
- Technical and business evaluations of technology providers for devices and Core Platform.

Vodafone Group PLC (VGP) 2000 – 2001 Senior Software/Systems Engineer: Advanced Technology Team
Walnut Creek, CA

- Development team lead for WML UI and Site Transcoding.
- Worked on the design and development of the Vodafone Golbal Internet Platform.
- Systems integration with products such as iPlanet web server, ATG Dynamo application and personalization server, LADP, and third party content providers.
- Worked on system part architecture using JAVA and XML for Transcoding content to device specific WML.
- Team Lead for the delivery of the Vodafone Global Platform R2 to NZ.
- Headed up Vodafone efforts in the J2ME arena as part of an international workgroup that consisted of members from Japan, UK, and Italy.
- Member of the Advanced Technology Team.
- Did technical evaluations for Marketing and Business Development on Location Based Services.
- Responsible for technical evaluations of vendors and content providers systems for J2ME.

Vodafone/AirTouch Cellular Inc. Lead Software Engineer:
1999 – 2000

AirTouch Cellular Inc. Lead Software Engineer:
1998 – 1999

Ascend Communications. Application Developer:
1997 – 1998

Action Technologies Inc. Technical Support Specialist:
1996 – 1997

RYNO Imaging Systems Inc. Application Developer:
1995- 1996

Education:

Brooklyn Technical High School
Brooklyn College, Brooklyn, NY

Special:

Advisory board member for:

1. Xpressmo (Mobile entertainment portal applications)
2. MZT (Mobile social network application and service)
3. Redline (Web 2.0 Legal collaboration site)

Featured speaker at JavaOne subjects:
J2ME deployments worldwide, Vodafone J2ME Content delivery OTA, J2ME MIDP 2.0 security, Web services and J2ME
Speaker at Cloud Gaming USA and EA cloud gaming event (2015 & 2016)