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Egendorf

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(54) **INTERNET BILLING METHOD**

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(51) **Int. Cl.**[7] **G06F 17/60**

(52) **U.S. Cl.** **705/40**; 705/41; 705/42; 235/380; 235/379

(58) **Field of Search** 705/40, 41, 42; 235/380, 379; 379/127

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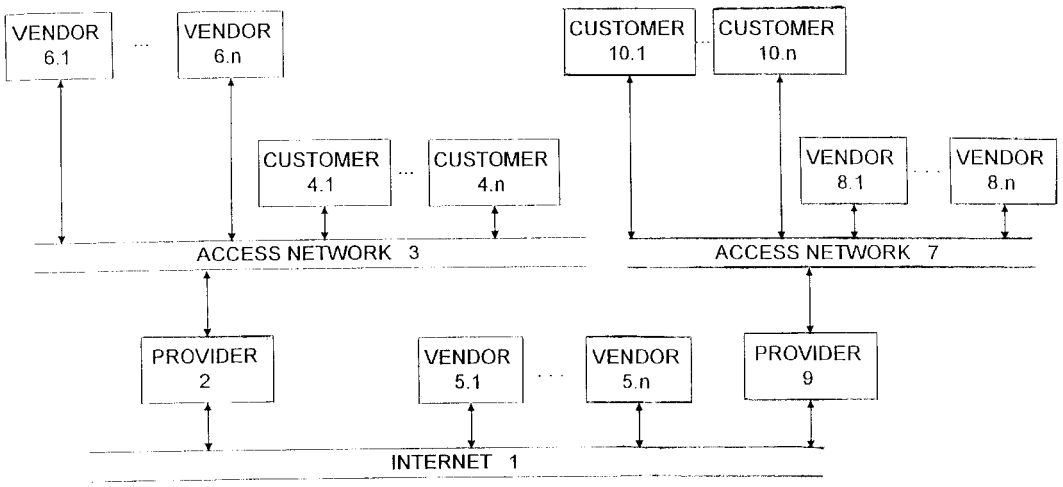
(57) **ABSTRACT**

An Internet billing method comprises establishing an agreement between an Internet access provider and a customer, and an agreement between the Internet access provider and a vendor, wherein the Internet access provider agrees with the customer and the vendor to bill the customer and remit to the vendor for products and services purchased over the Internet by the customer from the vendor. The provider creates access to the Internet for the customer. When the customer orders a product or service over the Internet from a vendor, transactional information transmitted between the customer and the vendor is also transmitted to the provider. The provider then bills the transaction amount to the customer and remits a portion of the transaction amount to the vendor, keeping the differential as a fee for providing the service. As a result of this method, there is no need for any customer account numbers or vendor account numbers to be transmitted over the Internet, thereby maintaining the security of that information.

21 Claims, 3 Drawing Sheets



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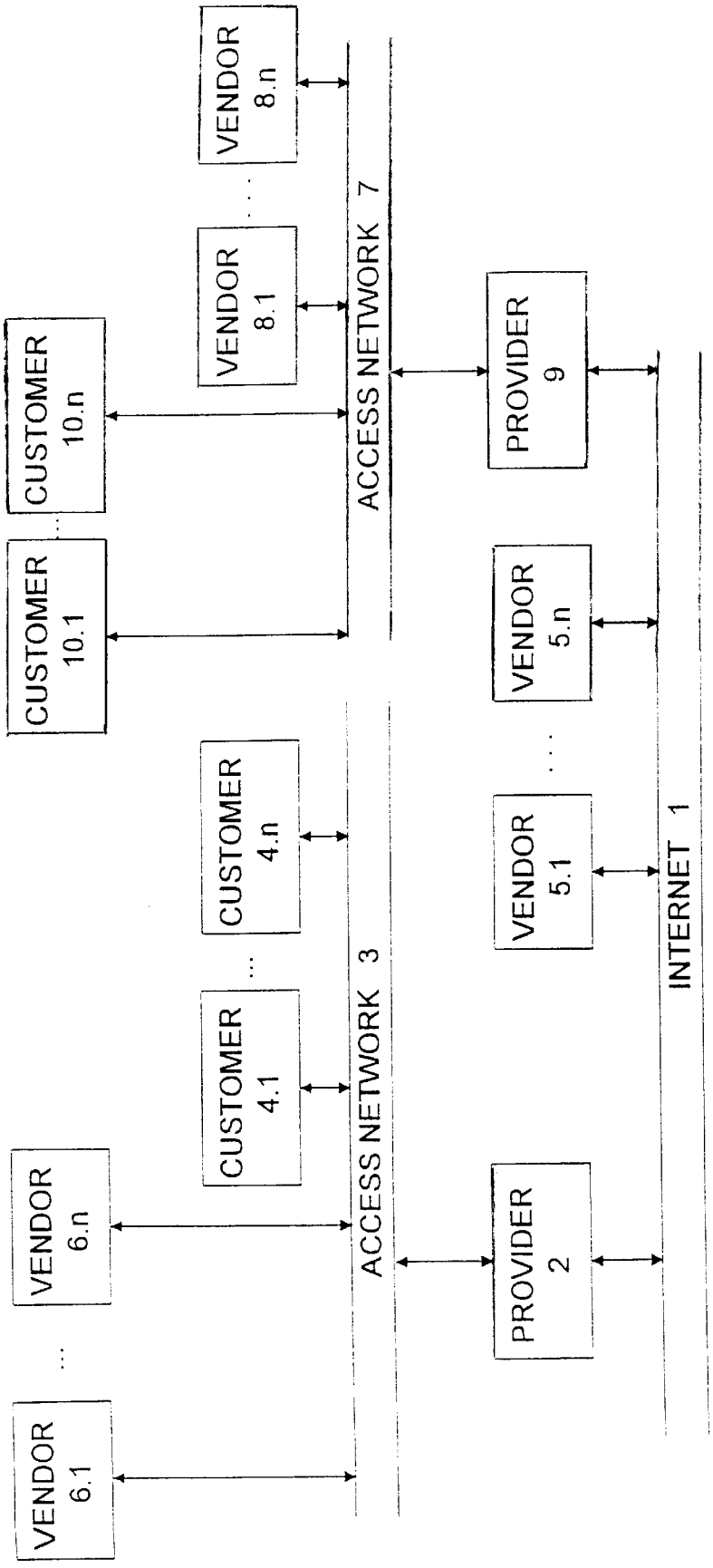
VENDOR 6.1
VENDOR 6.n
CUSTOMER 4.1
CUSTOMER 4.n
CUSTOMER 10.1
CUSTOMER 10.n
VENDOR 8.1
VENDOR 8.n
ACCESS NETWORK 3
ACCESS NETWORK 7
PROVIDER 2
PROVIDER 9
VENDOR 5.1
VENDOR 5.n
INTERNET 1

FIG. 1

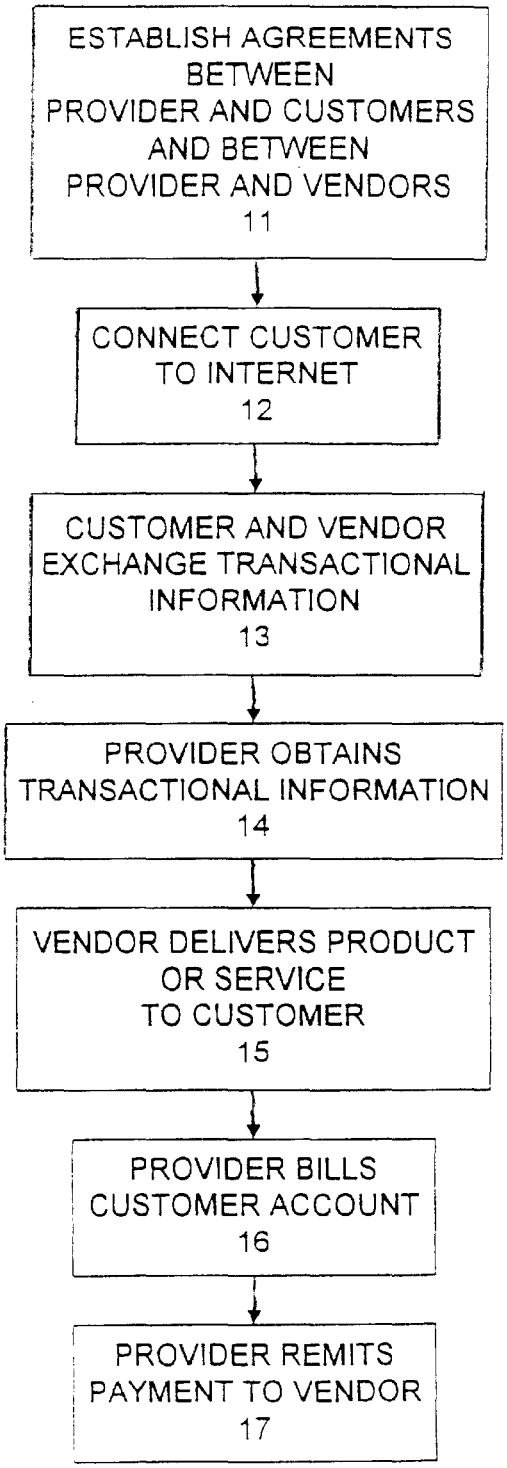
ESTABLISH AGREEMENTS BETWEEN PROVIDER AND CUSTOMERS AND BETWEEN PROVIDER AND VENDORS
11
CONNECT CUSTOMER TO INTERNET
12
CUSTOMER AND VENDOR EXCHANGE TRANSACTIONAL INFORMATION
13
PROVIDER OBTAINS TRANSACTIONAL INFORMATION
14
VENDOR DELIVERS PRODUCT OR SERVICE TO CUSTOMER
15
PROVIDER BILLS CUSTOMER ACCOUNT
16
PROVIDER REMITS PAYMENT TO VENDOR
17

FIG. 2

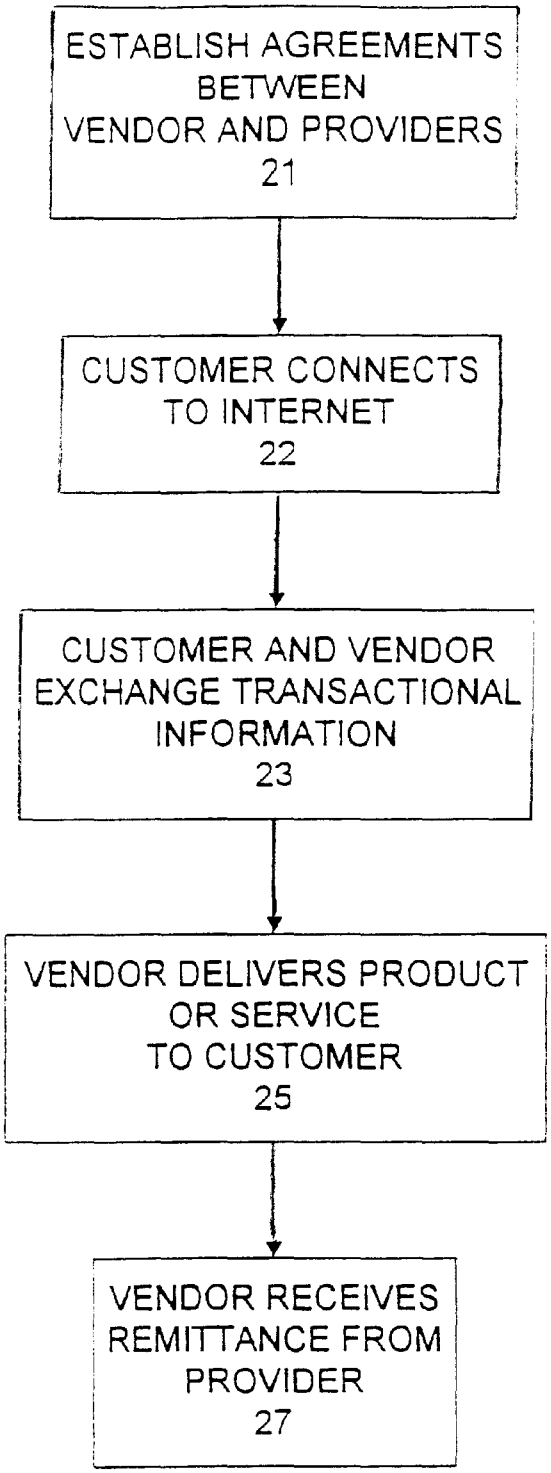
ESTABLISH AGREEMENTS BETWEEN VENDOR AND PROVIDERS
21
CUSTOMER CONNECTS TO INTERNET
22
CUSTOMER AND VENDOR EXCHANGE TRANSACTIONAL INFORMATION
23
VENDOR DELIVERS PRODUCT OR SERVICE TO CUSTOMER
25
VENDOR RECEIVES REMITTANCE FROM PROVIDER
27

FIG. 3

billing, or charge to a credit card, or charge to an account of the user which could be an account specific to the Internet or could be a more general account, such as an on-line computer services account, a cable television account, a telephone account, or a bank account.

Once the prearrangements have been completed, using the provider's service to connect to the Internet typically involves calling a telephone number of the provider and being automatically connected through the provider's equipment to the Internet.

Once connected to the Internet, the customer can browse around until an item is located that the customer wishes to purchase, at which time the customer will follow the instructions created by the vendor, exchange transactional information, and ultimately agree to purchase something by taking an appropriate action. In the course of making the purchase, the means of delivery of the goods or service will be established. Depending on the type of goods, delivery can be made, for example, by mail (e.g., in the case of a purchase of a book), by courier service (e.g., in the case of a purchase of flowers), or by electronic transmission over the Internet (e.g., in the case of delivery of an electronic newsletter or piece of software) The remaining element of the purchase transaction is the manner in which the customer pays the vendor.

In accordance with the present invention, the provider has made arrangements with vendors who wish to sell goods and services over the Internet to the customers of the provider. The provider agrees to do the billing associated with such sales for the vendors, and as part of the agreement, the provider and the vendor have agreed on the manner in which the provider will remit funds to the vendor. Examples of payment include payment by check, credit to the vendor's credit card merchant account, or credit to another account of the vendor's, such as the vendor's cable television account, telephone account, or bank account. The account of the vendor to be credited need not be with the provider. The arrangements that are made will depend on the vendor's desires and the capabilities of the provider. For example, if the vendor anticipates many small transactions and the provider is a telephone company, they can agree that the provider will credit the vendor's existing telephone account for amounts under some nominal amount and credit the vendor's credit card merchant account for larger amounts. If the vendor anticipates large transactions, then they may agree that the provider will pay by check or direct credit to the vendor's bank account.

In a typical transaction in accordance with the present invention, from the customer's point of view all use of the Internet appears to be conventional. Depending upon the prearrangements made between the provider and the customer and between the provider and the vendor, the customer can charge a purchase, for example, to a credit card, to a cable television account, to a telephone account or to a bank account. The account of the customer to be billed need not be with the provider. For example, the customer may be using one telephone company as an access provider and a second telephone company as a telephone service provider and the account to be billed is that with the second telephone company. The customer specifies which account is to be billed by an indication to the provider, but neither the customer nor the vendor has to transmit any account numbers over the Internet, because it is the provider, not the vendor, who submits the charge to the credit card company, the cable television company, the telephone company, or to another account of the customer, or who debits the bank account of the customer, and the provider already has been given, during the course of making prearrangements with the customer and the vendor, the appropriate account numbers of both the customer and the vendor. The provider sends this information to the appropriate party, and may do so by the same secure means customarily used for similar transactions not made over the Internet.

From the vendor's point of view, the transaction is as secure as a transaction made over the telephone with a credit card. If the vendor wishes, the vendor may verify with the provider that the address supplied by the customer or shipment of the goods has been authorized by the customer in the same manner in which such verification would be made for the same transaction made over the telephone with a credit card. In addition, because such a verification does not require the transmission of any account numbers of the customer, the verification can be done over the Internet as part of the transaction transmission itself if the provider and the vendor have prearranged to do so.

From the provider's point of view, the provider is made aware that the customer has authorized the charge by monitoring the data being sent over the Internet through the provider's equipment between the customer and the vendor. This can be done, for example, by specifying a specific code which, when sent between the customer and the vendor, indicates to the provider that a transaction has been completed. When the customer has made a purchase, the provider charges the transaction amount to the agreed account of the customer and remits the agreed portion of that amount to the vendor, keeping the differential as the provider's charge for making the service available.

These and other features and advantages of the present invention will become apparent from the following detailed description of the invention with reference to the attached drawings, wherein:

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a block diagram of a system for carrying out the billing method according to the present invention;

FIG. **2** is a flow chart of one embodiment of the method according to the present invention; and

FIG. **3** is a flow chart of another embodiment of the method according to the present invention.

DETAILED DESCRIPTION OF THE INVENTION

Referring to FIG. **1**, a system for carrying out the method of the present invention is shown. In that system, the Internet is shown schematically as network **1** to which providers **2**, **9**, vendors **5**.1–**5**.n, **6**.1–**6**.n and **8**.1–**8**.n, and customers **4**.1–**4**.n and **10**.1–**10**.n (where n is an integer to indicate a range from one to many) are connected in different ways.

Provider **2** is connected to access network **3** and the Internet **1** and provides access to the Internet **1** for customers **4**.1–**4**.n and vendors **6**.1–**6**.n connected to access network **3**. Access network **3** can be a telephone network, a cable television network, an on-line services network such as Compuserve, American On-Line, or Prodigy, or a private Internet access network. Similarly, provider **9** is connected to access network **7** and the Internet **1** and provides access to the Internet **1** for customers **10**.–**10**.n and vendors **8**.1–**8**.n. Vendors **5**.1–**5**.n access the Internet directly by their own equipment.

In accordance with the method shown in the flow chart of FIG. **2**, for example, in step **11** provider **2** establishes agreements with vendors **5**.1–**5**.n who are connected directly

to the Internet, with vendors **6.1–6**.n who access the Internet via access network **3** and provider **2**, and with vendors **8.1–8**.n who are-connected to the Internet **1** via access network **7** and provider **9**, to bill customers **4.1–4**.n for goods and services purchased by them over the Internet from vendors **5.1–5**.n, **6.1–6**.n and **8.1–8**.n. Provider **2** also agrees to remit a portion of the collected money back to the vendors. Provider **2** also establishes an agreement with each of customers **4.1–4**.n. These agreements provide that the provider will bill the customer for goods and services purchased by them over the Internet. The billing will be done to billing accounts established in connection with the agreements. The billing accounts can be, for example, credit card accounts, telephone accounts, cable television accounts, on-line services accounts, or bank accounts. The accounts need not be with the provider if the provider has a billing agreement in place with the party with whom the account was established.

As part of the services of the provider to customers **4.1–4**.n, the customer is connected to the Internet **1** in step **12** at a desired time, typically by making contact via modem. Once connected to the Internet, the customer can interface with any one of vendors **5.1–5**.n, **6.1–6**.n and **8.1–8**.n in order to find out about products or services offered by those vendors.

When one of customers **4.1–4**.n makes the decision to order a product or service from one of vendors **5.1–5**.n, **6.1–6**.n and **8.1–8**.n, in step **13** an exchange of transactional information occurs between the customer and the vendor. This exchange may include identifying information relating to the customer, such as the customer's Internet address, information relating to the products or services to be purchased, including the transaction amount, the manner and time of delivery, and a reference number to identify the order. The vendor or the customer also can produce a verification code signifying that a transaction has been completed which can be received by provider **2**.

In step **14**, the transactional information is obtained by provider **2**. The communication can be a separate transmission by the vendor or the customer to provider **2**, or provider **2** can extract the information from the exchange of information taking place between the customer and the vendor through equipment of provider **2**. Provider **2** can then send verifying information to one or both of the customer and vendor to indicate that the transaction has been approved, if approval of a third party, such as credit card company, is required. Most importantly, the entire transaction takes place without the need of communicating the customer's credit card or other account number aver the Internet **1**.

The product or service is delivered to the customer in step **15** and the appropriate customer account is billed by provider **2** in step **16**. Provider **2** then remits the agreed payment in the appropriate manner to the vendor in step **17**, keeping the differential as a service charge for the services rendered by provider **2**. Steps **15**, **16** and **17** may be performed in any order.

As can be seen from FIG. **1**, the method according to the present invention can be carried out in many ways. For example, referring to FIG. **3**, vendor **5.1** in step **21** can establish remitting agreements with provider **2** and provider **9** to remit to vendor **5.1** a portion of a transaction amount billed to the billing account of any one of customers **4.1–4**.n and **10.1–10**.n.

Similarly, each of vendors **6.1–6**.n can establish a remitting agreement with provider **9** for transactions carried out over the Internet between each of vendors **6.1–6**.n and customers **10.1–10**.n.

A customer connects to the Internet in step **22**. The customer exchanges transactional information with the vendor in step **23** and the vendor delivers a product or service to the customer in step **25**, either before or after the vendor receives remittances from the provider in step **27**.

In accordance with another feature or the present invention, prior to the billing of the transaction amount to the account of the customer, and after obtaining the transactional information, the provider can obtain approval from a third party to bill the transaction amount to the billing account. This is particularly true in the case where the billing account is a credit card account or a bank account. In that instance, approval must be obtained from a third party, i.e., the bank issuing the credit card or with whom the bank account was established. Where the account is with the provider, approval would be obtained from the provider itself. In a preferred embodiment of the present invention, the approval can be obtained over the Internet and most preferably during the communication between the customer and the vendor.

In accordance with a further feature of the present invention, the customer can specify a particular billing account, for example; a credit card account, a bank account, a telephone number account, a cable television account or an on-line services account at the time that the billing agreement is established with the provider. The specification can provide that one account will be used for certain transactions, and a different account for other transactions, for example, a telephone account for transactions less than $5.00, and a bank account for transactions of at least $5.00. Thereafter, whenever the transaction amount is to be billed, it will be billed to that specified billing account. Alternatively, the customer can specify a plurality of billing accounts, for example, an AMEX account, a VISA account, a Mastercard account at the time that the billing agreement is established. When the transactional information is communicated, it will include an identification of which of those plurality of billing accounts the customer wants billed, without, however, specifying the account number of the account. Thus the customer can merely indicate the account by the "brand" name AMEX, VISA or Mastercard or the customer can identify it as the first account, second account or third account on a list previously established with the provider.

As noted above, the billing account is not necessarily with the provider, that is, it can be with a third party such as a bank issuing a credit card, or a bank at which the customer has a bank account. Alternatively, the provider can be a first telephone company, but the billing account can be with a second telephone company and charged by the first telephone company to the telephone number account of the customer with the second telephone company, as is customarily done in connection with conventional telecommunications services.

In accordance with the invention, the remitting can be by means of sending money or by crediting a vendor account such as a credit card merchant account, a bank account, a telephone number account, a cable television account or an on-line services account.

In a preferred embodiment of the present invention, the step of establishing the remitting account comprises specifying a particular vendor account to which the portion of the transaction amount will be remitted. The specification can provide that one account will be used for certain transactions, and a different account for other transactions, for example, a telephone account for transactions less than

$5.00, and a bank account for transactions of at least $5.00. In an alternative embodiment of the present invention, the step of establishing the remitting agreement comprises the vendor specifying a plurality of vendor accounts to which a portion of the transaction account can be remitted. Thus when the transactional information is communicated, the vendor can identify which one of the plurality of vendor accounts the amount is to be remitted to without, however, specifying the specific account number.

The vendor account can be an account with the provider or an account with a third party such as a credit card merchant account, or bank account, with a bank, or a cable television account with a cable television company.

It is understood that the embodiments described hereinabove are merely illustrative and are not intended to limit the scope of the invention. It is realized that various changes, alterations, rearrangements and modifications can be made by those skilled in the art without substantially departing from the spirit and scope of the present invention.

What is claimed is:

1. An Internet billing method for a plurality of customers and a plurality of vendors of products or services for transactions over the Internet between a purchasing customer of the plurality of customers and a selling vendor of the plurality of vendors, wherein, for each purchase transaction, a transaction amount is charged to the purchasing customer, and an amount is remitted to the selling vendor, comprising the steps by a third party of:

a) establishing a billing agreement with the purchasing customer, and a remitting agreement with the selling vendor, to bill the purchasing customer, and to remit to the selling vendor, for products and services purchased over the Internet by the purchasing customer from the selling vendor;

b) providing a communications link through equipment of the third party between the purchasing customer and the selling vendor through which the purchasing customer obtains information from the selling vendor with respect to a purchase of a product or service by the purchasing customer from the selling vendor;

c) obtaining at least one billing authorization for the purchase;

d) charging the transaction amount to the purchasing customer in accordance with the billing agreement; and

e) remitting an amount related to the purchase to the selling vendor in accordance with the remitting agreement.

2. The method according to claim **1**, wherein the at least one billing authorization is obtained by the third party from a communication sent by the purchasing customer to the third party.

3. The method according to claim **1**, wherein the at least one billing authorization is obtained by the third party from a communication sent by the selling vendor to the third party.

4. The method according to claim **1**, wherein the at least one billing authorization is obtained by the third party extracting the approval from a communication sent through the equipment of the third party either from the purchasing customer to the selling vendor or from the selling vendor to the purchasing customer.

5. The method according to claim **1**, wherein the at least one billing authorization is obtained by the third party monitoring the existence of a communication sent through the equipment of the third party either from the purchasing customer to the selling vendor or from the selling vendor to the purchasing customer without extracting the approval from the communication.

6. The method according to claim **1**, **2**, **3**, **4**, or **5**, wherein the third party is an Internet access provider, a cable television company, a telephone company, or a company offering financial services.

7. The method according to claim **6**, wherein the communications link is over the Internet.

8. The method according to claim **6**, wherein the at least one billing authorization does not include an account number to which to charge the purchasing customer.

9. The method according to claim **6**, wherein the at least one billing authorization is obtained in response to only a single action being performed by the purchasing customer.

10. The method according to claim **6**, wherein the at least one billing authorization is obtained over the Internet.

11. The method according to claim **6**, wherein the product is a book, flowers, software, an electronic publication, or a telecommunications product or service.

12. The method according to claim **6**, wherein the product or service is delivered over the Internet.

13. The method according to claim **6**, wherein prior to the step of charging, the third party obtaining approval from a party other than the purchasing customer to charge the purchasing customer.

14. The method according to claim **13**, wherein the party other than the purchasing customer is a credit card company, a bank, a company offering financial services, the third party, or an Internet access provider.

15. The method according to claim **13**, wherein the approval is obtained over the Internet.

16. The method according to claim **6**, wherein the step of charging comprises sending a bill or charging an account with a credit card company, a bank, a company offering financial services, a telephone company, a cable television company, the third party, or an Internet access provider.

17. The method according to claim **6**, wherein the step of remitting comprises sending a check or crediting an account with a credit card company, a bank, a company offering financial services, a telephone company, a cable television company, the third party, or an Internet access provider.

18. The method according to claim **6**, wherein only a portion of the transaction amount is remitted to the selling vendor.

19. The method according to claim **6**, wherein at least one of the steps of charging and remitting is done over the Internet.

20. The method according to claim **6**, wherein the step of remitting is performed before the step of charging.

21. An Internet billing method for a plurality of customers and a plurality of vendors of products or services for transactions over the Internet between a purchasing customer of the plurality of customers and a selling vendor of the plurality of vendors, wherein, for each purchase transaction, a transaction amount is charged to the purchasing customer, and an amount is remitted to the selling vendor, comprising the steps by a third party of:

a) establishing a billing agreement with the purchasing customer, and a remitting agreement with the selling vendor, to bill the purchasing customer, and to remit to the selling vendor, for products and services purchased over the Internet by the purchasing customer from the selling vendor;

b) providing a communications link through equipment of the third party between the purchasing customer and the selling vendor through which the purchasing customer obtains information from the selling vendor with respect to a purchase of a product or service by the purchasing customer from the selling vendor;

c) obtaining over the Internet at least one billing authorization for the purchase, which does not include an account number to which to charge the purchasing customer, from a communication sent by the purchasing customer to the third party in response to only a single action being performed by the purchasing customer;

d) charging the transaction amount to the purchasing customer in accordance with the billing agreement; and

e) remitting an amount related to the purchase to the selling vendor in accordance with the remitting agreement.

* * * * *